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Campus Administration and Deans

College Park Administration

C. D. Mote, Jr., President
Nariman Farvardin, Senior Vice President for Academic Affairs and Provost*
Linda Clement, Vice President for Student Affairs
Mel Bernstein, Vice President for Research
Jeffrey C. Huskamp, Vice President and Chief Information Officer
Douglas M. Duncan, Vice President for Administrative Affairs
Brodie Remington, Vice President for University Relations

*as of July 1, 2007

College Park Administrative Deans

Judith K. Broida, Associate Provost and Dean, Office of Professional Studies
Donna B. Hamilton, Associate Provost and Dean for the Office of Undergraduate Studies
Charles B. Lowry, Dean of Libraries
Siba Samal, Associate Dean, College of Veterinary Medicine, Maryland Campus
Charles A. Caramello, Associate Provost and Dean of the Graduate School

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### Summer Session I, 2007
- **First Day of Classes**: June 4, 2007
- **Holiday**: July 4, 2007
- **Last Day of Classes**: July 13, 2007

### Summer Session II, 2007
- **First Day of Classes**: July 16, 2007
- **Last Day of Classes**: August 24, 2007

### Fall Semester, 2007
- **First Day of Classes**: August 29, 2007
- **Thanksgiving Recess**: November 22-23, 2007
- **Last Day of Classes**: December 11, 2007
- **Study Day**: December 12, 2007
- **Final Examinations**: December 13-19, 2007
- **Main Commencement Ceremony**: December 19, 2007

### Winter Term, 2008
- **First Day of Classes**: January 2, 2008
- **Holiday**: January 21, 2008
- **Last Day of Classes**: January 22, 2008

### Spring Semester, 2008
- **First Day of Classes**: January 28, 2008
- **Spring Recess**: March 17-21, 2008
- **Last Day of Classes**: May 13, 2008
- **Study Day**: May 14, 2008
- **Final Exams**: May 15-21, 2008
- **Senior Day**: May 22, 2008
- **Main Commencement Ceremony**: May 22, 2008
- **College Commencement Ceremonies**: May 23, 2008
Accreditation

The University of Maryland, College Park, is accredited by the Middle States Association of Colleges and Secondary Schools and is a member of the Association of American Universities. In addition, individual colleges, schools, and departments are accredited by such groups as the Accrediting Council on Education in Journalism and Mass Communications, Accreditation Board of Engineering and Technology, American Assembly of Collegiate Schools of Business, American Association for Marriage and Family Therapy, American Chemical Society, American Library Association, American Psychological Association, American Society for Landscape Architecture, American Veterinary Medical Association Council on Accreditation, Commission on Accreditation for Dietetics Education, Commission on Rehabilitation Education, Council for Accreditation of Counseling and Related Educational Programs, Council on Academic Accreditation of the American Speech-Language-Hearing Association, Council on Education for Public Health, Institute for Food Technologies, National Architectural Accrediting Board, National Association of School Psychologists, National Association of School of Music, National Council for Accreditation of Teacher Education, Planning Accreditation Board, Public Relations Society of America.

Evaluated Rather Than Accredited:
Maryland Sea Grant College (National Sea Grant Review Panel), Water Resources Center (United States Department of the Interior, U.S. Geological Survey).

Validated Rather Than Accredited: Royal Institute of British Architects (RIBA).

For more information about Accreditation see www.provost.umd.edu/campus_review_2007/
UNDERGRADUATE PROGRAMS OF STUDY

College of Agriculture & Natural Resources
- Agricultural and Resource Economics
- Agricultural Science and Technology
- Animal Sciences
- Environmental Science and Policy
- Landscape Architecture
- Natural Resources Management
- Natural Resource Sciences
- Nutrition and Food Science
- Plant Sciences (coming in 2007-08)
- Pre-Veterinary Advising

School of Architecture, Planning, & Preservation
- Architecture

College of Chemical and Life Sciences
- Biochemistry
- Biological Sciences
- Chemistry
- Environmental Science and Policy
- Microbiology
- Pre-Health Professions Advising

College of Computer, Mathematical & Physical Sciences
- Astronomy
- Computer Engineering
- Computer Science
- Environmental Science and Policy
- Geology
- Mathematics
- Physical Sciences
- Physics

College of Education
- Art Education (K-12)
- Early Childhood Education
- Elementary Education - English
- Secondary Education - Foreign Language
- Secondary Education - Mathematics
- Secondary Education - Science
- Secondary Education - Social Studies
- Secondary Education - Speech and English
- Secondary Education - Theatre and English
- Special Education

A. James Clark School of Engineering
- Aerospace Engineering
Administrators and Faculty
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Philosophy
Romance Languages
Russian Language and Literature
Spanish and Portuguese Languages and Literatures
Theatre
Women's Studies

College of Behavioral and Social Sciences
African American Studies
Anthropology
Criminology and Criminal Justice
Economics
Environmental Science and Policy
Geography
Government and Politics
Hearing and Speech Sciences
Psychology
Sociology

Robert H. Smith School of Business
Accounting
Finance
General Business
Information Systems
International Business
Logistics, Transportation, and Supply Chain Management
Marketing
Operations Management

Combined Programs
Arts - Dentistry
Arts-Law
Biochemistry/Pharmacy
Animal Science/Veterinary Medicine

Multi-College Programs
Computer Engineering (CMPS, ENGR)
Environmental Science & Policy (AGNR, BSOS, CLFS, CMPS)

Bioengineering
Chemical and Biomolecular Engineering
Civil and Environmental Engineering
Computer Engineering
Electrical Engineering
Fire Protection Engineering
Materials Science and Engineering
Mechanical Engineering

College of Health and Human Performance
Family Studies
Kinesiological Science
Physical Education
Public and Community Health

Philip Merrill College of Journalism
Journalism

Office of Undergraduate Studies
Air Force ROTC
Army ROTC
Beyond the Classroom
College Park Scholars
Federal Semester
Individual Studies Program
University Honors Program

Certificate Programs
African American Studies
Asian American Studies
Computational Science
East Asian Studies
International Agriculture and Natural Resources
Latin American Studies
Lesbian, Gay, Bisexual and Transgender Studies
Science, Technology and Society
Secondary Education, Upper Division
Women's Studies
Academic Facts and Figures

<table>
<thead>
<tr>
<th>Colleges and Schools</th>
<th>Dean</th>
<th>Student Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Agriculture &amp; Natural Resources</td>
<td>Cheng-Wei</td>
<td>791</td>
</tr>
<tr>
<td>School of Architecture, Planning &amp; Preservation</td>
<td>Garth Rockcastle</td>
<td>236</td>
</tr>
<tr>
<td>College of Arts and Humanities</td>
<td>James Harris</td>
<td>3,250</td>
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<tr>
<td>College of Behavioral and Social Sciences</td>
<td>Edward Montgomery</td>
<td>4,544</td>
</tr>
<tr>
<td>Robert H. Smith School of Business</td>
<td>Howard Frank</td>
<td>2,849</td>
</tr>
<tr>
<td>College of Computer, Mathematical &amp; Physical Sciences</td>
<td>Stephen Halperin</td>
<td>1,282</td>
</tr>
<tr>
<td>College of Education</td>
<td>Donna L. Wiseman*</td>
<td>670</td>
</tr>
<tr>
<td>A. James Clark School of Engineering</td>
<td>Nariman Farvardin</td>
<td>2,558</td>
</tr>
<tr>
<td>College of Health and Human Performance</td>
<td>Robert S. Gold</td>
<td>1,192</td>
</tr>
<tr>
<td>College of Information Studies</td>
<td>Jennifer J. Preece</td>
<td>n/a</td>
</tr>
<tr>
<td>Phillip Merill College of Journalism</td>
<td>Thomas Kunkel</td>
<td>511</td>
</tr>
<tr>
<td>College of Chemical and Life Sciences</td>
<td>Norma Allewell</td>
<td>2,385</td>
</tr>
<tr>
<td>School of Public Policy</td>
<td>Steve Fetter</td>
<td>n/a</td>
</tr>
<tr>
<td>Undergraduate Studies</td>
<td>Donna B. Hamilton</td>
<td>4,836</td>
</tr>
</tbody>
</table>

Undergraduate Enrollment: 25,154
Graduate Enrollment: 9,948

*Interim as of July 1, 2007*
Administrators
and Faculty
Appendices

Five Most Popular Undergraduate Majors
- Criminology & Criminal Justice
- Economics
- Government & Politics
- Finance
- Marketing

Diversity
- Minority Faculty: 16%
- Minority Students: 33%
- Degrees Awarded to Minority Students: 30%

Research
- Sponsored research and outreach: $350 M

Fundraising
- Endowment Value: $370 M
- Private Giving: $130.3 M

State Funding
- State Appropriation: $370 M
- Percent of Budget Funded by State Appropriation: 27%

Athletics at UM
- Number of Division I sports: 27
- Number of male participants: 376
- Number of female participants: 339
- Total: 715

Five Foreign Countries from which most International Undergraduates Originate
- Republic of Korea
- India
- People's Republic of China
- Nigeria
- Japan

Did You Know?
- * At the University of Maryland we have at least one undergraduate student from every U.S. state and territory
- * Minorities comprise 33 percent of the undergraduate student population at Maryland
- * U.S. News & World Report ranks 91 programs at the University of Maryland among the top 25 in the nation
### Undergraduate Students by Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Male</th>
<th>Female</th>
<th>Totals</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black/African American: US</td>
<td>1,412</td>
<td>1,843</td>
<td>3,255</td>
<td>12.9%</td>
</tr>
<tr>
<td>Asian: US</td>
<td>1,868</td>
<td>1,678</td>
<td>3,546</td>
<td>14.1%</td>
</tr>
<tr>
<td>Hispanic: US</td>
<td>663</td>
<td>782</td>
<td>1,445</td>
<td>5.7%</td>
</tr>
<tr>
<td>American Indian: US</td>
<td>44</td>
<td>53</td>
<td>97</td>
<td>0.4%</td>
</tr>
<tr>
<td>White: US</td>
<td>7,573</td>
<td>6,537</td>
<td>14,110</td>
<td>56.1%</td>
</tr>
<tr>
<td>Foreign</td>
<td>290</td>
<td>284</td>
<td>574</td>
<td>2.3%</td>
</tr>
<tr>
<td>Unknown: US</td>
<td>1,072</td>
<td>1,055</td>
<td>2,127</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

### Where our Students Live

#### Students Living in University-Owned Residence Halls

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New Freshmen</td>
<td>3,646</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfers</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other New-to Housing Students</td>
<td>81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returning Students</td>
<td>4,516</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8,268</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Students Living in Public/Private Housing Partnership

|                                |        |        |        |       |
|                                | 704    |        |        |       |
| University Courtyards          |        |        |        |       |
| South Campus Commons           | 1,825  |        |        |       |
| Total                           | 2,529  |        |        |       |

#### Students Living in University-Owned Greek Housing

|                                |        |        |        |       |
|                                | 791    |        |        |       |
| University-owned Chapter Houses|        |        |        |       |
| Privately-owned Chapter Houses | 595    |        |        |       |
| Total                           | 1,386  |        |        |       |

#### Students Who Commute

|                                |        |        |        |       |
|                                | 12,971 |        |        |       |
| Students Who Commute           |        |        |        |       |
| Total                           | 25,154 |        |        |       |

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Chapter 1: Admission Requirements and Application Procedures

- FRESHMAN ADMISSION
- ADVANCED PLACEMENT (AP) CREDIT
- INTERNATIONAL BACCALAUREATE EXAMS (IB) AND CREDIT TABLE
- ADMISSION TO LIMITED ENROLLMENT PROGRAMS (LEP)
- SPECIAL APPLICANTS
- INTERNATIONAL STUDENT ADMISSION
- TRANSFER ADMISSION
- RESIDENCY INFORMATION
- READMISSION AND REINSTATEMENT
- GRADUATE SCHOOL
FRESHMAN ADMISSION

The University of Maryland is a publicly funded land grant institution and the flagship of the University System of Maryland. The University's Mission Statement commits it to achieving excellence as the State's primary center for research and graduate education and the institution of choice for undergraduate students of exceptional ability and promise. Consistent with this Mission, the University counts the diversity of its students among its greatest strengths and as an integral component of the educational process and academic excellence.

The undergraduate admissions process, which reflects the University's educational Mission, seeks to identify those applicants, who as individuals and as a group, will enrich and benefit from the campus learning environment, and thus benefit the entire student body. The process is structured to build entering classes of students whose varied backgrounds and experiences provide substantial evidence of their potential to:

1. Meet the University's requirements for academic success.
2. Enrich the University as a heterogeneous community.
3. Add new perspectives to the University's curriculum and scholarly pursuits.
4. Develop personal skills, including leadership, self-confidence, and intellectual engagement.
5. Contribute to the intellectual, cultural, social and political life of the University, State, and Nation.

As the University must make fine distinctions among large numbers of highly qualified applicants, the ability to assess consistently all information presented in the application becomes increasingly important. Therefore, the University employs a rigorous review process that engages the expertise of professional educators in performing individualized and holistic evaluations of each application. Each applicant is assessed on the basis of achievements and potential in a broad range of academic categories, viewed in the context of the opportunities and challenges the applicant faced. These categories include:

1. Strength of educational performance, as measured by the nature and rigor of high school curriculum and academic achievements.
2. Potential for college success, as evidenced by performance on nationally normed standardized tests.
3. Potential to promote beneficial educational outcomes and to make a positive contribution to campus and community life.
4. Persistence, and commitment to educational excellence, as evidenced by demonstrated success in facing adversity and overcoming obstacles.

Application Forms

Undergraduate application forms may be requested and submitted on-line via the web at www.uga.umd.edu, by calling 1-800-422-5867 or 301-314-8385, by sending an electronic mail message to um-admit@umd.edu, by writing to the Office of Undergraduate Admissions, Mitchell Building, University of Maryland, College Park, MD 20742-5235, or by visiting your high school guidance office.
Application Fee
A non-refundable application fee is required with each application. The fee for U.S. citizens and permanent residents is $55; the fee for international students and non-immigrants is $55.

Fall Semester Freshman Admission
The University of Maryland strongly encourages all applicants to apply by our priority application deadline to assure best consideration for admission, merit scholarships, and invitation to the University Honors Program or College Park Scholars. Admission to the University of Maryland is competitive. Each year, we receive more than 22,000 applications for a fall freshman class of over 4,000. As a result, we are unable to offer admission to all students who have the ability to be academically successful at Maryland. A completed application includes an official high school transcript, SAT or ACT scores, essay, guidance counselor recommendation form, Part I application form, and application fee.

The University utilizes a two part application. Students who submit completed applications by the priority application deadline of December 1 will be mailed a decision letter by mid-February. Students who submit completed applications by the general application deadline of January 20 will be mailed a final admission decision on April 1. Applications received after January 20 are reviewed on a space-available basis. Because of space limitations, the university is unable to offer admission to all qualified applicants.

The following calendar describes the admission process for Fall semester freshman applicants:

- **December 1: Priority application date**: Students who submit their complete applications by this date (postmarked) will receive best consideration for fall admission, merit scholarships, and invitation to University Honors or College Park Scholars. This is not a binding early decision program; all admitted students have until May 1 to confirm their enrollment. This is also the deadline for international students, as well as U.S. citizens and permanent residents with any non-U.S. academic records.

- **January 20: General application date**: Applications received after this date will be reviewed for admission and decisions released on a rolling, space-available basis.

- **Mid-February: Admission decisions released to priority applicants by mid-February**: Applicants may be admitted, denied, admitted for Spring, or asked to submit first-semester, senior year grades.

- **February 15: Priority financial aid application deadline**: For more information about need-based financial aid, see chapter 2.

- **May 1: Confirmation Date**: Deadline (postmarked) for confirming fall enrollment and requesting on-campus housing/meals.

Spring Semester Freshman Admission
The application deadline for Spring semester freshman admission is December 1. Applications received after this date will be considered on a rolling, space-available basis. The deadline for Spring Freshman admission for international students, as well as all U.S. citizens and permanent residents with any non-U.S. academic records is August 1st. A completed application includes an official high school transcript, SAT or ACT scores, essay, guidance counselor recommendation form, Part I application form, and application fee.

Financial Aid Applications
The priority deadline for Financial Aid is February 15. Students seeking financial assistance should complete the FAFSA before receiving their letter of admission. More information is available about Financial Aid in chapter 2.

Early Admission Options for High-Achieving High School Students
Concurrent Enrollment: Talented high school seniors have the opportunity to enroll at the University of Maryland for two courses, or seven credits, each semester. Successful applicants will have pursued a rigorous high school program and will have indicated exceptional performance and ability achieved over time. To apply, students must submit: the completed application and fee; high school transcript; an essay explaining why they are interested in the program; a letter of recommendation from the high school; and a letter of permission from the parents or guardian. Students must live within commuting distance. Tuition is assessed on a per-credit-hour basis. All mandatory fees apply in full.

Summer Enrollment: High school students with a strong high school record may be considered for enrollment in courses during the summer preceding their junior or senior year. They must file a regular application for undergraduate admission, including an official high school transcript. Tuition is assessed on a per-credit-hour basis. All mandatory fees apply in full.

Application Deadlines:
Spring: January 2
Summer: May 1
Fall: August 1

Early Admission: Although the University of Maryland generally requires applicants to earn a high school diploma prior to their first full-time registration, the university will admit a limited number of well-qualified students without high school diplomas. Successful applicants will have pursued a rigorous high school program and will have indicated exceptional performance and ability achieved over time. Students must be within two credits of high school graduation and have the commitment of the high school to award a diploma after successful completion of the freshman year at Maryland. To apply, students must submit: the completed application and fee, high school transcript and SAT or ACT results, an essay explaining how they will benefit from the program, and a letter of permission from the parents or guardian and a letter of support from the high school. Early admission students are eligible for on-campus housing, scholarships based on academic achievement, the University Honors Program, and College Park Scholars. Early application is advised.

High School Equivalency Examination (GED)
Maryland residents who are at least 16 years of age and who have not received a high school diploma may be considered for admission provided they have earned the high school General Education Equivalency (GED) certificate. In order to be considered for admission, the applicant must present an above average total score as well as above average scores on each of the five parts of the test.

Non-Accredited/Non-Approved High School
Students from non-accredited/non-approved high schools who seek admission to the University of Maryland should contact the Office of Undergraduate Admissions for information.

Home-Schooled Students
Students who are home-schooled should provide a transcript complete with: course descriptions, books used, methods of evaluation and the grades received. Home-schooled applicants should meet the same minimum high school course requirements expected of all applicants. Additionally, students must submit SAT and/or ACT scores. The results of these tests are strongly considered in the review of home-schooled students' application. General information about the home-schooling program or agency and a letter of recommendation from an academic professional as well as the home-schooling teacher or parent should be included with the application. If college level courses have been taken simultaneously, an official transcript should be included with the application. Home-schooled applicants should provide all of the supporting documents detailed in Part II of the application by December 1 for best consideration for fall admission.

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ADVANCED PLACEMENT (AP) CREDIT

The University of Maryland encourages applicants to seek AP credit so that academically successful students may move forward in their programs at an appropriate pace. However, credit is not granted for all exams offered by the College Board. Credits are accepted and courses are exempted, based on departmental approval, according to the chart below. Students should arrange to have their scores sent directly to the University of Maryland from the Educational Testing Service; the code is 5814. Students should also inform their advisors at Orientation that they anticipate receiving AP credit because this information may affect their placement in subject-matter courses.

If a student has already received AP credit at another institution, this credit will be reevaluated. The score received must be equivalent to the minimum score the University of Maryland accepted at the time the test was taken; otherwise, the credit will not be eligible for transfer. AP credits that are accepted are recorded as transfer credit on University of Maryland records and figure in the total number of credits earned toward graduation. Students may not receive AP credit for an equivalent course taken at the University of Maryland or elsewhere. If students earn credit in a course equivalent to an AP exam for which they also earned credit, the AP credit will be deleted from their records. Students should check with their advisors for detailed information on the assignment of AP credit.

Please note that the chart represents a general outline of AP credit. In all cases, credit is available only for grades of 3 or higher, subject to ongoing departmental reevaluation. All departments reserve the right to reevaluate the content of exams and to change the assignment of credit and course equivalencies. Any new exams offered after February 15 may or may not be evaluated by the appropriate department. Students should check with their advisor at Orientation.

Certain departments, particularly Mathematics and Physics, have separate criteria for placement in courses and the assignment of credit. Students should check with those departments for additional information. All entering freshmen will be placed in math courses according to the University of Maryland math placement exam.

### 2007-2008 University of Maryland Advanced Placement (AP) Exams and Credit Table

<table>
<thead>
<tr>
<th>AP Exam Title</th>
<th>Score</th>
<th>Related Course</th>
<th>Cr</th>
<th>Maj</th>
<th>Core</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art History</td>
<td>3,4,5</td>
<td>ARTH 100</td>
<td>3</td>
<td>No</td>
<td>Yes</td>
<td>ARTH 100 fills CORE-Arts requirement. Contact department for placement, 405-1479.</td>
</tr>
<tr>
<td>Drawing</td>
<td>4,5</td>
<td>ARTT 110</td>
<td>3</td>
<td>Yes</td>
<td>No</td>
<td>Students interested in establishing credit for specific courses must submit portfolio for evaluation; call 405-1442</td>
</tr>
<tr>
<td>General</td>
<td>4,5</td>
<td>LL Elective</td>
<td>3</td>
<td>No</td>
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<td></td>
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<tr>
<td></td>
<td>4</td>
<td>BSCI 105 and</td>
<td></td>
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http://www.umd.edu/catalog/index.cfm/show/content.section/c/48/s/582
# The Colleges and Schools

## Departments, Majors, and Programs

## Approved Courses

### University of Maryland, College Park and University of Maryland Administrators and Faculty

### Appendices

<table>
<thead>
<tr>
<th>Biology</th>
<th></th>
<th>LL Elective</th>
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<th>Yes</th>
<th>Yes</th>
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<td></td>
<td>5</td>
<td>BSCI 105 and</td>
<td></td>
<td>8</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>BSCI 106</td>
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</table>

BSCI fills a major requirement in all Life Sciences; it also fills CORE-Lab (Life) Science requirements. Contact the College of Life Sciences for placement, 405-2080.

<table>
<thead>
<tr>
<th>Chemistry</th>
<th></th>
<th>CHEM 131/132</th>
<th></th>
<th>4</th>
<th>Yes</th>
<th>Yes</th>
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<td></td>
<td>5</td>
<td>CHEM 131/132 and</td>
<td></td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CHEM 271</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</tbody>
</table>

CHEM fills a major requirement in all Life Sciences; it also fills CORE-Lab (Physical) Science requirement. Contact department for placement, 405-1791.

<table>
<thead>
<tr>
<th>Computer Science</th>
<th></th>
<th>LL Elective</th>
<th></th>
<th>4</th>
<th>No</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAVA (2004+) A</td>
<td>5</td>
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<td></td>
<td>4</td>
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<td>No</td>
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<tr>
<td>JAVA (2004+) AB</td>
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<td>LL Elective</td>
<td></td>
<td>4</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>C++ (pre-2004) A</td>
<td>4,5</td>
<td>LL Elective</td>
<td></td>
<td>4</td>
<td>No</td>
<td>No</td>
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<tr>
<td>C++ (pre-2004) AB</td>
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<td>No</td>
<td>No</td>
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<tr>
<td></td>
<td>5</td>
<td>LL Elective</td>
<td></td>
<td>6</td>
<td>No</td>
<td>No</td>
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</tbody>
</table>

Credit will be given for either the A or the AB exam, not both. Credit may be earned for both the C++ and JAVA exams. Students receiving an acceptable score on the JAVA exam (5 on A, 4 or 5 on AB) are exempt from CMSC131. Contact department for placement, 405-2672.

<table>
<thead>
<tr>
<th>Economics</th>
<th></th>
<th>ECON 201</th>
<th></th>
<th>3</th>
<th>Yes</th>
<th>Yes</th>
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</thead>
<tbody>
<tr>
<td>Macroeconomics</td>
<td>4,5</td>
<td>ECON 201</td>
<td></td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Microeconomics</td>
<td>3</td>
<td>ECON 105</td>
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<td>3</td>
<td>No</td>
<td>Yes</td>
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<td></td>
<td>4,5</td>
<td>ECON 200</td>
<td></td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
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</table>

Economics majors must score 4 or 5 to receive credit toward the major. Either ECON fills one of two CORE-Social/Behavioral Science requirements. Contact department for placement, 405-3513.

<table>
<thead>
<tr>
<th>English</th>
<th></th>
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<th></th>
<th>3</th>
<th>No</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature &amp; Comp</td>
<td>3</td>
<td>LL Elective</td>
<td></td>
<td>3</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>4,5</td>
<td>LL Elective and</td>
<td></td>
<td>6</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENGL 240</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Students with score of 4 or 5 on Lang and Comp exam satisfy CORE-Fundamental Studies Freshman Writing requirement (*ENGL 101). Students with credit for the Language exam may not receive credit for ENGL 291 or its equivalent. ENGL 240 fills CORE-Literature requirement. Contact department for placement, 405-3825.
<table>
<thead>
<tr>
<th>Language &amp; Comp</th>
<th>3</th>
<th>LL Elective</th>
<th>3</th>
<th>No</th>
<th>No</th>
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<tbody>
<tr>
<td>4,5</td>
<td>ENGL 101</td>
<td>3</td>
<td>No</td>
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**Env. Science**

<table>
<thead>
<tr>
<th>4,5</th>
<th>LL Elective</th>
<th>3</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENSP101 fills CORE-Physical Science requirement.</td>
<td></td>
<td></td>
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</table>

**French**

<table>
<thead>
<tr>
<th>Language</th>
<th>4</th>
<th>FREN 203</th>
<th>4</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language: Students with score of 4 who wish to continue should enroll in FREN 204; with score of 5 must enroll in FREN 250 or higher. Literature: Students with score of 4 should enroll in FREN 250; with score of 5 may enroll in 300-level courses. FREN 203, 204 or 211 fills CORE-Humanities requirement; FREN 250 fills CORE-Literature requirement. Contact department for placement, 405-4034.</td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>Literature</th>
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<th>FREN 204</th>
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<th>Yes</th>
<th>Yes</th>
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</thead>
<tbody>
<tr>
<td>Literature: Students with score of 4 who wish to continue should enroll in FREN 204; with score of 5 must enroll in FREN 250 or higher. Literature: Students with score of 4 should enroll in FREN 250; with score of 5 may enroll in 300-level courses. FREN 203, 204 or 211 fills CORE-Humanities requirement; FREN 250 fills CORE-Literature requirement. Contact department for placement, 405-4034.</td>
<td></td>
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<table>
<thead>
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<tr>
<td>5</td>
<td>FREN 211</td>
<td>No</td>
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<table>
<thead>
<tr>
<th>5</th>
<th>FREN 204 and</th>
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<th>Yes</th>
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</thead>
<tbody>
<tr>
<td>5</td>
<td>FREN 250</td>
<td>Yes</td>
<td>Yes</td>
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**Geography, Human**

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<tr>
<th>4,5</th>
<th>GEOG 202</th>
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</thead>
<tbody>
<tr>
<td>GEOG 202 fills one of two CORE Social/Behavioral Science requirements. Contact department for placement 405-4073.</td>
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**German**

<table>
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<tr>
<th>4</th>
<th>GERM 203</th>
<th>4</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students with score of 4 who wish to continue must enroll in GERM 204; with score of 5 must enroll in GERM 301. Contact department for placement, 405-4091.</td>
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<table>
<thead>
<tr>
<th>5</th>
<th>GERM 203 and</th>
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<tbody>
<tr>
<td>5</td>
<td>GERM 204</td>
<td>Yes</td>
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**Gov't & Politics**

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<tr>
<th>United States</th>
<th>3,4,5</th>
<th>GVPT 170</th>
<th>3</th>
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<tbody>
<tr>
<td>GVPT 170 fills one of two CORE-Social/Behavioral Science requirements. Contact department for placement, 405-4124.</td>
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<table>
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<th>Comparative</th>
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**History**

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<thead>
<tr>
<th>United States</th>
<th>4</th>
<th>HIST 156 or</th>
<th>3</th>
<th>Yes</th>
<th>Yes</th>
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</thead>
<tbody>
<tr>
<td>U.S. History: A score of 4 will be awarded three credits as chosen by the student (HIST 156 or HIST 157). A score of 5 will be awarded six credits (HIST 156 and 157). Either fills CORE-History requirement.</td>
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<p>| 5 | HIST 156 and | Yes | Yes |</p>
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
<th>Course Code</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Core Requirement</th>
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</thead>
<tbody>
<tr>
<td>European</td>
<td>4</td>
<td>HIST 112 or</td>
<td>3</td>
<td>Yes</td>
<td>European History</td>
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<tr>
<td></td>
<td></td>
<td>HIST 113</td>
<td>3</td>
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<td></td>
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<td></td>
<td>5</td>
<td>HIST 112 and</td>
<td>6</td>
<td>Yes</td>
<td></td>
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<tr>
<td>World</td>
<td>4,5</td>
<td>HIST 219</td>
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<td>World History</td>
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<td>Italian</td>
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<td>Under review</td>
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<tr>
<td>Latin</td>
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<tr>
<td>Vergil</td>
<td>4,5</td>
<td>LATN 201</td>
<td>4</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Catullus &amp; Cicero</td>
<td>4,5</td>
<td>LATN 201</td>
<td>4</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Catullus &amp; Horace</td>
<td>4,5</td>
<td>LATN 201</td>
<td>4</td>
<td>Yes</td>
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<tr>
<td>Catullus &amp; Ovid</td>
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<td>LATN 201</td>
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<tr>
<td>Mathematics</td>
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<tr>
<td>Calculus AB</td>
<td>4,5</td>
<td>MATH 140*</td>
<td>4</td>
<td>Yes</td>
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<tr>
<td>Calculus BC</td>
<td>4,5</td>
<td>MATH 140 and</td>
<td>8</td>
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<td></td>
<td></td>
<td>MATH 141</td>
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<td></td>
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<tr>
<td>Calculus BC with AB Subscore</td>
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<td>MATH 140</td>
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<td>Music</td>
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<tr>
<td>Listening/Literature</td>
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<td>Theory</td>
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<td>MUSC 140</td>
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</tbody>
</table>

*MATH 141 may be completed through credit-by-exam. MATH 140 fills both CORE-Fundamental Studies Math requirement and CORE-Math & Formal Reasoning non-lab requirement. Students who receive credit for MATH 140 or 140 & 141 may not receive credit for MATH 220 or 220 & 221. Contact department for placement, 405-5053.

The Calculus BC w/ AP subscore is treated as if the BC exam was the AB exam. Students may not receive AB subscore credit if credit was awarded for the BC exam.
### Physics

**Physics B**

<table>
<thead>
<tr>
<th>Credit</th>
<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,5</td>
<td>PHYS 121 and PHYS 122</td>
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<td>Yes</td>
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Physics C

**Mechanics**

<table>
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<tr>
<th>Credit</th>
<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>PHYS 141 or PHYS 161 or PHYS 171</td>
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<td>No</td>
<td>Yes</td>
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**Elec./Magnet.**

<table>
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<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>PHYS 142 or PHYS 260/1</td>
<td>4</td>
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<td>Yes</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Credit</th>
<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>PHYS 142 or PHYS 260/1 or PHYS 272</td>
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### Psychology

**Psychology**

<table>
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<tr>
<th>Credit</th>
<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,5</td>
<td>PYSC 100</td>
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### Spanish

**Language**

<table>
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<tr>
<th>Credit</th>
<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>SPAN 203</td>
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</table>

<table>
<thead>
<tr>
<th>Credit</th>
<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>SPAN 204 and SPAN 207</td>
<td>6</td>
<td>No</td>
<td>Yes</td>
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</table>

**Literature**

<table>
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<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>SPAN 221</td>
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<table>
<thead>
<tr>
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<th>Course</th>
<th>Hours</th>
<th>Prerequisites</th>
<th>Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>SPAN 207 and SPAN 207</td>
<td>6</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Statistics</td>
<td>4,5</td>
<td>STAT 100</td>
<td>3</td>
<td>*</td>
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<tr>
<td>------------</td>
<td>-----</td>
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</tbody>
</table>

STAT 100 fills CORE Fundamental Math requirement and CORE Math & Formal Reasoning non-lab requirement.

* STAT 100 fills program requirements in certain majors. Consult advisor.

Please Note: LL refers to courses at the lower (100 and 200) level. Students may not receive credit for AP courses and equivalent UMCP courses or transfer courses (including IB or CLEP). Credit will be deleted in such cases. Decisions about applicability of courses to CORE are updated on an ongoing basis. Consult Schedule of Classes for most recent information. Native speakers may not earn AP credit for French, German or Spanish language exams.
### INTERNATIONAL BACCALAUREATE EXAMS (IB) AND CREDIT TABLE

**2007-2008**  
The University of Maryland awards credit to students who sit for International Baccalaureate exams according to the table below. Interested students should contact the Office of Undergraduate Admissions for additional information. Note: Credit awards and course equivalencies are subject to change.

#### International Baccalaureate Exams (IB) and Credit Table

<table>
<thead>
<tr>
<th>IB Exam Title</th>
<th>Score</th>
<th>Related Course</th>
<th>Cr</th>
<th>Maj</th>
<th>Core</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>Higher</td>
<td>5, 6, 7</td>
<td></td>
<td></td>
<td></td>
<td>Under review. Students interested in Anthropology should contact an advisor for placement.</td>
</tr>
<tr>
<td>Art Design</td>
<td>Higher</td>
<td>5, 6, 7</td>
<td></td>
<td></td>
<td></td>
<td>Under review. Students interested in Art should contact an advisor for placement.</td>
</tr>
<tr>
<td>Biology</td>
<td>Higher</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>BSCI 105 fills a major requirement in all Life Sciences; also fills CORE-Lab (Life) Science requirement. Contact the College of Life Sciences for placement, 405-2080.</td>
</tr>
<tr>
<td></td>
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<td>LL Elective</td>
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<td>Yes</td>
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<td></td>
<td>Higher</td>
<td>6, 7</td>
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<td></td>
<td>BSCI 105 &amp; LL Elective</td>
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<td>Yes</td>
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<tr>
<td>Chemistry</td>
<td>Either</td>
<td>5</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>CHEM 131 &amp; CHEM 132</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
<td>CHEM fills requirement for all Life Science majors; also fills CORE-Lab (Physical) Science requirement. Contact department for placement, 405-1791.</td>
</tr>
<tr>
<td></td>
<td>Either</td>
<td>6, 7</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td></td>
<td></td>
<td>CHEM 131 &amp; CHEM 132 &amp;</td>
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<td>CHEM 271</td>
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<td>Yes</td>
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<td>Computing</td>
<td>Higher</td>
<td>5, 6, 7</td>
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<td>No</td>
<td></td>
<td>Contact department for placement, 405-2672.</td>
</tr>
<tr>
<td>Subject</td>
<td>Level</td>
<td>Score</td>
<td>Course Code</td>
<td>Credits</td>
<td>Approval</td>
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<td><strong>Economics</strong></td>
<td>Higher</td>
<td>5</td>
<td>ECON 205</td>
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<td>Yes</td>
<td>ECON majors must score 6 or 7 to receive credit toward major. ECON fills one of two CORE-Social/Behavioral Science requirements. Contact department for placement, 405-3513.</td>
</tr>
<tr>
<td></td>
<td>Higher</td>
<td>6,7</td>
<td>ECON 200 &amp; ECON 201</td>
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<tr>
<td><strong>English A/B</strong></td>
<td>Higher</td>
<td>5,6,7</td>
<td>ENGL 240</td>
<td>3</td>
<td>Yes</td>
<td>ENGL 240 satisfies CORE-Literature requirement. Contact department for placement, 405-3825.</td>
</tr>
<tr>
<td><strong>Env. Studies</strong></td>
<td>Higher</td>
<td>6,7</td>
<td>See Notes</td>
<td>3</td>
<td></td>
<td>Under review. Students interested in Environmental Science or Policy should contact an advisor for placement.</td>
</tr>
<tr>
<td><strong>French</strong></td>
<td>Standard</td>
<td>5</td>
<td>FREN 203</td>
<td>4</td>
<td>No, Yes</td>
<td>Standard: Students with score of 5 who wish to continue should enroll in FREN 204; with score of 6 or 7 should enroll in FREN 250 or higher level courses. Higher: Students with score of 5, 6 or 7 may enroll in 300-level courses. FREN 203, 204 or 211 fills CORE-Humanities requirement; FREN 250 fills CORE-Literature requirement. Contact department for placement, 405-4034.</td>
</tr>
<tr>
<td></td>
<td>Standard</td>
<td>6,7</td>
<td>FREN 204 &amp; FREN 211</td>
<td>6</td>
<td>Yes, Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Higher</td>
<td>5</td>
<td>FREN 204 &amp; FREN 250</td>
<td>6</td>
<td>Yes, Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Higher</td>
<td>6,7</td>
<td>FREN 204 &amp; FREN 250 &amp; FREN 211</td>
<td>9</td>
<td>Yes, No</td>
<td></td>
</tr>
<tr>
<td><strong>Geography</strong></td>
<td>Either</td>
<td>5,6,7</td>
<td>GEOG 100</td>
<td>3</td>
<td>No, Yes</td>
<td>GEOG 100 satisfies one of two CORE-Social/Behavioral Science requirements. Contact department for placement, 405-4053.</td>
</tr>
<tr>
<td><strong>German</strong></td>
<td>Higher</td>
<td>5</td>
<td>GERM 203</td>
<td>4</td>
<td>No, No</td>
<td>Students with score of 5 who wish to continue must enroll in GERM 204; with score of 6 or 7 must enroll in GERM 301. Contact department for placement, 405-4091.</td>
</tr>
<tr>
<td></td>
<td>Higher</td>
<td>6,7</td>
<td>GERM 203 &amp; GERM 204</td>
<td>7</td>
<td>No, No</td>
<td></td>
</tr>
<tr>
<td>History (Higher)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>---</td>
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<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>5</td>
<td>HIST 122 or HIST 123</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6,7</td>
<td>HIST 122 &amp; HIST 123</td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Americas</td>
<td>5</td>
<td>HIST 156 or HIST 157</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6,7</td>
<td>HIST 156 &amp; HIST 157</td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>5</td>
<td>HIST 112 or HIST 113</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
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<tr>
<td></td>
<td>6,7</td>
<td>HIST 112 &amp; HIST 113</td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>E/SE Asia</td>
<td>5</td>
<td>HIST 284 or HIST 285</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6,7</td>
<td>HIST 284 &amp; HIST 285</td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
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<tr>
<td>Islamic World</td>
<td>5,6,7</td>
<td>HIST 120</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>West Asia</td>
<td>5</td>
<td>HIST 120</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6,7</td>
<td>HIST 120 &amp; LL Elective</td>
<td>6</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

A score of 5 will be awarded three credits (as chosen by the student--except for West & South Asia). A score of 6 or 7 will be awarded six credits. All HIST courses listed at left fulfill CORE-History requirement. HIST112 fills CORE-Humanities/ Other. HIST 120, 122, 123, 284 and 285 also fulfill Diversity requirement.

Italian

| Standard | 5 | ITAL 203 | 4 | No | Yes |

Standard: Students with score of 5 who wish to continue
<table>
<thead>
<tr>
<th>Discipline</th>
<th>Standard/Higher</th>
<th>Exam Code</th>
<th>Credit</th>
<th>Required</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL</td>
<td>Standard</td>
<td>ITAL 204 &amp; ITAL 251</td>
<td>6</td>
<td>Yes</td>
<td>must enroll in ITAL 204; with score of 6 or 7 may enroll in 300-level courses. Higher: Students with score of 5, 6 or 7 must enroll in 300-level courses. ITAL 203 or 204 fills CORE-Humanities requirement; ITAL 251 fills CORE-Literature requirement. Contact department for placement, 405-4031.</td>
</tr>
<tr>
<td>ITAL</td>
<td>Higher</td>
<td>ITAL 211</td>
<td>6</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>ITAL</td>
<td>Higher</td>
<td>ITAL 204 &amp; ITAL 251</td>
<td>9</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Info. Tech.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No credit is awarded for this exam at this time.</td>
</tr>
<tr>
<td>Latin</td>
<td>Either</td>
<td>LATN 201</td>
<td>4</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Standard</td>
<td>MATH 220</td>
<td>0</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Higher</td>
<td>MATH 140</td>
<td>7</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Music</td>
<td>Either</td>
<td>MUSC 130</td>
<td>3</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Philosophy</td>
<td>Higher</td>
<td>PHIL 100</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Physics</td>
<td>Higher</td>
<td>PHIL 100</td>
<td>4</td>
<td>Yes</td>
<td>Under review; the IB exam fills CORE-Lab (Physical) Science requirement. Contact department for placement, 405-5979.</td>
</tr>
<tr>
<td>Psychology</td>
<td>Either</td>
<td>PSYC 100</td>
<td>3</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

http://www.umd.edu/catalog/index.cfm/show/content.section/c/48/s/1022

4/14/2008
Please Note: LL refers to courses at the lower (100 and 200) level. Students may not receive credit for IB courses and for equivalent UMCP courses or transfer courses (including AP or CLEP). IB credit will be deleted in such cases. Decisions about applicability of courses to CORE are updated on an ongoing basis. Consult Schedule of Classes for most recent information. Native speakers may not earn IB credit for any language exams.

Students who receive an International Baccalaureate Diploma or Certificate may consider presenting a portfolio to the Freshman Writing Office for review. See the Department of English web site or call the Freshman Writing Office, 405-3771, for further information.
ADMISSION TO LIMITED ENROLLMENT PROGRAMS (LEP)

Certain colleges, schools, and departments within the university have taken steps to limit enrollment in order to maintain quality programs. For the 2007-2008 academic year these included the School of Architecture, Planning and Preservation, Robert H. Smith School of Business, A. James Clark School of Engineering, Department of Government and Politics, Philip Merrill College of Journalism, Department of Natural Resource Sciences and Landscape Architecture, Department of Psychology, Department of Communication and College of Education. LEP programs are continually reviewed. Students should check the LEP Web site at www.lep.umd.edu or contact the Limited Enrollment Program Admissions Coordinator at 301-314-8385 for updated information.

Freshmen: Admission for new freshmen to Limited Enrollment Programs is competitive. Because space may be limited for a particular major, early application is encouraged. Freshmen who are directly admitted to an LEP will be subject to a performance review when they complete 45 college credits. The review varies from program to program, but always includes satisfactory performance in a set of appropriate courses. Students not passing the review will be required to choose another major. See the academic program description for specific details.

Freshmen not directly admitted to an LEP may be assigned to Letters and Sciences or to a general major within the LEP college requested. Students are not guaranteed admission to an LEP at a later date, although they may gain admission by meeting the requirements outlined in their particular program by the time they complete 45 or 60 credits at Maryland. See the following section on LEP transfer admission and the LEP program descriptions for further details about this option.

Transfers: Transfer students and on-campus students wishing to change their major to an LEP must meet a set of gateway courses with minimum grades in order to be admitted to the program. Space is limited in each program, and the most qualified applicants will be admitted each semester. Additional information for each of the limited-enrollment programs may be found in the descriptions of academic majors in chapter 7.

Transfer students who are not directly admissible to an LEP upon application to the university will be assigned to an alternate program. Those with fewer than 60 credits will be assigned to Letters and Sciences, and will be allowed the opportunity to meet the gateway requirements by the time they complete 45 or 60 credits. Students with more than 60 credits will be admitted to an interim advising program in Letters and Sciences where they will be advised regarding their qualifications for the LEP and, in some cases, the need to choose another major.

Second Major: Enrolled students interested in adding an LEP as a second major should see "Degree Requirements" in chapter 4.

Pre-Professional Programs

While professional schools do not require, favor, or prefer specific majors, pre-professional advisors can provide guidance concerning the choice of major. Undecided students may enter the Division of Letters and Sciences, but must adhere to the University of Maryland policy, that students declare a degree-granting major by the time they reach 60 credits. See www.ltsc.umd.edu/

For further information on pre-professional programs, see "Other for Credit Programs" in Chapter 7, www.prelaw.umd.edu or www.prehealth.umd.edu.
SPECIAL APPLICANTS

Golden Identification Card Program

The University of Maryland participates in the Golden Identification Card Program. The institution will make available courses and various services to persons who are 60 years of age or older, who are legal residents of the State of Maryland and who are retired (not engaged in gainful employment for more than 20 hours per week). When persons eligible for this program are admitted to the university, they register on a space-available basis for credit courses as regular or special students in any session and receive a Golden Identification card. Golden ID students must meet all course prerequisite and co-requisite requirements. Tuition is waived for these courses; however, a Golden ID administrative fee is assessed every semester. Golden ID students may register for a maximum of three courses per term. Golden ID students are not eligible for Consortium courses. The Golden Identification Card will entitle eligible persons to certain academic services, including the use of the libraries and the shuttle bus service. Such services will be available during any session only to persons who have registered for one or more courses for that semester. Golden ID students also have the opportunity to become involved with the Golden ID Student Association, which provides cultural and social events, course recommendations, and peer advising. Additional information may be obtained from the Office of Undergraduate Admissions, Ground Floor, Mitchell Building: 301-314-8385, or the Special Programs Office, 1108 Mitchell Building: 301-314-8237.

Non-Degree Seeking Students

Applicants who qualify for admission but do not desire to work toward a baccalaureate degree may be admitted as non-degree-seeking students.

Non-degree-seeking students who have received a baccalaureate degree are advised that no credit earned while enrolled may be applied at a later date to a graduate program. These post-baccalaureate students may enroll in undergraduate courses for which they possess the necessary prerequisites, but may not enroll in courses restricted to graduate students only. Students who wish to take courses at the graduate level (600 and above) must contact the Graduate School for information concerning admission requirements for Advanced Special Student status.

Non-degree-seeking students who do not have a baccalaureate degree must submit transcripts and meet regular admission standards. Transcripts are not required from students with baccalaureate degrees from a regionally accredited institution. Because of space limitation, several departments require permission be given in advance to register for classes as a non-degree student. Please contact the Office of Undergraduate Admissions for further information.

Non-degree-seeking students who are taking classes to transfer immediately back to another institution may apply without academic transcripts. These applicants must, in lieu of transcripts, submit official documentation from that institution granting permission to take course work at the University of Maryland for that particular semester.

Returning Students and Veterans

Applicants who have not attended school for more than five years, or who have had military experience, should contact both an admissions counselor and the Returning Students Program: 301-314-7693. Veterans should also contact the Veterans Affairs Office: 301-314-8239.

Students returning to the University of Maryland after a separation of five calendar years may petition the appropriate dean to have a number of grades and credits from courses previously taken at the University of Maryland, College Park, removed from the calculation of their cumulative grade point averages and from the credits applied toward graduation requirements. See information under "Registration, Academic Requirements and Regulations" in chapter 4.
INTERNATIONAL STUDENT ADMISSION

The University of Maryland seeks to enroll international students who demonstrate strong academic performance with records suggesting potential for success at Maryland. Admission is competitive and is offered to applicants whose academic credentials indicate marks of "very good" to "excellent." Due to space limitations and the competitive nature of undergraduate admission at the University of Maryland, an international applicant should submit a complete application as early as possible, and always before the deadlines listed in this section. Applications completed after a deadline will not be considered for that semester, but will be reviewed for the following semester. Evaluation of an applicant's credentials will take place only after all application materials are received. Decisions are released in writing on a rolling basis.

Applicants currently holding or intending to seek an F-1 Student or J-1 Exchange Visitor visa to study in the United States are considered international applicants and should observe the following instructions. All other non-immigrant visa holders (including A, E, G, H, I, and L) should follow the Freshman and Transfer instructions preceding and following the International Student Admission section.

Freshman Admission - International
You are considered a freshman applicant if you have completed fewer than 12 semester hours of university-level credit past secondary school at the time you plan to enter the University of Maryland. Successful freshman applicants demonstrate satisfactory completion of diverse college-preparatory subjects in secondary school, proficiency in English, and evidence of sufficient funds to cover all expenses. Due to space limitations, we are unable to offer admission to all students who have the ability to be successful academically at the University of Maryland.

The Fall (August) deadline for applications to be received is December 1. The Spring (January) general deadline is August 1.

All of the following documents must be submitted before the freshman final deadline for an applicant to be considered for undergraduate admission: International Student Application for Undergraduate Admission; nonrefundable application fee (U.S. $55.00); official secondary school transcripts in native language with certified literal English translations and, where appropriate, original results and certificate of completion from a national secondary school examination; all official university or college transcripts in native language with certified literal English translations (if any); proof of English proficiency; SAT or ACT official results (if three or more years of high school completed in U.S.); statement of activities; an essay; and Certification of Finances, including supporting documents that demonstrate support of U.S. $38,615 per year. Current F-1 and J-1 Visa Holders must also provide photocopies of their I-94 Arrival/Departure Record, visa stamp, and current I-20 or DS-2019 form. Current other non-immigrant Visa Holders must also provide photocopies of their I-94 Arrival/Departure Record and visa stamp.

Transfer Admission - International
You are considered a transfer applicant if you have completed 12 or more semester hours of university-level credit past secondary school at the time you plan to enter the University of Maryland. Successful transfer applicants demonstrate better than average grades in strong academic courses, proficiency in English, and evidence of sufficient funds to cover all expenses. Due to space limitations, we are unable to offer admission to all students who have the ability to be academically successful at the University of Maryland.

The Fall final deadline for applications to be received is March 1. The Spring (January) final deadline is August 1.
All of the following documents must be submitted before the transfer final deadline for an applicant to be considered for undergraduate admission: International Student Application for Undergraduate Admission; nonrefundable application fee (U.S. $55.00); all official university or college transcripts in native language with certified literal English translations; proof of English proficiency; statement of activities; and Certification of Finances, including supporting documents that demonstrate support of U.S. $38,615 per year. Current F-1 and J-1 Visa Holders must also provide photocopies of their I-94 Arrival/Departure Record, visa stamp, and current I-20 or DS-2019 form. Current other non-immigrant Visa Holders must also provide photocopies of their I-94 Arrival/Departure Record and visa stamp. Students with fewer than 30 semester hours must also provide official secondary school transcripts in native language with certified literal English translations and, where appropriate, official results and certificate of completion from a national secondary school examination.

**English Proficiency**
Non-native English speakers (regardless of citizenship) who seek admission to the University of Maryland must verify their proficiency in English by taking and submitting an official score report from one of the following English proficiency exams: TOEFL (Test of English as a Foreign Language); or IELTS (International English Language Test System). Those whose native language is English, who earn an SAT critical reading score of 480 or higher, or who have earned a post-secondary degree from a university in an English-speaking country do not need to take or submit scores from an English proficiency exam. Transfer credit for an English composition course does not waive the English proficiency exam.

**Visa Records**
Applicants Residing Outside of the United States: To enter the United States, international students residing abroad will need a passport from their government and a visa from the U.S. Consulate. In order to obtain a visa for the purposes of studying in the United States, the applicant must present a Certificate of Eligibility form to the U.S. Consulate. The university will issue this form to admitted students who have submitted proof of having sufficient funds to cover the cost of a program of study. Admitted students with personal, family, or other source of private funding will be issued the Certificate of Eligibility form I-20 in order to obtain the F-1 Student Visa. Admitted students who are sponsored by agencies, foundations, or their home government, or are participating in an established exchange program may be issued the Certificate of Eligibility form DS-2019 in order to obtain the J-1 Exchange Visitor Visa.

Applicants Currently Residing in the United States: Applicants currently holding F-1 Student or J-1 Exchange Visitor status in the United States need to submit a photocopy of their I-94 Arrival/Departure Record, visa stamp, and current I-20 or DS-2019 form along with proof of having sufficient funds to cover the cost of a program of study. Applicants holding another type of non-immigrant status need to submit a photocopy of their I-94 Arrival/Departure Record and visa stamp, and must indicate if they intend to seek a change to F-1 Student or J-1 Exchange Visitor status. Upon admission and submission of the appropriate financial support documentation, the university will issue the appropriate Certificate of Eligibility form (I-20 or DS-2019) to the student.

**General Certificate of Education Exams**
The University of Maryland awards between 4 and 8 semester credits for most A-level exams completed with a grade of C or better. Up to 4 semester credits may be awarded for certain AS-level exams completed with acceptable grades.

For further information, contact the Office of Undergraduate Admissions via email at um-admit@umd.edu or 301-314-8385.

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TRANSFER ADMISSION

A student who has attended any regionally accredited institution of higher education following graduation from high school and attempted 12 or more credits will be considered for admission as a transfer student. Transfer applicants must be in good academic and disciplinary standing at their previous institutions to be eligible for transfer to the University of Maryland.

When the number of students desiring admission exceeds the number that can be accommodated at this institution, or in a particular professional or specialized program, admission will be based on the overall strength of the student's academic performance.

Requirements
Admission for transfer applicants is primarily based on the number of credits a student has earned and academic achievement for all college-level work. In calculating eligibility, the university will use the average stated on the transcript by the sending institution. When an applicant has attended more than one institution, a cumulative average for all previous college work attempted will be computed. To be considered, course work must have been completed at a regionally accredited college or university. All students with grade point averages below 3.0 will be considered on a space-available basis. Students who were not admissible as high school seniors must complete at least 30 semester hours with the grade point average as stated above. In accordance with Maryland Higher Education Commission and Board of Regents transfer policies, applicants from Maryland public institutions are, in some instances, given special consideration, and, when qualified and space is available, may be admitted with a cumulative grade point average of 2.0 or higher.

Application Dates

<table>
<thead>
<tr>
<th>Semester</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring</td>
<td>November 15 (August 1 with any non-US academic records)</td>
</tr>
<tr>
<td>Fall Priority</td>
<td>March 1</td>
</tr>
<tr>
<td>Fall</td>
<td>June 1 (April 30 with any foreign academic records)</td>
</tr>
</tbody>
</table>

Transfer from Maryland Public Institutions

Currently, applicants who have attended Maryland public Institutions may be admitted in accordance with the criteria outlined in the previous paragraph. The university subscribes to the policies set forth in the Maryland Higher Education Commission and Board of Regents transfer policies. When the number of students desiring admission exceeds the number that can be accommodated in a particular professional or specialized program, admission will be based on criteria developed by the university to select the best qualified students.

Articulated transfer programs are available at each Maryland community college. An articulated transfer program is a list of courses that best prepare applicants for a particular course of study at the University of Maryland. Applicants who take appropriate courses specified in the articulated program and earn acceptable grades are guaranteed transfer with no loss of credit. Articulated transfer programs help students plan their new programs after changing career objectives. Computerized articulation information, called ARTSYS, is available at the Office of Undergraduate Admissions at the University of Maryland, in the transfer advisor's office at each of the community colleges, and at all other Maryland public institutions. Applicants can eliminate all doubt concerning transfer of courses by following articulated programs.

General Transfer Information
Admitted students will receive a preliminary review of transfer credit within two weeks after receiving the letter of admission. An official review of transfer credit occurs thereafter, with final determination of applicability made by an academic advisor/evaluator in the office of the appropriate dean for the major. Generally, college-level courses completed at regionally-accredited institutions will transfer provided that grades of at least "C" (2.0) are earned and the course is similar in content and scope to work offered at Maryland. The regional accrediting bodies are Middle States Association of Colleges and Schools, New England Association of Schools and Colleges, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges. Up to 60 credits from a community or two-year college, and 90 credits from a four-year college, may be applied toward the degree. Students are required to complete at least their final 30 credits at Maryland to earn a Maryland degree.

Transfer of course work completed at Maryland public colleges and universities is covered by the Maryland Higher Education Commission (MHEC) transfer policies (see complete text later in this section). Maryland will accept grades of "D" or better from appropriate course work completed at a regionally-accredited Maryland public institution, including other institutions in the University System of Maryland.

The Transfer Credit Center provides articulation information and assistance to students and transfer advisors. The Center, a joint effort between the Offices of Undergraduate Admissions and the Office of the Registrar, has computerized and consolidated the transfer credit evaluation process. It provides incoming students from domestic institutions with information on acceptability of credits and transfer equivalencies, subject to adjustment by advisors within the student's individual program. Certain courses (e.g., those not appearing or not fully elaborated in the sending institution's current catalog) may require additional information such as syllabi, portfolios, etc., before evaluation.

Information on transferability of specific courses to the University of Maryland, College Park may be accessed on the web at www.tce.umd.edu/TCE/.

Each college-level course will be evaluated individually, with applicability toward major or general education requirements determined by the appropriate academic unit. The university does not transfer blocks of courses, such as those completed through the Associate's Degree. See "Departments, Majors and Programs" for specific general education and major requirements.

Credit will be posted to your Maryland record only from official transcripts sent from the institution at which the credit was completed. Students who have earned credit through Advanced Placement (AP), International Baccalaureate (IB), or College-Level Examination Program (CLEP) subject area exams must have scores sent directly from the testing board, even if they are already posted on a transcript from another institution.

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>ACCEPT CREDITS?</th>
<th>EQUIVALENT OR REQUIRED CREDITS</th>
<th>GRADES/Scores WHERE APPROPRIATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE Non Collegiate Courses</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Placement Program (CEEB)</td>
<td>Yes</td>
<td>E or R¹</td>
<td>3 or higher (see chart in Chapter 1)</td>
</tr>
<tr>
<td>CLEP</td>
<td>Yes</td>
<td>E or R¹</td>
<td>See chart in Chapter 4</td>
</tr>
<tr>
<td>Community College of the Air Force</td>
<td>Yes</td>
<td>E or R¹</td>
<td>C (2.0) or higher equivalent grade as appropriate to dept.</td>
</tr>
<tr>
<td>Correspondence courses</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dantes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defense</td>
<td>Yes</td>
<td>E or R¹</td>
<td>Scores as appropriate to language institute department</td>
</tr>
<tr>
<td>Departmental exams from</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Some transfer credit policies are under review. Please call Undergraduate Admissions for current information.
1. Courses must be similar in depth and scope to University of Maryland courses. Applicability is determined by the appropriate dean.
2. Professional courses are generally not transferable. Course taken at a regionally-accredited institution may be reviewed by the appropriate dean.

**Statement on Transfer of Course Credit**

The University of Maryland welcomes transfer students and has transfer agreements (sometimes referred to as "articulation" agreements) to encourage and aid students in their efforts to take appropriate courses prior to transfer. Each course is evaluated individually for students seeking to transfer to the University of Maryland. Credit is granted for courses that are applicable to a Bachelor of Arts or Bachelor of Science degree, and for which a grade of C or above was earned. Courses completed at Maryland public two- or four-year institutions may be transferred with grades of D or above provided that course content is appropriate to our academic programs.

**Maximum Number of Transfer Credits Accepted**

The University of Maryland has direct transfer agreements with all Maryland community colleges, as well as other junior and community colleges outside of the state. The university will accept for transfer a maximum of 60 credits from a two-year program and 90 credits from a four-year program for courses in which a grade of C or above was earned and which are appropriate to an approved curriculum at this institution. See the above paragraph for required course grades.

**Maximum Number of Credits Allowed for Non-Traditional Learning**

Students who have acquired college-level learning through work or other non-collegiate activities may wish to translate their experience into credits at Maryland by validation through the national CLEP examination (College-Level Examination Program) or credit-by-examination administered by academic departments. The university will accept a maximum of 30 hours of credit through examination.

**Minimum Number of Credits Required Through Classroom Instruction in the Major Field and for the Degree**

The University of Maryland requires a minimum of 120 semester hours of credit for an undergraduate degree; some programs require more. Regardless of the total number of transfer credits, students must complete at least their last 30 credits at the University of Maryland, College Park.

**Statement on Transfer of General Education Requirements**

As directed by the Maryland Higher Education Commission Transfer Policy, transferable courses taken in fulfillment of general education requirements at a Maryland public institution will be applied toward Maryland's CORE requirements. Careful planning with an academic advisor will ensure that students take appropriate credit and maximize their credit transfer. The total number of general education credits for a Maryland public institution transfer or post baccalaureate credits will not exceed that required of native students.

**Transfer credit Policy**
Maryland Higher Education Commission (Title 13B)
See Chapter 10, Appendix N, for complete policy

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RESIDENCY INFORMATION

Residency Classification Office, 1130 Mitchell Building
301-314-9596; Fax: 301-314-7915
E-mail: resclass@deans.umd.edu
www.testudo.umd.edu/ro

Petitions, related documents and questions concerning the residency policy of the University of Maryland for the determination of in-state status should be directed to the Residency Classification Office in the Office of the Registrar.

Determination of In-State Status for Admission and Tuition Purposes: See the "Appendix H' in the "Appendices" section of this web site for the complete text of this policy.

An initial determination of in-state status will be made by the Office of Undergraduate Admissions at the time a student's application for admission is considered. The determination made at that time, and any determination made thereafter, shall prevail in each semester until the determination is successfully challenged. Students may challenge their classification by submitting a timely petition to the Residency Classification Office. Determinations are based on the residency policy and requirements. The deadline for submitting a complete petition along with all supporting documents, is the first day of the semester in which the student wishes to be classified as in-state.

The volume of requests for reclassification may necessitate a delay in completing the review process. A decision in each case will be made within 60 days of receipt of a complete petition and all required documentation. During this period of time, or any further period of time required by the university, any fees and charges based on the previous determination must be paid. The student is solely responsible for any late charges incurred by the residency process. If the determination is changed, any excess fees and charges will be refunded.

Students classified as in-state for admission and tuition purposes are responsible for notifying the Residency Classification Office in writing within 15 days of any change in their circumstances that might in any way affect their classification at the University of Maryland.

For the full text of the Board of Regents Policy, and other resources please click here.

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READMISSION AND REINSTATEMENT

Students who are admitted and do not register for their first semester or cancel registration prior to beginning their first semester must apply again for admission (see Freshman or Transfer Admission). Students who are admitted as "Term Only" also must apply again for admission if they wish to register for a subsequent term.

Students who have matriculated and registered and did not maintain that registration continuously (Fall and Spring semesters) to graduation, must apply for readmission or reinstatement to re-enroll at the University of Maryland.

See "Withdrawal and Leave of Absence from the University" in chapter 4 for more detailed information.

Readmission
Students must apply for readmission if they interrupt registration for one or more semesters and were not academically dismissed at the conclusion of the last semester of attendance.

Reinstatement
Students who are academically dismissed from the University must apply for reinstatement. All applications for reinstatement are reviewed by a Faculty Petition Board. Students may apply for reinstatement for the semester immediately following dismissal or for any subsequent semester. Only the Faculty Petition Board can grant reinstatement.

Students who are denied reinstatement will be required to comply with specific recommendations made by the Faculty Petition Board in order to be considered for reinstatement in a future semester.

Reinstatement After Withdrawal
Students who withdraw from the University must apply for reinstatement if they interrupt enrollment for one or more semesters. Students who were academically dismissed at the conclusion of the previous completed semester also must apply for reinstatement (see Undergraduate Policy on Probation and Dismissal). Students should contact the Office of Undergraduate Admission for more information about readmission and reinstatement.

Deadlines
There are no deadlines for readmission. For full consideration, students applying for reinstatement must observe the following deadlines:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td>July 1</td>
</tr>
<tr>
<td>Winter Term</td>
<td>November 1</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>December 1</td>
</tr>
<tr>
<td>Summer Session I</td>
<td>May 1</td>
</tr>
<tr>
<td>Summer Session II</td>
<td>June 1</td>
</tr>
</tbody>
</table>

All students are encouraged to apply early in order to take advantage of early registration.

Summer School
Students who are dismissed at the end of the Fall semester are not eligible to attend Summer sessions unless or until they are approved for reinstatement. Students dismissed at the end of a Spring semester may attend any Summer sessions prior to being reinstated. However, these students must be approved for reinstatement in order to attend during the subsequent Fall
semester.

**Winter Term**
Students dismissed at the end of the Fall semester may attend Winter Term prior to being reinstated. Winter Term is offered to students who have attended during the preceding Fall semester. Students with a break in attendance must be reenrolled to be eligible to attend Winter Term. Students readmitted/reinstated for a Spring semester may also attend Winter Term.

**Clearances**
Clearances from Judicial Programs, the Bursar, Health Center, International Education Services, and/or the Graduate School may be requested of the applicant.

**Applications**
Applications for readmission and reinstatement are available at the Office of Undergraduate Admissions, ground floor, Mitchell Building and may be requested by calling 301-314-8385. Applications and information may also be accessed via the web at [www.uga.umd.edu/admissions/apply/reenrollment.asp](http://www.uga.umd.edu/admissions/apply/reenrollment.asp).

**Additional Information**
For additional information contact the Office of Undergraduate Admissions, ground floor, 0117 Mitchell Building, University of Maryland, College Park, MD 20742-5251, 301-314-8385 or [www.uga.umd.edu](http://www.uga.umd.edu).

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GRADUATE SCHOOL

Those who have earned or will earn a bachelor's degree at a regionally accredited college or university in the United States, or the equivalent of this degree (as determined by the University of Maryland, College Park) in another country, will be considered for admission to the graduate school. Criteria are listed on the Graduate School's Web site. Requests for information about graduate programs or correspondence concerning application for admission to Graduate School at the University of Maryland should be addressed to the Graduate School, 2123 Lee Building, University of Maryland, College Park, MD20742-5121 or email gradschool@umd.edu. To apply online, visit the graduate school's home page on the web at www.gradschool.umd.edu. For further information, contact the Graduate School Information Center, 301-405-0376.
Chapter 2: Fees, Expenses and Financial Aid

- TUITION AND BILL PAYMENT INFORMATION
- UNDERGRADUATE TUITION AND FEES*
- EXPLANATION OF FEES
- FINANCIAL AID
- MERIT BASED FINANCIAL ASSISTANCE
- NEED-BASED FINANCIAL ASSISTANCE
- COLLEGE AND DEPARTMENTAL SCHOLARSHIPS

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TUITION AND BILL PAYMENT INFORMATION

Financial Services Center
1135 Lee Building, 301-314-9000 and 1-888-313-2404
www.umd.edu/bursar

Tuition and fees for the University of Maryland, College Park, are listed in the next section. The university requires that all deposits and fees be paid by stated deadlines, or penalties must be imposed. Many potential administrative difficulties can be avoided if students carefully follow published procedures and notify the appropriate office(s) of any changes that might affect their financial obligation to the university. This includes updating your email address so communication concerning your billing is prompt, and notifying the Bursar's Office of changes of address so that mail affecting the student's financial relationship with the university will not be delayed or returned.

College Park sponsors a deferred-payment plan. Information regarding the Terp payment plan is available by calling 301-314-9000 or 1-888-313-2404 or at www.umd.edu/bursar. All charges incurred during a semester are payable immediately. Returning students will not be permitted to complete registration until all financial obligations to the university, including library fines, parking violations, and other penalty fees and service charges, are paid in full.

Payment for past due balances and current semester fees is due on or before the first day of classes. Students who register in advance must pay their bills in full prior to the general registration period. Students who register after the initial registration period are required to make full payment by the due date indicated to avoid cancellation of their enrollment and loss of their classroom seats to other students.

Although the university bills students monthly, it cannot assume responsibility for their receipt. Students are reminded that it is their responsibility to notify the university of any change in their email address. If a student bill is not received on or before the beginning of each semester, it is the student's responsibility to obtain a copy of the bill either online at www.umd.edu/bursar and choose "student account inquiry" or from the Financial Services Center, 1135 Lee Building. The office is open Monday through Friday, 8:30 a.m. to 4:30 p.m.

All checks or money orders should be made payable to the University of Maryland for the exact amount due. Student's name and student's University ID number should be written on the front side of the check. University grants and scholarships will be posted to the student's account. However, the first bill mailed prior to the beginning of each semester may not include these deductions.

Students are urged to check their residence hall and dining service agreements for procedures for cancellation of reservations and for deadlines for receiving refunds of deposits. Refunds cannot be made after these deadlines, even if the student decides not to attend the University of Maryland, College Park.

Students will incur a late payment fee in the event of failure to pay a balance on their student account by its due date. A late payment fee of $10.00 or 5%, whichever is higher, will be assessed in addition to the total past due amount. An additional 1.5% finance charge will be charged monthly if the account is not settled.

Students who fail to pay the indebtedness during the semester in which delinquency occurs will be ineligible to advance register for subsequent semesters until the debt and the penalty fees are cleared.

In the event of actual registration for a subsequent semester by a delinquent student who has not settled his or her student account prior to that semester, such registration will be canceled and no credit will be earned for the semester.
The state has established, under legislative mandate, a Central Collections Unit (CCU) within the Department of Budget and Fiscal Planning. The university is required by state law to refer all delinquent accounts to the State Collections Unit. Please note that Maryland law allows the Central Collections Unit to intercept state income tax refunds for individuals with delinquent accounts, and that CCU is authorized to notify a National Credit Bureau of the delinquency at the time the account is referred to it for collection.

**All accounts due from students, faculty, staff, non-students, etc., are included within these guidelines.**

Central Collections Unit costs incurred in collecting delinquent accounts will be charged to the student. The minimum collection fee is 17% plus attorney and/or court costs.

No degrees, diplomas, certificates, or transcripts of records will be issued to students who have not made satisfactory settlement of their accounts.

**Note:** Additional Information on Student Financial Obligations, Disclosure of Information, Delinquent Accounts, and Special Fees, can be found in the "Policy Statements" section at the beginning of this catalog.

**Payment of Fees**

All checks, money orders, or postal notes should be made payable to the University of Maryland. The student's University ID number must be written on the front of the check. VISA, MasterCard, American Express, and Discover credit cards are accepted. Sign up now for online billing and payments at www.umd.edu/bursar.

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# Undergraduate Tuition and Fees*

*An Important Fee Notice: Notwithstanding any other provision of this or any other University publication, the University reserves the right to make changes in tuition, fees, and other charges at any time deemed necessary by the University and the University System of Maryland Board of Regents. Tuition and fee information is published in the Schedule of Classes each semester and is also available on-line at [www.testudo.umd.edu](http://www.testudo.umd.edu)*

## 2007-2008 Academic Year—Estimated*

### Full-time Undergraduate Students

*(For billing purposes, a student is considered full-time if the number of credit hours enrolled is 12 or more.)*

<table>
<thead>
<tr>
<th></th>
<th>Total Academic Year Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$ 6,566</td>
</tr>
<tr>
<td>Mandatory Fees <em>(maximum charged to all students registered for 9 or more credits)</em></td>
<td>1,302</td>
</tr>
<tr>
<td>Board Contract <em>(Regular Point Plan)</em></td>
<td>3,567</td>
</tr>
<tr>
<td>Lodging <em>(Includes $140 Telecom fee)</em></td>
<td>5,287</td>
</tr>
<tr>
<td>Technology Fee</td>
<td>101</td>
</tr>
</tbody>
</table>

### Maryland Residents (In-state)

<table>
<thead>
<tr>
<th></th>
<th>Total Academic Year Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$ 20,805</td>
</tr>
<tr>
<td>Mandatory Fees <em>(maximum charged to all students registered for 9 or more credits)</em></td>
<td>1,302</td>
</tr>
<tr>
<td>Board Contract <em>(Regular Point Plan)</em></td>
<td>3,567</td>
</tr>
<tr>
<td>Lodging <em>(includes the $130 Telecom fee)</em></td>
<td>5,287</td>
</tr>
<tr>
<td>Technology Fee</td>
<td>101</td>
</tr>
</tbody>
</table>
# Tuition and Fees for Part-time Undergraduate Students

*(For billing purposes, a student is considered part-time if the number of credit hours enrolled is 11 or fewer)*

- **In-State Tuition** *(per credit hour)*  
  $ 273

- **Out-of-State Tuition** *(per credit hour)*  
  867

**Mandatory Fees** *(per semester)*

<table>
<thead>
<tr>
<th>Credit Hours</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-11 credit hours</td>
<td>$651</td>
</tr>
<tr>
<td>8 or fewer credit hours</td>
<td>$296</td>
</tr>
</tbody>
</table>

- **Technology Fee** *(per semester)*
  - 9-11 credit hours *(per semester)*  
    $50
  - 8 or fewer credits *(per semester)*  
    $25

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EXPLANATION OF FEES

Mandatory Fees

Student Fees: The mandatory fee assessment for undergraduate students is based on a number of requested credit hours as follows: Students registered for 9 or more credits: $626.00 per semester; students registered for 8 or fewer credits: $287.00 per semester.

Student Activities Fee (Refundable): Charged to all undergraduate students at the request of the Student Government Association. It is used in sponsoring various student activities, student publications, and cultural programs.

Auxiliary Facilities Fee (Refundable): Charged to all students. This fee is paid into a fund that is used for capital improvement, expansion, and construction of various campus facilities such as open recreation areas (tennis courts, basketball courts, etc.), transportation alternatives, and the Stamp Student Union. These projects are not funded or are funded only in part from other sources.

Athletic Fee (Refundable): Charged to all students for the support of the Department of Intercollegiate Athletics. All students are encouraged to participate in all of the activities of this department or to attend the contests if they do not participate.

Shuttle Bus Fee (Refundable): Charged to all students for the support of the shuttle bus transportation system.

Stamp Student Union and Recreational Fee (Refundable): Charged to all students and is used to expand recreational facilities and Stamp Student Union services.

Recreation Services Fee (Refundable): Charged to all students specifically to support the construction and operation of Ritchie Coliseum and the Campus Recreation Center, a multi-use facility that includes basketball and racquetball courts, indoor and outdoor pools, an indoor jogging track, and multipurpose activity spaces.

Performing Arts and Cultural Center Fee: Charged to all students to support the operation of the Clarice Smith Performing Arts Center.

Telecommunications Fee: Assessed to all students living in university residence halls.

Technology Fee: Charged to undergraduate students, to support the improvement of the computer systems on campus.

Other Fees

Undergraduate Application Fee (Non-Refundable): Charged to all new applicants. $55

Graduate Application Fee (Non-Refundable): Charged to all new applicants. $60

Enrollment Confirmation Deposit (Non-Refundable): $200. All newly admitted undergraduate students who intend to matriculate in the Fall or Spring semester must submit a $200 deposit which is credited to their tuition charges when they enroll. Should the student decide not to enroll for the specific semester of application, the $200 deposit is forfeited and

http://www.umd.edu/catalog/index.cfm/show/content.section/c/49/s/1023
cannot be used to offset any charges, including orientation charges, the student may incur.

Students admitted for the Fall semester must submit this deposit by May 1 or within 30 days from their date of admission, whichever is later, to reserve their place in the entering class. Students admitted for the Spring semester must submit this deposit by December 1 or within 14 days of their date of admission, whichever is later, to reserve their place in the entering class.

**Pre-College Orientation Program Registration Fee:** $145 (two-day program), $101 (one-day program), $60.00 (per person). These charges are for Summer 2006.

**Late Registration Fee:** $20. All students are expected to complete their registration on the regular registration days. Those who do not complete their registration during the prescribed days must pay this fee.

**Special Fee for students requiring additional preparation in mathematics (MATH 003, 010, 011, 013 and 015) per semester:** $240. (Required of students whose curriculum calls for MATH 110 or 115 and who do not pass the qualifying examination for these courses.) This Special Math Fee is in addition to course charge. Students enrolled in this course and concurrently enrolled for nine or more credit hours will be considered as full-time students for purposes of assessing fees.

**Cooperative Education in Liberal Arts, Business, and Science (UNIV 098-099) Per Semester:** $60

**Engineering COOP Program (ENCO 098-099) Per Semester:** $60

**Other Special Fees:** The university offers a number of courses (MBA, ENTS, Chemical and Life Sciences) that have special course fees in addition to, or in lieu of, the standard tuition charges. Students are encouraged to contact the department prior to registering for the class to determine the total cost of the course.

**Fees for Auditors:** Fees for auditors and courses taken for audit are the same as those charged for courses taken for credit at both the undergraduate and graduate levels. Audited credit hours will be added to hours taken for credit to determine full-time or part-time status for fee assessment purposes. Special Students are assessed fees in accordance with the schedule for the comparable undergraduate or graduate classification.

**Special Examination Fee (Credit-by-Exam):** $30 per course for all undergraduates and full-time graduate students; credit-hour charge for part-time graduate students.

**Parking Registration Fees:** All students enrolled for classes at the university and who drive or park a vehicle anywhere or anytime on the campus must register to park on campus each academic year. For additional information, please refer to Department of Transportation Services.

**Textbooks and Supplies:** Textbooks and classroom supplies vary with the course pursued, but averaged $952 in 2006-2007 (two semesters).

**Service Charges for Dishonored Checks:** Payable for each check which is returned unpaid by the drawee bank on initial presentation because of insufficient funds, payment stopped, post-dating, drawn against uncollected items, etc.

For checks up to $100: $10

For checks from $100.01 to $500: $25

For checks over $500: $50

When a check is returned unpaid, the student must redeem the check and pay any outstanding balance in the account within 10 days or late fees may be assessed and the account transferred to the Central Collection Unit for legal follow-up. Additionally, a minimum 17% collection charge
is added to the charges posted to the student's account at the time the transfer is made. When a check is returned unpaid due to an error made by the student's bank, the student must obtain a letter from the branch manager of the bank or a person of equivalent status admitting the error. This letter must be submitted to the Office of the Bursar to have the service charge waived.

**Overdue Library Charges:** For items from the library's main circulating collections, charges are .50 cents per day per item, and recalled item fines are $2 per day. If an item is lost or mutilated, the borrower is charged the estimated cost of the item plus a processing fee to cover acquisition and cataloging costs. Different fine rates may apply to other library collections.

**Maryland English Institute Fee:** Semi-intensive, $3,372. Intensive, $6282. Students enrolled with the Maryland English Institute pay this fee in support of the Institute. Students enrolled in the semi-intensive program may also enroll for regular academic courses and pay the tuition and fees associated with those offerings. The program also offers non-credit courses in American English Pronunciation (UMEI 006) for $933 and Fluency Program or Advanced Writing (UMEI 007, 008) for $1,240. These charges are for Fall 2007 and are subject to change.

**Property Damage Charge:** Students will be charged for damage to property or equipment. When responsibility for the damage can be fixed, the individual student will be billed for it; when responsibility cannot be fixed, the cost of repairing the damage or replacing equipment will be prorated among the individuals involved.

**Late Payment Fee:** Per-semester fee of 5% of overdue amount, or $10, whichever is greater, plus an additional 1.5% on each subsequent billing.

**Withdrawal and Refund of Fees:** Students compelled to leave the university at any time during the academic year should meet with their academic college advising office and secure a form for withdrawal. The completed form and identification card are to be submitted to the academic college advising office which will communicate results to the Office of the Registrar. Students will forfeit their right to a refund if the withdrawal action described above is not adhered to. The effective date used in computing refunds is the date the withdrawal form is filed in the academic college advising office. Stop payment on a check, failure to pay the semester bill, or failure to attend classes does not constitute withdrawal. Refund requests should be processed by students with the Office of the Bursar, otherwise any credit on the student account could be carried over to the next semester. If a Cancellation of Registration is submitted to the Office of the Registrar before the official first day of classes the student is entitled to full credit of semester tuition.

Undergraduate students withdrawing from the university will be credited for tuition and fees in accordance with the following schedule:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to 1st day of classes</td>
<td>100%</td>
</tr>
<tr>
<td>1st 10 days of classes</td>
<td>80%</td>
</tr>
<tr>
<td>3rd week</td>
<td>60%</td>
</tr>
<tr>
<td>4th week</td>
<td>40%</td>
</tr>
<tr>
<td>5th week</td>
<td>20%</td>
</tr>
<tr>
<td>After 5th week</td>
<td>No Refund</td>
</tr>
</tbody>
</table>

Note: First-semester freshmen who receive Title IV aid and who withdraw will receive a refund in accordance with federal regulations.

**Prior to the first day of classes,** if full-time undergraduates drop a course or courses, thereby changing the total number of credits for which they are registered to 11 or fewer, charges for the semester will be assessed on the basis of the per-credit-hour fee for part-time students. However, if students later add a course or courses thereby changing the total number of credits for which they are registered to 12 or more, they will be billed for the difference between per-credit-hour fees paid and the general fees for full-time undergraduates.

**If during the first five days of classes** full-time undergraduates drop a course or courses thereby changing the total number of credits for which they are registered to 11 or fewer,
charges for the semester will be assessed on the basis of part-time charges plus 20% of the difference between the full-time fees and appropriate part-time charges. After the first five days of classes, there is no refund for changing from full-time to part-time status. Students who register as part-time undergraduate students and apply for a refund for courses dropped during the first week of classes will be given an 80% refund. No refund will be made for courses dropped thereafter.

No part of the charges for room and board is refundable except when students officially withdraw from the university or when they are given permission by the appropriate officials of the university to move from the residence halls and/or to discontinue dining hall privileges. In these cases, the room refund will be computed by multiplying the number of periods remaining by the pro rata weekly rate after adjusting for a service charge. Refunds to students having full board contracts will be calculated in a similar manner. No room and/or board refunds will be made after the 14th week of the semester. Students are reminded that reservations for room and board must be canceled by the date published in the residence hall and dining services agreement(s).

In computing refunds to students who have received the benefit of scholarships and loans from university funds, the computation will be made to return the maximum amount to the scholarship and loan accounts without loss to the university.

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FINANCIAL AID

Office of Student Financial Aid  
Student Financial Services Center  
1135 Lee Building, 301-314-9000  
Email: umfinaid@umd.edu  
www.financialaid.umd.edu

The Office of Student Financial Aid (OSFA) administers all types of federal, state, and institutional financial assistance programs, and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. The primary responsibility for financing attendance at the University of Maryland, College Park, lies with students and families. Scholarships, grants, loans, and work-study positions are awarded on the basis of academic ability and/or financial need as determined by a federal needs analysis system. It is the intent of OSFA to provide assistance to students who might not otherwise be able to pursue college studies due to financial constraints.

Financial aid funds are limited; therefore, all new, readmitted, and returning students must follow these steps to receive priority consideration for financial aid:

1. Submit admissions applications and all necessary supporting documents to the Office of Admission by the appropriate deadlines. (Deadlines are listed in chapter 1.)

2. Complete a Free Application for Federal Student Aid (FAFSA) after January 1. FAFSAs are available from OSFA online at www.financialaid.umd.edu. A new FAFSA is required for each academic year of the student’s enrollment.

   New students should not wait to be admitted before filing the FAFSA. A financial aid application has no bearing on a student’s admission application. However, students will not receive final consideration for aid until they are admitted to a degree program.

3. Mail the FAFSA to the Federal Processor no later than February 1, so that it is received by the processor by February 15. Applying online helps to expedite the process. Income for the previous year may be estimated initially and corrected later on the Student Aid Report.

Applications received before February 15 will be given priority consideration.

General Regulations Applicable to All Forms of Aid

Full-Time Status. For most types of aid, students must attempt at least 12 credit hours through the schedule adjustment period each semester in order to receive the full financial aid award. Please refer to the standards of Satisfactory Academic Progress when considering dropping below 12 credit hours for any given semester.

Citizenship Status. In order to be eligible for federal, state, or university financial assistance, students must be United States citizens or eligible non-citizens.

Default/Owe Refund: Students cannot be in default on an educational loan, nor can they owe any refund on a Pell Grant or Supplemental Educational Opportunity Grant (SEOG) previously awarded at any post-secondary institution.
Degree-Seeking: Students must be working toward a degree or certificate. Students must be admitted to the university as "degree-seeking."

Satisfactory Progress: Students must be making satisfactory progress toward a degree or certificate according to the Standards for Satisfactory Academic Progress published in the Schedule of Classes.

Selective Service: To receive federal financial aid, male students must register with Selective Service if they are at least 18 years old and born after December 31, 1959, unless they are not required by law. The federal government will verify compliance of this registration requirement.

Receiving a Non-University Award: If a student receives assistance (scholarship or loan) from a non-university source, the university may reduce the financial aid awarded by the university. It is the student's responsibility to notify the Office of Student Financial Aid of all outside awards.

Change in Financial Situation: It is the student's responsibility to notify the Office of Student Financial Aid of any changes to his or her financial circumstances during the year.

Reapplication Requirement: Need-based assistance is not automatically renewed from year to year. All students requesting need-based aid must reapply by submitting a new or renewal FAFSA annually. Such reapplication must indicate continued financial need as well as Satisfactory Academic Progress.

Award Policy: Financial aid is normally a combination of grants, loans, and student employment. The financial aid "package" is determined by the availability of financial aid and the financial circumstances of each student. It is not necessary to make any special application for university grants. The Office of Student Financial Aid will determine awards that best fit the needs and qualifications of the candidates.

Estimating Educational Cost

A budget of average educational costs is used in determining the amount of aid that a student is awarded during the academic year. A typical budget for an undergraduate at the University of Maryland, College Park, is as follows:

Dependent student living on campus/off campus*

(not with parent/relative)

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and Fees</td>
<td></td>
</tr>
<tr>
<td>In-State: Maryland Resident</td>
<td>$7,906</td>
</tr>
<tr>
<td>Out-of-State: DC, other states, other countries</td>
<td>21,345</td>
</tr>
<tr>
<td>Room</td>
<td>5,137</td>
</tr>
<tr>
<td>Board</td>
<td>3,425</td>
</tr>
<tr>
<td>Books</td>
<td>952</td>
</tr>
<tr>
<td>Personal expenses and commuting</td>
<td>2,785</td>
</tr>
<tr>
<td>Total In-State</td>
<td>$20,205</td>
</tr>
<tr>
<td>Total Out-of-State</td>
<td>$33,644</td>
</tr>
</tbody>
</table>

*The above budget is subject to change for the 2007-2008 academic year. To determine the final costs for the 2007-2008 academic year, please contact the Student Financial Services Center.
MERIT BASED FINANCIAL ASSISTANCE

Scholarships

Several scholarships are available to the highest-achieving students at the University of Maryland, College Park. Two types of scholarships are available: those based solely on academic or creative talent (merit-based), and those based on financial need as well as academic or creative talent (need-based). The eligibility criteria for the different scholarships vary and are listed below. For more information on these programs, students are encouraged to contact the office or department responsible for selecting the recipients. Please see the list of departmental scholarships at the end of this chapter. Current information about scholarships is also available on the Web at www.uga.umd.edu.

Banneker/Key Scholarship: The University of Maryland seeks to identify and select some of the brightest high school seniors in the nation to continue their education as Banneker/Key Scholars. Students selected for this prestigious award will receive full financial support for four years, which covers tuition, room, board, mandatory fees, and a book allowance. They will also be admitted to the University Honors Program and will be afforded many other opportunities for participation in intellectual enrichment programs. For full consideration, students must submit an admission application, application fee, official transcript, essay, recommendations, and official copies of SAT or ACT scores to the Office of Undergraduate Admissions by December 1 for the following academic year. Selection is based upon academic achievement plus extracurricular activities, awards and honors, and an essay. Semifinalists are given a personal interview. Factors such as a candidate's involvement in community service, talents or skills, leadership, and character all play a part in the final awards. Contact the Office of Undergraduate Admissions or see www.uga.umd.edu for more information.

Regents Scholars Program: The Regents Scholars Program recognizes the extraordinary achievement of outstanding freshmen students. New awards are made each year in the amount of full in-state tuition, room, board, and mandatory fees. Recipients are automatically admitted to the University Honors Program. A select number of the top high school scholars in the state will be considered for this most prestigious award. A complete admission application, application fee, official transcript, essay, recommendations, and SAT or ACT scores must be submitted to the Office of Undergraduate Admissions by December 1 for consideration for the Regents Scholars Program for the following academic year. Contact the Office of Undergraduate Admissions for more information.

National Merit Scholarships: The University of Maryland, College Park is a sponsoring institution in the National Merit Scholarship competitions. The University offers $2,000 scholarships for each of four years to in-state merit finalists who indicate College Park as their first-choice institution. Other merit finalists are awarded scholarships ranging from $750 to $2,000. To qualify, submit an admission application, application fee, official transcript, essay, recommendation, and official copies of SAT I or ACT scores no later than December 1. Contact the Office of Undergraduate Admissions for more information.

President's Scholarship: This award provides talented undergraduate students with tuition support for four years. Awards ranging from $2,000 to $8,000 per year are offered to incoming freshmen. Students are selected through the admission process with primary consideration given to academic performance in high school (high school courses and achievement) and standardized test scores (SAT or ACT). For full consideration, students must submit a complete application for admission by December 1. Contact the Office of Undergraduate Admissions at www.uga.umd.edu for more information.

President's Transfer Scholarship: This scholarship is a two-year $5,000 per year tuition scholarship for transfer students. Students do not have to fill out a separate application to be
considered as they will be evaluated based on their application to the University of Maryland. The scholarship will be awarded to the most competitive transfer students with the strongest academic records and college grade point averages. Students who are awarded the scholarship will receive notification by mail about two weeks after they receive their letter of admission. Contact the Office of Undergraduate Admissions at www.uga.umd.edu.

**Weinberg Regents Scholarship:** The Board of Regents has designated the Weinberg Regents Scholarship to be awarded to a Maryland community college transfer student in order to continue the commitment to outstanding students. In order to be selected for this award, a student must have exceptional qualifications, including achievement of a 4.0 grade point average, completion of the Associate of Arts degree at a Maryland community college, evidence of creative and intellectual activities or scholarly potential, and have been admitted to one of the University System of Maryland institutions. The deadline for submitting the candidate's application material is June 15. The winner may receive the scholarship for two years, totaling no more than four semesters including Summer sessions. For information, contact the University System of Maryland Administration at 301-445-1992.

**Transfer Academic Excellence Scholarship:** These awards are available to outstanding students transferring from Maryland community colleges. The awards cover in-state tuition and mandatory fees for two years of undergraduate study. To be eligible for consideration, students must have an overall grade point average of 3.5 for all college work attempted, and must have completed an Associate of Arts degree or the entire first two years of courses for the major in which the student expects to enroll. Students who have previously attended the University of Maryland, College Park, are ineligible for this scholarship. Candidate nomination forms are available in early January from the Office of Undergraduate Admissions or from community college advisors. The deadline for receipt of the application, official transcripts, and scholarship materials is mid-March. Contact the Office of Undergraduate Admissions.

**Honors Scholarship:** Honors students already attending Maryland are eligible to apply for one of these $500 awards. Financial need is not a criterion for selection. Regents, Banneker-Key, and President's Scholarship recipients are not eligible for Honors Scholarships. To be considered, students must be first- or second-year students, have at least a 3.2 grade point average, and be making satisfactory progress toward the completion of requirements for an Honors citation. In addition, applicants must submit an essay on their academic goals and plans for achieving them. Contact the University Honors Program.

**University of Maryland Departmental Scholarships:** Some Colleges and departments at the university offer a variety of merit scholarships. Most departmental scholarships require a student to have a minimum grade point average of 3.0 and be registered for a minimum of 12 credits per semester. For information regarding departmental scholarships, please contact the appropriate College or department.

**Creative and Performing Arts Scholarships:** These are competitive scholarships which are awarded annually. Primary consideration will be given to entering freshmen and transfer students from community colleges who have outstanding talent in art, dance, music, or theater. The scholarships cover in-state tuition and mandatory fees and are renewable for up to three additional years based upon an acceptable level of performance as defined by the respective departments. Auditions and/or portfolios are required. Contact the College of Arts and Humanities.

**Deans' Scholarships:** This award provides talented undergraduate students with tuition support for one to two years. Awards ranging from $1,500 for one year to $4,500 for two years are offered to incoming freshmen. To be considered, students must submit a complete application no later than December 1. Contact the Office of Undergraduate Admissions at www.uga.umd.edu.

**Maryland State Scholarships:** The Maryland State Scholarship Administration (MSSA), located in Annapolis, awards both need- and merit-based scholarships to Maryland residents. There are currently 16 different programs available, including the Guaranteed Access Grant, Educational Assistance Grant, the Senatorial Scholarship, the House of Delegates Scholarship, and the Distinguished Scholar Award. You may obtain more information about these and other awards by calling MSSA at 800-974-1024. All Maryland residents are expected to apply for State Scholarship assistance. Initial application for many of the awards is made through the Free Application for Federal Student Aid (FAFSA). Please note that filing the FAFSA is sufficient to apply for most Maryland State Scholarships at UMCP, although some may require additional
application forms. The application deadline for most programs is March 1. FAFSAs are available from the UMCP Office of Student Financial Aid or online at www.financialaid.umd.edu.

**Scholarships from Other States:** Several states have reciprocal agreements with the State of Maryland. Students who are residents of these states may receive funds for study in eligible post-secondary institutions in Maryland. Interested students should contact their state scholarship agencies for information.

**Scholarship Searches:** A broad range of scholarships are available from private sources. Usually, these awards are not as well publicized as the state and university programs. Therefore, students should conduct a scholarship search to locate such sources. The University of Maryland offers access to several services to students to aid them in their searches. Access our Web site at www.financialaid.umd.edu to use these services.

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NEED-BASED FINANCIAL ASSISTANCE

Grants

The Office of Student Financial Aid administers several grant programs for undergraduates. Awards are made based on financial need as determined by the FAFSA. Grants do not have to be repaid. Access our web site at www.financialaid.umd.edu for more information.

Federal Pell Grant: This grant provides a "foundation" of financial aid, to which aid from other sources may be added. Only undergraduates who are seeking their first bachelor's degree and have exceptional need may receive a Federal Pell Grant. All undergraduates will be considered for this grant regardless of when their applications were received. Students may receive the Federal Pell Grant for less than full-time attendance, although the award will be pro-rated based on the number of credits attempted. Awards range from $400 to $4,050.

Federal Supplemental Educational Opportunity Grant (FSEOG): The FSEOG is awarded to full-time undergraduates with exceptional need. Priority is given to Federal Pell Grant recipients. To be considered for FSEOG, students must meet OSFA's priority application deadline of February 15. The minimum award is $200. The maximum award is dependent upon government funding. The funds are divided among as many deserving students as possible.

Academic Competitiveness Grants (ACG) and National Science and Mathematics Access to Retain Talent (SMART) Grants: Academic Competitiveness Grant, Section 401A of the "Higher Education Reconciliation Act of 2005" establishes a grant program for students who have concentrated in math/science or a foreign language critical to U.S. Security.

Grants for first or second year undergraduate students are called "Academic Competitiveness Grants (ACG)." Grants for third or fourth year undergraduate students are called "National Science and Mathematics Access to Retain Talent (SMART) Grants."

Students who are eligible for the ACG grants must be a U.S. citizen, enrolled full-time in an undergraduate program, have completed a "rigorous high school program", file the Free Application for Federal Student Aid (FAFSA) and eligible for the federal Pell grant. The ACG grant amount is up to $750 for first year students and $1300 for second year students over two semesters.

Students who are eligible for the SMART grants must be a U.S. citizen, enrolled full-time in an approved undergraduate program, have a 3.0 GPA, file the Free Application for Federal Student Aid (FAFSA) and eligible for the federal Pell grant. The SMART grant amount is up to $4000 over two semesters.

Institutional Grants: The university awards grants to full-time students who demonstrate financial need and meet OSFA's priority application deadline of February 15. There are three funds from which institutional grants are awarded, the UM Scholarship, Frederick Douglass Grant and the UM Grant. OSFA selects the recipients of these awards based on availability of funds and the qualifications of the applicants. The UM Scholarship may be awarded to undergraduates with demonstrated need and high academic achievement. The UM Grant and Frederick Douglas Grant may be awarded to any undergraduate with demonstrated need. Award amounts for these programs range from $500 to $3,500.

Self-Help
Financial aid also consists of self-help assistance such as employment and student loan programs. Most of these programs are awarded based on need as determined by the FAFSA. Access our web site at [www.financialaid.umd.edu](http://www.financialaid.umd.edu) for additional information.

**Federal Work-Study:** The Federal Work-Study (FWS) Program provides students with the opportunity to earn money to meet their educational and personal expenses. Money earned from the FWS program does not have to be paid back. To be considered for FWS, students must meet OSFA’s priority application deadline of February 15. This award is need-based and may range from $800 to $2,500. Pay rates depend on the level of complexity of the work, but will be at least the federal minimum wage. Like all university employees, FWS employees receive a paycheck every other week for the hours worked. Most FWS jobs are on campus, though opportunities exist through the Community Service Program for FWS students to work off campus at several Federal Government Agencies. The number of hours students may work is limited to 20 per week while school is in session and 40 per week during vacations and summer break.

**Paid Internships:** Students with paid internships sign a contract at the beginning of the semester that states the payment amount for the number of hours to be worked during that semester. The payment amount is advanced to the student’s account at the start of each semester. This program differs from Federal Work-Study in that students receive all "wages" at the start of each semester, as opposed to a bi-weekly pay check, and those funds are applied directly to the student’s account. Several offices and departments on campus, including Shuttle UM, Residential Facilities, and Dining Services, offer paid internships. Students should contact the department or office for which they are interested in working.

**Federal Perkins Loan:** The Perkins loan is a low-interest rate (5%) loan for students with exceptional financial need. This is a loan borrowed from the school, and must be repaid. To be eligible, students must meet OSFA’s priority application deadline of February 15. The amount of the award will depend upon the student’s need and may range from $200 to $2,000. New borrowers (those who first receive a Federal Perkins Loan after July 1, 1988) have a grace period of nine months after graduating or leaving school before they must begin repayment of their Federal Perkins Loan(s). Interest will begin accruing at the time of repayment. This loan is interest-free while students are attending school and enrolled at least half time in a degree-seeking program.

**Federal Stafford Loan:** This is a low-interest-rate loan for students who attend at least half-time. Application is made through the school’s financial aid office via the FAFSA. Eligibility for this loan is based on need, not credit worthiness. This loan is borrowed by the student and must be repaid.

There are two types of Federal Stafford Loans, subsidized and unsubsidized. The subsidized Stafford loan is awarded to students with demonstrated financial need; this loan is interest-free while students are attending school and enrolled at least half-time in a degree-seeking program. Students who do not demonstrate financial need, or who do not demonstrate sufficient need to borrow a fully subsidized Stafford loan, may borrow a Federal Unsubsidized Stafford Loan. The unsubsidized loan is interest bearing. Students borrowing an unsubsidized Stafford loan will be required to repay the principle and any interest that may accrue during school attendance. All students who wish to apply for either Federal Stafford Loan must complete the FAFSA. The interest rate will be fixed at 6.8% as of July 1, 2006. Students who graduate or drop below half-time status are granted a six-month grace period before repayment of the Stafford loan is required.

The following are the maximum loan amounts per academic year: $3,500 for undergraduates with freshman status, $4,500 for undergraduates attaining sophomore status, and $5,500 for undergraduate students who attain junior or senior status. If students do not demonstrate sufficient need to borrow the maximum subsidized Federal Stafford Loan, they may borrow the difference in a Federal Unsubsidized Stafford Loan. The maximum borrowing limit for most undergraduates is $23,000.

**Federal PLUS (Parent Loans For Undergraduate Students):** This is a non-need-based loan, which parents may borrow to help defray the cost of their dependent children’s education. The Federal PLUS enables parents to borrow the full yearly cost of attendance (as determined by the school) minus all other financial aid. Otherwise, there is no yearly or cumulative borrowing limit. Because this loan is not need-based, submission of the FAFSA is not required to apply. However, borrowers must first submit the PLUS loan application to the school for
calculation and certification of the maximum loan amount that the parent may borrow per student per year. The Federal PLUS is granted to borrowers based on credit-worthiness as determined by the lender whom the borrower selects. The interest rate for the Federal PLUS is fixed at 8.5%. Repayment of the PLUS begins 60 days after the last disbursement for the loan period and the maximum repayment period is 10 years.
COLLEGE AND DEPARTMENTAL SCHOLARSHIPS

Some UM colleges and departments offer merit-based scholarships. Most departments will only consider students who enroll for 12 credits per semester, and who have a grade point average of at least 3.0. Some of these scholarships are open to prospective freshman and transfer students. Some of them are only open to continuing UM students. For additional information regarding departmental scholarships please contact the appropriate college or department or visit www.financialaid.umd.edu/Scholarships/departmental.html.

COLLEGE OF AGRICULTURE AND NATURAL RESOURCES

Agricultural & Resource Economics
Animal and Avian Sciences
Biological Resources Engineering
Environmental Sciences
Institute of Applied Agriculture
Natural Resource Sciences
Natural Resources Management Program
Nutrition & Food Science
Plant Science and Landscape Architecture
Veterinary Medicine

COLLEGE OF ARTS AND HUMANITIES

American Studies
Art
Art History & Archaeology
Asian & East European Languages and Cultures
Classics
Communication
Comparative Literature
Dance
English Language and Literature
French & Italian Languages and Literatures
Germanic Studies
History
Jewish Studies Program
Linguistics
Music
Philosophy
Spanish & Portuguese Languages and Literatures
Theatre
Women's Studies

COLLEGE OF BEHAVIORAL AND SOCIAL SCIENCES

African American Studies
Anthropology
Criminology & Criminal Justice
Economics
Geography
Government and Politics
Hearing and Speech Sciences
Joint Program in Survey Methodology
Psychology
Study of Terrorism and Responses to Terrorism

COLLEGE OF COMPUTER, MATHEMATICAL, AND PHYSICAL SCIENCES

Applied Mathematics
Astronomy
Computer Science
Geology
Mathematics
Meteorology
Physics
Statistics Program

**COLLEGE OF EDUCATION**
Counseling & Personnel Services
Curriculum & Instruction
Education Policy, Planning, and Administration
Human Development (Institute for Child Study)
Measurement, Statistics & Evaluation
Special Education

**COLLEGE OF HEALTH AND HUMAN PERFORMANCE**
Family Studies
Health Education
Kinesiology

**PUBLIC AND COMMUNITY HEALTH**

**COLLEGE OF JOURNALISM**

**COLLEGE OF LIBRARY AND INFORMATION SERVICES**

**COLLEGE OF CHEMICAL AND LIFE SCIENCES**
Biology
Cell Biology & Molecular Genetics
Chemistry & Biochemistry
Entomology
Environmental Sciences
Marine-Estuarine Environmental Sciences

**A. JAMES CLARK SCHOOL OF ENGINEERING**
Aerospace Engineering
Chemical Engineering
Civil and Environmental Engineering
Electrical and Computer Engineering
Fire Protection Engineering
Materials and Nuclear Engineering
Mechanical Engineering
Reliability Engineering

**ROBERT H. SMITH SCHOOL OF BUSINESS**

Accounting
Business
Decision and Information Technologies
Finance
Hinman Entrepreneurship
Logistics, Business and Public Policy
Management and Organization
Marketing
Quest Program

**SCHOOL OF ARCHITECTURE, PLANNING and PRESERVATION**

Architecture
Urban Studies and Planning Program
School of Public Policy
Environmental Policy Program
James MacGregor Burns Academy of Leadership
Public Policy
Public Sector Financial Management
Social Policy
Interdepartmental Programs
Chemical Physics Program
Environmental Science and Policy (BSOS)
Systems Engineering

**RETURNING STUDENTS PROGRAM/COUNSELING CENTER**

Irwin S. Kamin Adult Learner Emergency Fund
Charlotte W. Newcombe Scholarship
Gerald G. Portney Memorial Scholarship
Returning Students Program
Women's Forum Scholarship

UNDERGRADUATE STUDIES

Academic Achievement Programs
Air Force Aerospace studies Program
Army ROTC
College Park Scholars Program
Hillman Entrepreneurship Program
Individual Studies Program
Lesbian, Gay, Bisexual and Transgender Equity
Letters and Sciences
National Scholarships Office
University Honors Program

UNIVERSITY RELATIONS

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Chapter 3: Campus Administration, Resources, and Student Services

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Office of the President

1101 Main Administration Building
301-405-5803
Clayton Daniel Mote, Jr., President
www.umd.edu/PRES

The president is the chief executive officer of the University of Maryland. Six vice presidents, who report to the president, manage different divisions of the campus administration. The Office of Human Relations Programs, the Department of Intercollegiate Athletics, and the Maryland Fire and Rescue Institute report to the Office of the President. The University Senate, a representative legislative body of the university, advises the president on academic and other matters.


**Academic Affairs**

1119 Main Administration Building  
301-405-5252  
Nariman Farvardin, Senior Vice President and Provost  
www.provost.umd.edu

The Senior Vice President for Academic Affairs and Provost is the chief academic officer of the university with responsibility for guiding the academic development and direction of the institution in accordance with the university's mission; ensuring that our programs and faculty are of the highest caliber; supporting the diversity of our students, faculty, and staff as a special strength; and promoting academic excellence across the university. The deans of the 13 colleges and schools at the University report directly to him as do the deans for undergraduate, graduate, and continuing and extended education, the dean of the libraries and the chief information officer. The senior vice president and provost oversees the development, review, and implementation of all academic policies and regulations; consults closely with the University Senate and other faculty advisory groups on academic programs and policies; and serves as liaison with other university divisions in strategic and long-range planning.

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Administrative Affairs

1132 Main Administration Building
301-405-1105
Douglas M. Duncan, Vice President
www.adminaffairs.umd.edu

The Office of the Vice President for Administrative Affairs is responsible for the effective management of the physical, fiscal, and staff support resources of the institution. The office also provides campus safety and security, materials management, and other necessary support services. Of particular interest to students are the community awareness and security programs offered by the Department of Public Safety and the information and assistance services provided by the Bursar for concerns of students regarding university billings.

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The Office of the Vice President for Student Affairs provides administrative leadership for 15 departments which oversee student life and development. This includes services and research that help students clarify and fulfill their needs and objectives, and that contribute to a constructive campus learning environment. The office serves as a general point of contact for students and their families regarding student life. The office maintains liaison with the university chaplains, the Student Government Association (SGA), and the Graduate Student Government (GSG). The Office of the Vice President for Student Affairs also provides administrative support for the Senior Council, Parent and Family Affairs, and Student Affairs Development.
Office of Human Relations Programs

1130 Shriver Laboratory, East Wing
301-405-2838
www.umd.edu/OHRP

The Office of Human Relations Programs (OHRP) advises and assists the President in the promotion of the university mission as it relates to multiculturalism, broadly conceptualized (i.e., race (inclusive of color and creed); ethnicity; language; national or geographic origin; socioeconomic class (inclusive of educational level, employment status, and familial configuration); sex and gender; gender identity and expression; sexual orientation; physical, developmental, and psychological ability; religious, spiritual, faith-based, or secular affiliation; age and generation; physical appearance, environmental concern; and, on the basis of the exercise of rights secured by the First Amendment). More specifically, we facilitate partnership building between various constituencies of students, faculty, and staff on these issues as they impact schooling and are oriented toward the realization of an inclusive and therefore affirming environment for every citizen of the university community.

The Office of Human Relations Programs (OHRP) is responsible for initiating action in compliance with institutional, state, and federal directives to provide equal education and employment opportunities for university students, faculty, and staff members. We also monitor the outcomes of actions taken in this regard, reporting our findings to the President, the Campus Senate, and to the campus community at large. We provide students, faculty, and staff with general information on equity efforts and on the status of equity and compliance matters at the university. Students, faculty, or staff having a concern about possible inequities in educational or employment matters, or who wish to register a complaint, may contact either the Campus Compliance Officer at 301-405-2839, or a member of the Campus' Equity Council (see Equity Council in chapter 3).

The Office of Human Relations Programs (OHRP) sponsors initiatives that promote intergroup relationship building, sexual harassment and hate crimes prevention, multicultural organizational development, and processes complaints of discrimination following procedures set forth in the University's Human Relations Code (the complete text of this Code may be found in chapter 10).

The efforts of the OHRP are directed toward the development of our students, faculty, and staff becoming principled leaders, predisposed to progressive action; becoming democratic citizens as outstanding in what they do as in who they are with respect to their commitment to furthering the tenets of equity and justice for all.

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Equity Council

1119 Main Administration Building
301-405-5793
www.president.umd.edu/EqCo/index.cfm

The Equity Council serves as an advisory group to the President and supports the longstanding and continuous goal of the University of Maryland to be a national leader in recruiting and retaining a diverse community of faculty, staff and students. The Council provides leadership in the articulation and development of affirmative action policies and procedures for the campus community. A particular focus of the Equity Council is to review and recommend, as appropriate, search and selection policies and procedures for the university and its colleges and departments. The Council consists of equity administrators from each Vice President and Dean's office and the Office of the President. The Special Assistant to the President for Equity Diversity serves as Chair of the Council.

Dr. Robert E. Waters, Jr., Chair, Office of the President
301-405-5793
1119 Main Administration Building
rewaters@umd.edu

Dr. Javaune Adams-Gaston, Career Center/Student Affairs
301-314-7236
3100 Hornbake Library
jadams@umd.edu

Dr. Viki Annand, College of Health and Human Performance
301-405-2473 2302
Health and Human Performance Building
va5@umail.umd.edu

Ms. Gloria Aparicio, Office of Administrative Affairs
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1132 Main Administrative
ga44@umail.umd.edu

Dr. Dianne Barlow, College of Information Studies
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4105 Hornbake Library
dbarlow@umd.edu

Dr. Cordell W. Black, Office of Academic Affairs
301-405-7227
1127C Main Administration
cblack@umd.edu

Mr. Paul Brown, Maryland Fire and Rescue Institute
MFRI Administrative Headquarters Building
301-226-9963
pbrown@mfri.org

Ms. LaVern Chapman, Robert H. Smith School of Business
301-405-7103
2407 Van Munching Hall
lchapman@rhsmith.umd.edu

Ms. Roberta H. Coates, Office of the President
301-405-5795
2148 Tawes Fine Arts Building
rcoates@umd.edu

Ms. Barbara Duncan, College of Agriculture and Natural Resources
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1122 Symons Hall
bduncan@umd.edu

Ms. Ingrid Farrell, School of Architecture, Planning and Preservation
301-405-6310
1248 Architecture Building
ifarrell@umd.edu

Ms. Cynthia Hale, College of Behavioral and Social Sciences
301-405-1684
2141 Tydings Hall
chale@umd.edu

Ms. Lee Ellen Harper, Office of Professional Studies
301-405-2224
2103 Reckord Armory
lharper@umd.edu

Ms. Sharon Hodgson
College of Chemical and Life Sciences
301-405-2384
2313 Symons Hall
shodgson@umd.edu

Ms. Wendy A. Jacobs, College of Arts and Humanities
301-405-2354
1103 Francis Scott Key Hall
wajacobs@umd.edu

Dr. Ronald Lipsman, College of Computer, Mathematical and Physical Sciences
301-405-2319
3417 A.V. Williams Building
rlipsman@deans.umd.edu

Ms. Johnnieque Love, University Libraries
301-405-9048
7233 McKeldin Library
jl345@umail.umd.edu

James Newton, Office of Undergraduate Studies
301-405-6851
2130K Mitchell Building
jnewton@umd.edu

Dr. Gary Pertmer, A. James Clark School of Engineering
301-405-5227
2309 Chemical & Nuclear Engineering
pertmer@eng.umd.edu

Mr. William L. Powers, School of Public Policy
301-405-6336
2101 Van Munching Hall
wpowers@umd.edu

Ms. Olive Reid, Philip Merrill College of Journalism
301-405-2390
2115 Journalism Building
oreid@umd.edu

Ms. Carolyn Trimble, University Human Resources
301-405-5648
3100 Chesapeake Building
ctrimble@umd.edu
Office of Undergraduate Studies

2130 Mitchell Building
301-405-9363
www.ugst.umd.edu

Associate Provost and Dean: Donna B. Hamilton
Associate Dean: Katherine Mc Adams
Interim Assistant Dean: Dr. Ann C. Smith
Assistant Dean: Lisa Kiely
Assistant Dean: Deborah Reid Bryant
Assistants to the Dean: James Newton, Kathryn Robinson, Laura Slavin

Through its many programs, the Office of Undergraduate Studies serves all undergraduate students at the University and the faculty and staff that support the undergraduate mission of the campus. The Office of Undergraduate Studies is the primary division at the University of Maryland responsible for leadership and oversight of undergraduate curricular and co-curricular education.

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University Relations

2119 Main Administration Building
301-405-4680
Brodie Remington, Vice President
www.urhome.umd.edu

The office of the Vice President for University Relations conducts a variety of programs to develop greater understanding of and support for the University of Maryland among its many publics. Units of this office include Development, Marketing and Communications, University of Maryland College Park Foundation Administration, Special Events, and Alumni Relations. University Relations is responsible for campus-wide advancement programs in fund-raising, alumni affairs, production of official campus publications, films and video presentations, media relations, and management of major campus events.

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University Senate

1100 Marie Mount Hall
301-405-5805
www.senate.umd.edu

The University Senate, an integral part of the institution's system of shared governance, has representation from all segments of the campus community: faculty, staff, undergraduate students, and graduate students. Participation in the Senate or any of its 15 Standing Committees is an honor and a responsibility.

The full Senate meets approximately nine times a year to consider matters of concern to the institution, including academic issues, university policies, plans of organization, facilities, and the welfare of faculty, staff, and students. The Senate advises the president, the chancellor, or the Board of Regents as appropriate. To become a student senator, students must be elected by students in their college or school or the Office of Undergraduate Studies in centralized, online elections. Elections are held every year during the spring semester. Students are also encouraged to participate in Senate Standing Committees, such as Student Affairs and Human Relations. These committees draw membership from the campus community at large and cover every aspect of campus life and function. Details about the election and appointment process are available from the University Senate Office.
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Academic Achievement Programs

2110 Marie Mount Hall
301-405-4736
Executive Director: Dr. Jerry L. Lewis
www.aap.umd.edu

The Academic Achievement Programs (AAP) primarily provides resources and opportunities for low-income individuals, first generation college students, disabled students and traditionally under-represented students.

For more information, see Office of Undergraduate Studies section in Chapter 6.

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Undergraduate Catalog 2007-2008

Admissions

Ground Floor, Mitchell Building
301-314-8385
www.uga.umd.edu

The services offered by the Office of Undergraduate Admissions are designed to meet the individual needs of prospective students. The office provides general information about the University of Maryland through brochures, letters, information sessions, and campus tours. Admissions staff evaluate the applications of both freshman and transfer students in order to select qualified students. Undergraduate Admissions also reviews all applications for readmission and reinstatement. For more information about undergraduate admissions, see chapter 1.

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America Reads*America Counts

0144 Holzapfel Hall
301-314-READ
www.arac.umd.edu

America Reads*America Counts, part of the Office of Community Service Learning, provides federal work-study students the opportunity to serve as reading and math mentors in nearby Prince George's County elementary schools. Students tutor 6-10 hours per week and are matched with 3-5 children per semester. Mentors receive excellent training and salary. Opportunities exist for students to enhance their leadership skills and provide administrative support to the program as well. Contact America Reads*America Counts to learn whether you can be eligible for federal work-study or for more information about the program.
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Computing Services: Office of Information Technology

Phone: 301-405-7700
Fax: 301-405-0300
oit@umd.edu
www.oit.umd.edu

University of Maryland students are part of an academic community that enjoys access to
networked computer and telecommunications resources that are among the best in the nation.
The Office of Information Technology (OIT) provides technology infrastructures and focuses
attention on services that support university education and research missions as well as
underlying business processes.

Many faculty members have integrated technology into courses as part of the learning process,
both in and outside of the classroom. Computer accounts enable students to store class work on
a networked server, use on-line classroom support materials, send e-mail, and create Web
sites. Residence Halls provide a “port-per-pillow,” and workstation labs across the university
feature PC, Mac, and UNIX environments for those needing a computer, laser printing, or
course-related software. An Adaptive Technology Lab and equipment are available to users
requiring them.

Testudo (www.testudo.umd.edu) is a Web-based, one-stop-shop for on-line university
resources that students need the most. It allows you access to your individual registration and
course information. You can view the schedule of classes, find the sections with preferred
instructors and openings, and register on-line, all from the comfort of your dorm room or home.
You can check the status of your financial aid, see your grades, view your outstanding parking
tickets, order transcripts, apply for a new residence hall room assignment, and much more. It is
all password protected and secure to ensure your privacy. In addition, a student portal is
coming soon.

As services to the university, OIT offers answers to your IT questions and technical assistance
via the OIT Student Help Desk (www.helpdesk.umd.edu, 301-405-1400), leads the Academic
Computers for Terps (ACT) discount computer purchasing program (www.act.umd.edu),
provides the ELMS (Enhancing Learning for Maryland Students) environment powered by
Blackboard (www.elms.umd.edu), operates the University’s new Terrapin Technology Store in
the Stamp Student Union (www.oit.umd.edu/techstore, 301-314-7000), and manages the
University of Maryland’s Cellular Discount Program (http://cellular.umd.edu).
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Educational Talent Search College Gateway Programs

3103 Turner Hall
301-324-7763
Educational Talent Search: www.etsp.umd.edu

Educational Talent Search increases the college participation of low-income and first-generation college students.

For more information, see Office of Undergraduate Studies section in Chapter 6.
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Office of Extended Studies

0132 Main Administration Building
301-405-6551
Chuck Wilson, Director
www.oes.umd.edu

The Office of Extended Studies administers the University's Summer Term, Winter Term, and the Freshmen Connection Program.

Summer Term serves more than 12,000 students in over 1,700 undergraduate and graduate courses offered in six sessions during the University's twelve-week Summer Term. Additionally, special summer programs include the Young Scholars Program, enrolling academically qualified high school juniors and seniors, and Freshmen First, providing fall and spring newly admitted freshmen an opportunity to transition into college while earning academic credit. Noncredit workshops also are available in Summer Term.

Winter Term is a three-week session in January offering more than 200 undergraduate and graduate courses as well as noncredit workshops. Winter Term provides an opportunity for students to accelerate their progress toward graduation, fulfill prerequisites, and meet eligibility requirements for certain majors.

The Freshmen Connection Program is a fall semester academic program specifically designed for students who have accepted spring admission to the University of Maryland. Students enroll in this extension program to earn up to 16 credits toward their undergraduate degree.

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Student Financial Services Center

1135 Lee Building
301-314-9000
www.financialaid.umd.edu

The Office of Student Financial Aid (OSFA) administers a variety of financial assistance and student employee programs. Assistance is granted primarily on the basis of the applicant's financial need as determined by the Free Application for Federal Student Aid (FAFSA). The OSFA staff is available for individual counseling on matters pertaining to financing a college education. For additional information, see chapter 2, Fees, Expenses, and Financial Aid.

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Honor Societies

www.union.umd.edu/studentorg/

Students who excel in scholarship and leadership may be invited to join the appropriate honor society. Honor societies at Maryland include:

- Alpha Chi Sigma (Chemistry)
- *Alpha Epsilon (Agricultural Engineering)
- *Alpha Epsilon Delta (Pre-Med)
- Alpha Epsilon Rho (Broadcast Journalism)
- *Alpha Kappa Delta (Sociology)
- *Alpha Lambda Delta (Freshman Scholarship)
- Alpha Phi Sigma (Criminal Justice)
- Alpha Zeta (Agriculture)
- Beta Alpha Psi (Accounting)
- Beta Gamma Sigma (Business Management)
- Black Honors Caucus
- *Chi Epsilon (Civil Engineering)
- Delta Nu Alpha (Transportation)
- Delta Phi Alpha (German)
- Delta Sigma Pi (Business)
- Delta Sigma Pi (Business)
- Delta Tau Rho (Hebrew)
- *Eta Kappa Nu (Electrical Engineering)
- *Golden Key Honor Society (Leadership/Scholarship)
- *Kappa Delta Pi (Education)
- *Kappa Tau Alpha (Journalism)
- *Lambda Pi Eta (Speech Communication)
- *Mortar Board National Honor Society (Scholarship)
- *National Society of Collegiate Scholars
- *Omega Chi Epsilon (Chemistry Engineering)
- *Omega Rho (Business)
- *Omicron Delta Epsilon (Economics)
- *Omicron Delta Kappa (Scholarship/Leadership)
- *Order of Omega (Fraternity/Sorority Leadership)
- Phi Alpha Epsilon (Health/Human Resources)
- *Phi Alpha Theta (History)
- Phi Beta Kappa (Scholarship)
- Phi Chi Theta (Business and Economics)
- *Phi Eta Sigma (Freshman Scholarship)
- *Phi Kappa Phi (Senior/Graduate Scholarship)
- *Phi Sigma (Biology)
- *Phi Sigma Pi (Scholarship/Leadership)
- *Phi Sigma Iota (French/Italian)
- *Pi Sigma Alpha (Political Science)
- *Phi Sigma Theta
- *Primannum Honor Society
- *Psi Chi (Psychology)
- Sigma Alpha Omicron (Microbiology)
- Sigma Delta Chi (Journalism)
- *Sigma Delta Pi (Spanish)
- *Sigma Tau Delta (English)
- *Tau Beta Pi (Engineering)
- Tau Beta Sigma

*Member of Association of College Honor Societies
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Intercollegiate Athletics

Comcast Center
301-314-7075
www.umterps.com

The Department of Intercollegiate Athletics is responsible for directing intercollegiate athletic programs for both women and men, and for managing the campus' athletic complex.

Women's intercollegiate athletic teams include cross country, field hockey, soccer and volleyball in the fall; basketball, competitive cheer, swimming, indoor track/field and gymnastics during the winter; and lacrosse, softball, outdoor track/field and water polo in the spring. Tennis and golf competition is scheduled in both the fall and spring seasons.

There are men's teams in football, soccer and cross country in the fall; basketball, swimming, wrestling, and indoor track/field during the winter; and baseball, lacrosse and outdoor track/field in the spring. Tennis and golf competition is scheduled in both the fall and spring seasons.

Men's and women's intercollegiate athletic teams compete in the National Collegiate Athletic Association (NCAA) at the Division I level and in the Atlantic Coast Conference (ACC).

Eligibility Requirements

Student-athletes must meet all NCAA, ACC and University of Maryland requirements for eligibility. The chart below serves as a guideline to eligibility rules and does not provide complete detail. All NCAA requirements are available via www.NCAA.org .

NCAA Continuing Eligibility and Progress Towards Degree Guidelines

<table>
<thead>
<tr>
<th>Year of Initial Collegiate Enrollment</th>
<th>Semester of Full-Time Enrollment</th>
<th>NCAA Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2003 - present</td>
<td>Entering 1st semester (1st year)</td>
<td>Must be certified by the NCAA Eligibility Clearinghouse</td>
</tr>
<tr>
<td></td>
<td>Entering 2nd semester</td>
<td>* 6 degree applicable credits earned previous semester</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 1.29 UM GPA</td>
</tr>
<tr>
<td></td>
<td>Entering 3rd semester (2nd year)</td>
<td>* 18 hours earned during previous regular academic year and 24 for the year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 6 degree applicable credits earned in previous semester</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 1.8 NCAA GPA</td>
</tr>
<tr>
<td></td>
<td>Entering 4th semester</td>
<td>* 6 degree applicable credits previous semester</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 1.80 NCAA GPA</td>
</tr>
<tr>
<td></td>
<td>Entering 5th semester (3rd year)</td>
<td>* 40% (*48 degree applicable credits) of degree requirement completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 18 hours during previous regular academic year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 6 degree applicable credits earned previous semester</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* 1.90 NCAA GPA</td>
</tr>
</tbody>
</table>
1. Student-athletes are allowed 4 seasons of eligibility within 5 calendar years from the time they first enroll full-time in a collegiate institution. When they participate in any competition in their sport (including a scrimmage with outside competition), whether it is for one minute or an entire contest, they have used a season of competition and one of their four years of eligibility.

2. Student-athletes must be enrolled full-time, that is, carry a minimum of 12 credit hours each semester to be eligible to practice or compete with their team. If a student-athlete drops below 12 hours he/she will immediately be ineligible to practice or compete, and his/her athletics grant-in-aid will be revoked unless otherwise approved by the Department of Athletics. Graduating seniors who need less than 12 credit hours to complete degree requirements may receive an exception to enroll in less than 12 credit hours by completing a Less Than 12 form available in the ASCDU.

3. Student-athletes are required to meet multiple sets of academic standards in order to maintain eligibility for athletic competition. These standards are dictated by the NCAA and the Athletic Council. In addition, student-athletes may be required to maintain standards dictated by the college of their major for either admission into a degree program, or maintaining enrollment.

4. Transfer student-athletes must meet all NCAA, ACC and UMD requirements in order to be immediately eligible. Please note that in certain cases NCAA and ACC eligibility requirements are more stringent than UMD admissions requirements.

5. Ineligible student-athletes are not permitted to compete or travel.

6. First semester freshman who do not meet the cumulative GPA requirements, may seek an appeal under certain circumstances. Transfer student-athletes are required to attain the appropriate cumulative GPA based upon the number of full-time semesters they have been enrolled in any institution.

7. Dismissed and later reinstated student-athletes are ineligible for competition until they meet designated grade point averages.

The Department of Intercollegiate Athletics (ICA) also sponsors a number of awards for achievement in athletics and/or scholarship. For further information, contact the Academic Support and Career Development unit (ASCDU), 301-314-7043.
International Education Services

3116 Mitchell Building
301-314-7740
Director: Valerie Woolston
E-mail: iesadv@deans.umd.edu
www.international.umd.edu/IES

International students and faculty receive a wide variety of services designed to help them benefit from their experience in the United States. International Education Services (IES) works closely with the Office of Undergraduate Admissions, evaluating academic records from overseas and processing applications for English proficiency, visa, and financial requirements. IES sponsors orientation programs, immigration and employment seminars, and the Global Communities, living-learning program in Dorchester Hall. IES advisors counsel international students concerning immigration and personal issues.

F-1 and J-1 status students. Students with F-1 or J-1 status are responsible for following the regulations of the U.S. Immigration and Naturalization Service pertaining to their visa status. The regulations affect extension of stay, transfers, off-campus employment authorization, practical training, and course loads. The Office of International Education Services is the only office on campus authorized to sign documents which must be forwarded to the Immigration and Naturalization Service.

Maintaining Status

- **Full-time registration**: In order to maintain full-time student status for immigration purposes, F-1 and J-1 undergraduate students are expected to register for and complete a minimum credit load of 12 hours per semester. Pre-approval from IES is required if you are going to complete the semester with fewer than 12 credits.

- **Documents**: International students must have a valid passport at all times unless exempt from passport requirements. If your I-20 or DS-2109 will soon expire you should apply for an extension at least 30 days prior to the program completion date on the document. To travel outside the U.S. and re-enter as an F-1 or J-1, an advisor in IES must sign your I-20 or DS-2109 before you leave.

- **Health Insurance**: F-1 and J-1 students are required to carry adequate health insurance while attending the university. There are federal health insurance requirements for J-1 students and their dependents. Students must either purchase the health insurance plan available in the Office of International Education Services or show proof of coverage that meets USIA guidelines. Visit the Health Center for assistance with insurance.
Letters and Sciences

1117 Hornbake Library
Assistant Dean/Director: Deborah Reid Bryant, Ph. D.
General Advising: 301-314-8418/9
Pre-Law Advising: www.prelaw.umd.edu
Credit-by-Exam: 301-314-942
www.ltsc.umd.edu

Letters and Sciences is the academic home for students exploring a variety of fields before selecting a major, for post-baccalaureate students taking additional course work, and for non-degree seeking students taking undergraduate courses. Letters and Sciences may also serve as the academic home for students completing requirements for entry into a Limited Enrollment Program.

For more information, see Office of Undergraduate Studies section in Chapter 6.

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Maryland English Institute (MEI)

1121 Holzapfel Hall
301-405-8634
Director: Marsha Sprague
www.mei.umd.edu

The Maryland English Institute (MEI) is committed to providing high quality instruction, to meeting the needs of non-native speakers and their sponsors, and to strengthening the ability of non-native English speakers to participate in rigorous academic and professional environments. MEI serves the University as a resource center in English language teaching and testing matters. It evaluates and instructs prospective and provisionally admitted international students and teaching assistants. Two regular instructional programs are offered: a semi-intensive program for provisionally admitted students and a full-time intensive program.

Semi-Intensive (UMEI 005): This program is open only to students admitted to the University of Maryland who have submitted TOEFL scores between 475-574 (on the paper-based test), 153-232 (on the computer-based test) or 60-83 on the iBT. Students with these scores are provisionally admitted, and must satisfactorily complete UMEI 005 their first semester in order to become fully admitted, full-time students at the University. UMEI 005 classes meet five days a week, two hours a day. The program is designed especially to perfect the language skills necessary for academic work at the University of Maryland. Enrollment is by permission of the director, and no credit is given toward any University degree.

Intensive: This full-time English language program is open to non-native speakers who wish to improve their English for academic, professional or general purposes. There are three intensive English sessions per year: One for fall semester, one for spring, and a seven-week session in the summer. Each consists of approximately 23 hours of instruction weekly. The program offers four levels of instruction, advanced beginning through advanced. Instructors encourage computer-assisted learning at all levels.

Satisfactory completion of the program does not guarantee acceptance at the University. Enrollment is by permission of the director, and no credit is given toward any University degree.

http://www.umd.edu/catalog/index.cfm/show/content.section/c/47/ss/622/s/634
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Office of Multi-Ethnic Student Education (OMSE)

1101 Hornbake Library
301-405-5615 or 405-5616
www.umd.edu/OMSE

Academic Support and Leadership Focus. The Office of Multi-Ethnic Student Education (OMSE) provides academic support programs and services to enhance the recruitment, retention and graduation of undergraduate multi-ethnic students at the University of Maryland (UM), College Park. OMSE's academic support activities include a tutorial service, peer mentoring programs, academic classes that develop college success skills and peer helping strategies, EDCP-108N and EDCP-312; and Academic and Leadership Excellence programs. As an academic unit, OMSE strives to identify and meet changing needs that affect the success of our undergraduate multi-ethnic students. OMSE collaborates with other campus offices and college programs to achieve this goal, as well as to promote a positive community of learners who are sensitive to issues of diversity, and to enhance the academic experience of our diverse undergraduate student population at UM.

Study Lounge and Computer Workstation. The OMSE office suite contains a study lounge that serves as a tutorial center and an open workstation laboratory. The study lounge provides multi-ethnic students with an opportunity to study, get assistance from a tutor, and work on state-of-the-art computers in a relaxed atmosphere.

Liaison to Student Organizations. OMSE staff members actively support a number of multi-ethnic pre-professional undergraduate student societies in law, business, science, health, and education disciplines. OMSE also supports and works closely with the campus Asian-American Student Union, Black Student Union, Latino Student Union, and the American Indian Student Union.
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Oak Ridge Associated Universities

www.orau.org

Since 1951, students and faculty of University of Maryland have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 91 colleges and universities and a contractor for the US Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its member informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty, enjoy access to a multitude of opportunities for study and research.

ORAU’s Office of Partnership Development seeks opportunities for partnerships and alliances among ORUA’s members, private industry, and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs as well as services to chief research officers.

For more information about ORAU and its programs, contact: Jacques S. Gansler, Vice President for Research at the University of Maryland, or visit the ORAU home page at www.orau.org.
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Orientation

1102 Cole Field House
301-314-8217
Director: Gerry Strumpf
www.orientation.umd.edu

The goal of Orientation is to introduce new students to the University of Maryland community. The Orientation Office offers a wide range of transitional programming and services for students and their families as they prepare to attend the University of Maryland.

For more information, see Office of Undergraduate Studies section in Chapter 6.
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Pre-College Programs

1101 West Education Annex
Executive Director: Georgette Hardy DeJesus
www.precollege.umd.edu
Upward Bound Programs: 301-405-6776
Upward Bound-Math and Science Program (UB-MS): 301-405-1773

The University of Maryland Pre-College Programs in Office Of Undergraduate Studies is comprised of the federally and state funded programs. These programs generate the skills and motivation necessary for success in post-secondary education. Pre-College Programs is part of the Federal TRIO Programs, which provides educational opportunity outreach programs designed to motivate and provide support to low-income and/or first-generation college bound high school students.

For more information, see Office of Undergraduate Studies section in Chapter 6.

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Office of Professional Studies

2103 Reckord Armory
301-405-6534
Associate Provost & Dean: Judith K. Broida
www.professionalstudies.umd.edu
www.onlinestudies.umd.edu
www.spoc.umd.edu

The Office of Professional Studies links the people who teach with the people who wish to learn, tapping into the University of Maryland's vast community of world-class faculty and resources. We work with our distinguished Graduate School, other campus units, and external partners to offer new and responsive graduate programs based on emerging trends and new market demands.

Our interdisciplinary Master of Professional Studies (MPS) and Graduate Certificate in Professional Studies (GCPS) programs are designed by a team of content experts who develop the right mix of core courses and electives taken from across multiple subject areas.

In addition to the MPS and GCPS, we offer the following programs and services:

**Online Studies**: OPS manages fully online graduate programs on behalf of the university.

**SPOC**: OPS provides students with personalized customer service through our Single Point of Contact (SPOC) office. Among SPOC's many services are assistance with registration and admissions, bookstore, library, financial aid, and general inquiries. Most professional graduate programs utilize SPOC to provide campus services to their students.

**CEU's**: OPS administers Continuing Education Units (CEUs) from the University of Maryland, an important credential in today's competitive workplace.

**Consulting and other services**: Utilizing the knowledge and skills of the campus faculty and staff, OPS provides consulting to business, government, and not-for-profit organizations to assist them in developing customized workplace solutions.

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Office of the Registrar

First floor Mitchell Building  
301-314-8240  
Registrar: David Robb  
www.testudo.umd.edu

The Office of the Registrar provides services to students and academic departments related to the processes of registration, scheduling, withdrawal, and graduation. The office also maintains students' academic records and issues transcripts. Staff members are available to students for consultation. For detailed information about registration procedures, student records, and academic regulations, see chapter 4.

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Maryland Center for Undergraduate Research (MCUR)

2nd Floor McKeldin Library
301-314-6786
www.ugresearch.umd.edu

The Maryland Center for Undergraduate Research (MCUR) is an initiative from the Office of the Dean of Undergraduate Studies. Created as a resource for faculty and students, the Center serves as a clearinghouse for both on-campus and off-campus research opportunities for undergraduate students. Additionally, faculty members can share different models for incorporating undergraduate students into research programs, and ways of infusing undergraduate research into the curriculum.

For more information, see Office of Undergraduate Studies section in Chapter 6.

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Center for Teaching Excellence

0405 Marie Mount Hall
301-405-9356
Director: Spencer Benson
www.cte.umd.edu

The Center for Teaching Excellence supports departmental, individual and campus-wide efforts to enhance teaching and learning at the University of Maryland. The Center offers assistance to departments, faculty, graduate and undergraduate teaching assistants. The Center provides workshops, teaching assistant development, evaluation and support strategies for improving teaching and learning, individual consultations for faculty and graduate students, research on current teaching practices, and implementation of innovative teaching and learning strategies.

The Center also administers the Undergraduate Teaching Assistants program, a University-wide teaching and learning program for graduate teaching assistants, the Lilly Teaching Fellows program, the Instructional Improvement Grants program, and various Scholarship of Teaching and Learning programs.

For more information, see Office of Undergraduate Studies section in Chapter 6.

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2110 Marie Mount
301-405-4745
www.umd.edu/AAP

The Intensive Educational Development Program (IED) in the Academic Achievement Programs (AAP) provides tutoring services for eligible University of Maryland students. The schedule for tutoring, study skills, math support, and English support classes is available at 2110 Marie Mount. Academic support classes are offered for many lower-level CORE classes, including math and English classes, as well as for selected entry-level classes for numerous majors (for example Business or Biological Sciences). For a schedule of classes as well as eligibility status for AAP’s services, please contact the Tutoring Coordinator at 301-405-4745 or yukako@deans.umd.edu. Also, please check AAP’s webpage at www.umd.edu/aap for schedules, job opportunities as tutors, and further information about the program.

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Alumni Association

Samuel Riggs IV Alumni Center
301-405-4678
www.alumni.umd.edu

The University of Maryland Alumni Association is a non-profit, membership organization for alumni of the University of Maryland, College Park. By taking traditional and innovative approaches to alumni programming, the alumni association fills many purposes, including the needs of students.

In conjunction with Senior Council and the Office of Student Affairs, the association supports professional development programs to prepare students for life in the "real world." Prospective and current students may apply for scholarships through the Maryland Alumni Association Scholarship Program. New graduates receive a one-year complimentary membership in the alumni association that includes its full range of benefits. The alumni association also offers graduates early access to the Terp Alumni Network, a free online alumni community featuring class e-notes and a searchable alumni directory. Upon graduation, the alumni association invites new graduates to join its Young Alumni Club, which provides activities for alumni who have graduated in the last 10 years.

In addition to student programming, the alumni association honors alumni who have distinguished themselves professionally and personally through the University of Maryland Alumni Association Hall of Fame and Annual Awards Gala. It provides special programs and services, such as consumer discounts, that benefit all alumni. It promotes continuing education through its cultural seminars and international travel program. Most of all the alumni association seeks to build the Terrapin Spirit by supporting more than 30 alumni clubs and academic chapters throughout the country and the world.

The alumni association has 30 staff members, is governed by a board of alumni volunteers, and is supported by countless other alumni volunteers around the country.

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Book Center

Stamp Student Union, lower level
301-314-BOOK
www.umd.edu

The Book Center provides a convenient (on-campus) selection of textbooks and general-interest books, including literature, technical books, and best sellers. It also offers a large selection of school and office supplies, computers and software to meet every educational need. The Book Center also carries a wide selection of imprinted clothes and related items.

The Book Center is open Monday, Tuesday, Wednesday, Thursday - 8:30 a.m. to 8:00 p.m., Friday, 8:30 a.m. to 6:00 p.m., Saturday, 10 a.m. to 5 p.m., and Sunday, 11 a.m. to 5 p.m. Additional hours for special events.

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University Career Center

3100 Hornbake Library, South Wing
301-314-7225
CareerHelp@ds9.umd.edu
www.CareerCenter.umd.edu
(refer to the University Career Center website for current Resource Room and same day assistance hours)

Mission

The University Career Center supports the University's mission and its academic programs by providing a variety of programs and services to meet the diverse career development and employment needs of degree seeking students and alumni. The center teaches, advises and counsels students to make decisions about career interests, employment and further or continued education; it collaborates with academic departments, employers and alumni in the delivery of programs and services. All students should consider internship and/or coop opportunities as an integral part of their academic endeavors. Students should incorporate these opportunities into the pursuit of their degree.

President's Promise

The President's Promise initiative encourages undergraduate students to have an integrated learning experience that goes far beyond the classroom. Students may find opportunities in programs such as living/learning programs, research experiences, public and private sector internships, learning communities, international experiences, service-learning experiences, and opportunities for leadership. President's Promise staff will help students navigate through all options to select the best opportunities to complement academic pursuits. In addition, dedicated faculty and staff are also available to help students chart a course to enhance their academic experience. To get started visit www.presidentspromise.umd.edu.

Resources

Career and Employment Resource Room: The Career & Employment Resource Room is a central point to learn about our many services and resources on career planning, internships, applying to graduate/professional school, and the job search. The Resource Room contains an extensive collection of books and videos; computer-assisted career exploration; computers with internet connections; and employer information. Peer Career Educators are also available to answer questions and assist in the use of available resources.

The Resource Room is open to all students at the University of Maryland and University of Maryland alumni.

Career Assistance: Same day career assistance appointments (30 minutes) and individual career counseling appointments (one hour) may be scheduled with our staff. This time is used to assist students in identifying majors suited to their interests, helping them to understand the world of work, and preparing them for the job search by focusing on their skills and interests. We also provide assistance in the graduate school application process, and work with alumni beginning their career changes.

University Career Center Web site: The web site provides a calendar of events, job search information, career information and general announcements. Our homepage features continuously updated, timely career information for UM students and alumni.
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**Careers4Terps (The Employment Registration Program):** For fast and comprehensive access to employment opportunities, the Career Center recommends that every student register for Careers4Terps. Careers4Terps provides students with free access to Job Listings, On-Campus Interviewing, and Resume Referral as well as updated information on career and job fairs. Careers4Terps students receive special email bulletins on upcoming employment events related to their major.

**On-Campus Interviewing:** On-Campus Interviewing offers students the opportunity to interview on campus with a variety of employers for full-time, internship, or part-time positions. To participate in On-Campus Interviewing students must register on Careers4Terps. On-Campus Interviewing is also available to recent alumni.

**Job Listing:** Current job listings—including part-time, internship, graduate assistantship, and full-time positions—are accessible 24 hours via Careers4Terps. Additional jobs are posted on the bulletin boards outside the Center. Students seeking short term part-time jobs should consider our Quick Bucks email service.

**Credentials Services:** Every University of Maryland College Park undergraduate, graduate student and alumni of the campus can establish a permanent professional file which holds letters of recommendation and background information to support applications for employment and graduate/professional school.

**Resume Referral:** This resume database allows students and alumni to present their qualifications to employers who are not interviewing on campus. By registering for Careers4Terps the student joins a pool of candidates accessible to employers requesting applicants with specific skills or backgrounds to fill their current job openings. Employers review resumes and then contact qualified candidates to arrange office interviews or request additional information.

**Student Employment Training Program:** This hands-on, interactive training is customized to meet the needs of Maryland students with a companion supervisory training program. The student training focuses on building skills students can transfer to work after graduation. The supervisory training focuses on effective student employee management, sound job design, well-planned training, and consistent supervision.

**Virtual Mock Interviews:** These are self-produced practice interviews. Through use of an interactive kiosk, sessions are digitally recorded and streamed to an online account for your review.

**Terp Externship:** An externship is a short job shadowing experience that provides you with the opportunity to observe and network with professionals, investigate a career field, clarify career goals and interests, and function within a work environment.

**Federal Work Study Students Note:** Students eligible for Federal Work Study/Community Service positions should contact the Office of Student Financial Aid at: www.umd.edu/FIN/ or 301-314-9000.

**Engineering Majors Note:** Additional support for part-time, internship and cooperative education positions is available through the Engineering Co-op and Career Services office at 301-405-3863.

**Business Majors Note:** Additional support for part-time, internship, cooperative education, and full-time positions is available through the Undergraduate Business Career Center office at 301-405-7103.

**Academic Courses:** The Career Center offers a variety of career development courses:

**EDCP1081 - Academic Transition into Internships:** A one-credit course designed to provide students with the full experience of searching for, obtaining and successfully completing an internship. Themes may include understanding the relationship of internship experiences to majors and/or career paths, setting learning objectives, making the most of an internship experience, and evaluating offers.

**EDCP 108J - Job Search Strategies:** Designed for students who are seeking to learn more about strategies for landing full time employment and succeeding
at work. Themes may include resume writing and interview preparation, determining fit and appropriateness of positions, setting realistic expectations for salaries and duties, appropriate work etiquette, networking, selecting references, on-the-job success, and managing work cultures and dynamics.

**UNIV099  Internship Experience:** Designed to complement students supervised work experiences. Topics may include exploring career options, developing professional work skills, and examining the relationship between internship and academic coursework. Good academic standing, submission of transcript, and internship description and approval of instructor required.

**Career Development:** Special events bring students and employer representatives together for information exchange and employment contact. Stay tuned on the following special events through the Career Center's website:

- Career Center Events
- Internship and Part-Time Job Fair
- Law Schools Day
- Graduate Schools Day
- National Student Employment Week
- Spring Career Fair
- Fall Career Fair
- Maryland Metropolitan Area Teachers Interviewing Consortium
- Diversity Symposium
Counseling Center

Shoemaker Building
301-314-7651
301-314-9206 (fax)
www.counseling.umd.edu

Seeking help is a sign of strength! Many students encounter a variety of personal, social, career, and academic issues that call for assistance beyond advice provided by friends and family. Fortunately, the Counseling Center provides free and confidential counseling services to all University of Maryland students. To schedule an appointment call 301-314-7651 or stop by Shoemaker Building. Walk-in counseling is available to students of color and GLBT students every day from 3 p.m. to 4 p.m.

Counseling Center Services

Personal/Social Counseling. You don't have to deal with your problems alone. In a warm and supportive environment, you can meet with a professional counselor to discuss any concern you may have related to your personal and social well-being. Among the topics many students discuss in counseling are self-esteem, stress, relationship issues, sex, family problems, and loneliness. You may see a counselor for individual counseling or join one of the many counselor-led support groups. Call 301-314-7651.

Career Counseling. A normal part of your development in college is identifying who you are in relation to a future career. You can get help with this process in individual career counseling at the Counseling Center. Your exploration may include taking career interest tests and interpreting the results with a professional counselor or taking advantage of a computerized career information system. Whether you are choosing a major, establishing career goals, or considering job opportunities, it is important to understand how your personality, values, and interests relate to your future professional life. Career counseling at the Counseling Center is a good place to begin. Call 301-314-7651.

Academic Skills Counseling. Many students would like to improve their academic skills. If you're tired of struggling because of your own weak areas, schedule an appointment to see the Counseling Center's education specialists. They can help you enhance such skills as reading, writing, note-taking, learning science and math material, and learning statistics. Workshops cover a range of topics, including study skills, exam skills, time management, English conversation, end-of-semester survival skills, and completing your thesis or dissertation. Call 301-314-7693.

Workshops and Group Counseling. You can gain strength to deal with your concerns by getting together with other people who share similar problems, interests, and goals. Each semester, the Counseling Center offers weekly support groups addressing a variety of topics, such as career exploration, dissertation support, procrastination prevention, and stress management. Recent group offerings have included, "Circle of Sisters," a support group for black women; "My Body-My Self: A Woman's Group," which addresses problems of body image and eating; and "Living with Illness," a group that assists people living with chronic illness. Call 301-314-7651.

Support for Students with Disabilities. The Counseling Center provides a range of services for students with disabilities, including help in locating interpreters for deaf or hard-of-hearing students; readers for visually-impaired students, blind students, and students with learning disabilities; and assistance with access to various buildings and facilities on campus. If you are a new or returning student, contact the Disability Support Services Office in the Counseling Center as soon as possible. Call 301-314-7682, voice and TTY.

Returning Students Program. If you are over 25 and returning to school after a break in
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Your formal education, you probably have different needs than the traditional college student. The Returning Students Program is designed to help you with the transition to academic life. Workshops, counseling, and publications are available at the Counseling Center to make your adjustment to the university successful. Call 301-314-7693.

Testing Services. The Counseling Center administers tests for counseling purposes, such as career interest inventories, and also administers national standardized tests, such as the GRE, LSAT, MCAT, GMAT, and Miller Analogies. Call 301-314-7688.

Research Services. Group and individual consultation are available if you need assistance with research design and statistics and writing project proposals, theses, and dissertations. Call 301-314-7687.

Support for Parents of College Students. The Parent Warmline is a confidential telephone and email service for any parent concerned about his or her child’s adjustment at college, including concerns impacting academic, social, and emotional realms, and overall mental health. Parent Warmline staff can be contacted at 301-314-7651 or warmline@wam.umd.edu.

Parent and Child/Adolescent Counseling and Evaluation. University-connected families with children (ages 4 to 18) can receive a range of services, including individual and group therapies, school consultation, and parent consultation. Intellectual and emotional/behavioral evaluation is also available for youth with school and learning concerns. Call 301-314-7673.

Counseling Center Hours

Counseling appointments (all students):
  Monday-Thursday  8:30 a.m. to 9:00 p.m.
  Friday           8:30 a.m. to 4:30 p.m.

Students of Color and Rainbow walk-in counseling (no appointment needed):
  Monday-Friday    3 p.m. to 4 p.m.

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### Dining Services

1150 South Campus Dining Hall
Dining Plans: 301-314-8069
Terrapin Express: 301-314-8068
Student Employment: 301-314-5058
umfood@dining.umd.edu
www.dining.umd.edu

The University of Maryland offers one of the top ten self-operated and self-supported dining services programs in the country. Our goal is to provide popular and nutritious food in a welcoming setting every day. We offer a variety of dining plan alternatives to maximize convenience and flexibility and meet your dining requirements. Dining locations are situated across campus - close to academic buildings and residence halls, and our two main dining rooms are open until midnight on most weekday nights.

Dining options include a large selection of traditional entrees as well as popular food choices. Dining rooms feature a total of 21 culinary stations including Sprouts, an all vegan station; The Jalapeno Grill, featuring made-to-order burritos; Cluckers, serving classic comfort food; The Global Gourmet (only at The Diner) offering internationally-themed entrées nightly; and Don Lee's Asian Cuisine, South Campus' rice and noodle bowl concept.

In addition to the dining rooms, cafes, quick food locations and convenience shops are available across campus to meet the needs of our students and the campus community. For a complete list of our dining locations, hours and general information, please visit [www.dining.umd.edu](http://www.dining.umd.edu) or call us at 301-314-8069. We are where you are - and we welcome students, faculty, staff and visitors into all of our locations across campus.

**Residential Dining Plans.** Declining balance dining plans allow students the freedom to dine during our hours of operation with the responsibility to use their points by set published dates. This plan, designed by University of Maryland students, offers variety, flexibility and convenience. Extended hours allow carryout and late night service. Dining plans are accessed using students' University of Maryland issued Student ID card which must be presented by the student at the time of purchase. The Dining Plan Agreement is included in the Housing Agreement and is required if you reside in traditional campus residential housing. To add additional dollars and points of service to a residential dining plan, consider a Stamp Add-On Plan. Several dining plan alternatives are available; visit our web site, [www.dining.umd.edu](http://www.dining.umd.edu) for details.

**The Apartment Dining Plan.** For students living off-campus who would like to participate in a dining plan, we offer the Apartment Plan, which parallels the residential plans. The Apartment Plan offers students the ability to purchase food on campus without carrying cash or a credit card; the security that if the ID card is lost, the account can be frozen and then attached to a replacement ID; and the convenience of paying through the Bursar's Office during the regular billing cycle or by using financial aid or scholarship money. Apartment Plan points can roll over from semester to semester. For details see our web site.

We are confident that you will be impressed by the quality and exceptional selections available throughout the dining locations across campus. See you at lunch!

**Terrapin Express**
Terrapin Express is a pre-paid debit account, not a substitute for a dining plan. It is a wonderful option to supplement a dining plan and a great alternative for non-resident and apartment students. Terrapin Express accounts are available to all students, faculty and staff through the Terrapin Express Office at 1109 South Campus Dining Hall and at McKeldin Library or online through Testudo web services. Check our web site for a complete listing of...
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participating dining and non-dining locations.
Office of Fraternity and Sorority Life

1110 Stamp Student Union
301-314-7172
www.greek.umd.edu
Office Hours: Monday - Friday. 8:30 a.m. - 4:30 p.m.

Social and community service-based fraternities and sororities, and their leadership, are advised and supported by the staff in the Office of Fraternity and Sorority Life. The office also advises the four student governing councils: The Interfraternity Council (IFC), the Panhellenic Association (PHA), the Pan-Hellenic Council (PHC) and the United Greek Council (UGC). The office also manages university-owned fraternity and sorority houses and coordinates off-campus houses.
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University Health Center (UHC)

Campus Drive, Building 140
301-314-8180
310-314-7845 (fax)
www.health.umd.edu

The University Health Center, located on Campus Drive across from the Stamp Student Union, is a nationally accredited health care facility. Every registered student living on or off campus is eligible to use UHC services.

The UHC is open Monday through Friday, 8 a.m. to 7 p.m., Saturday, 11 a.m. to 3 p.m. and closed on Sunday. Medical services are limited after 5 p.m. and on Saturdays. Hours vary during semester breaks and holidays. Appointments are required. A limited number of same-day appointments are available. Urgent Care services are available without an appointment. The After Hours NurseLine (301.314.9386), a free medical advice and information service, is available to registered students when the UHC is closed. In an emergency, students should call 911. Students who are seriously ill or injured will be transported by ambulance to the emergency department of a local hospital.

There is a $10 fee for visits with most of our providers. There is a "Missed Appointment/Late Cancellation" fee. To avoid the charge, appointments must be cancelled or rescheduled at least 24 hours in advance. Some departments schedule their own appointments. A telephone list is provided below. Additional fees are charged for dental health, laboratory, radiology, pharmacy, immunizations, allergy injections, casts, physical therapy, mental health counseling, medications and supplies dispensed through the pharmacy and medical units, massage and acupuncture. Charges are posted to the student’s Bursar Account or can be paid at the time of visit in the UHC. Charges paid for at the UHC will not appear on the Bursar Account.

The following services are available at the UHC: Primary Care, Urgent Care, men's and women’s reproductive health care, HIV testing, sports medicine, nutrition, mental health, eating disorders, and substance abuse, travel clinic, occupational health, health promotion, Victim Advocate, and Faculty Staff Assistance Program. The Center for Health and Wellbeing (CHWB), a satellite of the UHC located in the Eppley Recreation Center, is open 12 p.m. to 8 p.m. Monday through Thursday and 12 p.m. to 5 p.m., Friday. CHWB provides health promotion programs and services; it does not provide medical services.

All medical records are strictly confidential and may only be released by the patient's written consent or through a court ordered subpoena. The UHC is compliant with the Federal Health Insurance Portability and Accountability Act.

United HealthCare provides a group health insurance policy to University of Maryland, College Park students. Students are eligible to enroll at the beginning of the Fall and Spring semesters and Summer Session 1. The UHC is not a participating provider with any other health insurance company. At the patient's request, via a signed Authorization Form, a coded bill will be provided. The patient may submit the coded bill to the insurance company of choice for reimbursable services. Your insurance company may or may not reimburse you for services received at the UHC.

The University of Maryland requires ALL students (including: credit/non-credit, degree/non-degree seeking, full/part/half-time, undergraduate, graduate, transfer, International, Golden ID or other student status) to provide proof of immunization dates for: Measles, Mumps and Rubella (M.M.R., 2 doses) Immunizations prior to the first day of classes. All International students must document: Measles, Mumps and Rubella (M.M.R., 2 doses) Immunizations and Tuberculosis (TB) test completed within the past 6 months. Maryland State Law requires Students living in campus owned housing must receive the meningitis vaccine or sign a waiver stating they have chosen not to receive the vaccine. The Immunization Record Form and Meningitis Waiver is available on-line at www.health.umd.edu/forms/Immuform07.pdf For more information, visit the website, email health@umd.edu or call 301.314.8180.

University Health Center Phone Numbers

301-314-8184

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<td>301-314-8165</td>
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<td>Community Service-Learning Office</td>
<td>Center for Health &amp; Well Being</td>
<td>301-314-1493</td>
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<td>Community Service-Learning Office</td>
<td>Dental Health</td>
<td>301-314-9500</td>
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<td>Campus Programs</td>
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<td>301-314-8128</td>
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<td>Multicultural Involvement and Community Advocacy</td>
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<td>Multicultural Involvement and Community Advocacy</td>
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<td>301-314-8186</td>
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<td>Multicultural Involvement and Community Advocacy</td>
<td>Physical Therapy</td>
<td>301-405-2557</td>
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<td>Multicultural Involvement and Community Advocacy</td>
<td>Substance Abuse Program</td>
<td>301-314-8106</td>
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<td>Multicultural Involvement and Community Advocacy</td>
<td>Victim Advocate, Office of</td>
<td>301-324-2222</td>
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<td>Multicultural Involvement and Community Advocacy</td>
<td>Women's Health</td>
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Housing: Resident Life

Annapolis Hall, main level
301-314-2100
reslife@umd.edu
www.resnet.umd.edu

The Department of Resident Life is responsible for management of the residence halls as well as the cultural, educational, recreational and social programs and activities therein.

While living in a Maryland residence hall is not required, nine of every ten students in Maryland's freshman class make the choice to live on campus. More than 90 professional and graduate staff and over 300 undergraduate student employees meet the needs of resident students.

There are rooms for approximately 8,200 undergraduate students in 36 residence halls. Three different styles of living are available to campus residents: traditional, suites and apartments. Within traditional housing, where most first- and second-year residents live, single, double, triple and quadruple room occupancy exists. Our nationally acclaimed living-learning programs include: Beyond the Classroom, CIVICUS, College Park Scholars, Hinman CEOs, Gemstone, Global Communities, Jimenez-Porter Writers' House, Language House, Honors Humanities and University Honors. All of these programs add to the diversity of on-campus housing options. All rooms have a cable and data for each student. One telephone jack is provided in each room.

First time freshmen are guaranteed on-campus housing provided they return their Maryland Planner including the Enrollment Confirmation and Housing and Dining Services Agreement along with the $200 enrollment deposit, by May 1. Transfer students who want to live on campus should complete the Maryland Planner as well and will be allotted housing on a space available basis.

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Office of Student Conduct

2118 Mitchell Building
301-314-8204
www.studentconduct.umd.edu

It is the mission of the Office of Student Conduct to resolve allegations of misconduct under the Code of Student Conduct and Code of Academic Integrity in a manner consistent with the core values of fairness, honesty and integrity while promoting the University's educational mission. Essential to this mission is to enhance the development of character, civility, citizenship, individual/community responsibility, and ethics. University students play a significant role in considering the behavior of their peers and are asked to assume positions of responsibility as members of the university's student judiciary. The following tenets guide this mission:

- To regard each student as an individual, deserving individual attention, consideration, and respect.
- To consider the facts fully and carefully before resolving any case.
- To speak candidly and honestly with each student.
- To hold each student to a high standard of behavior, both to protect the campus community, and to promote student ethical development.
- To recognize the reality of human fallibility, as well as the stresses associated with collegiate life, and to demonstrate compassion, understanding, and a sense of humor.
- To contribute to the educational mission of the University by designing policies, conducting programs, and offering instruction that contribute to the intellectual and ethical development of the entire student body.

General Statement of Student Responsibility. Students are expected to conduct themselves at all times in a manner consistent with the University responsibility of ensuring to all members of the campus community the opportunity to pursue their educational objectives, and of protecting the safety, welfare, rights, and property of all members of the University. Specific expectations for student conduct are outlined in the Code of Student Conduct, Appendix C, and the Code of Academic Integrity, Appendix O in Chapter 10.

Disciplinary Procedures. Students accused of violating University regulations are accorded fundamental due process in disciplinary proceedings. Formal rules of evidence, however, shall not be applicable, nor shall deviations from prescribed procedures necessarily invalidate a decision or proceeding unless significant prejudice to one of the parties may result. University procedures are outlined in the Code of Student Conduct and Code of Academic Integrity supplemented by materials provided by the Office of Student Conduct to assist students who are facing accusations of misconduct.
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Nyumburu Cultural Center

Campus Drive
301-314-7758
301-314-0383 (fax)
www.nyumburu.umd.edu

The Nyumburu Cultural Center has served as a major resource of cultural, historical, and social programming at the University of Maryland, College Park for more than thirty-five years. The Center works closely with student, faculty, and community organizations. The Nyumburu Cultural Center offers a variety of socio-cultural, musical, educational and artistic programs to the campus community. The nature of the diverse programming and activities is based on the African American, African, and Caribbean Diaspora experience(s). Nyumburu is home of the Maryland Gospel Choir, Shades of Harlem (performing arts ensemble), The Black Explosion Newspaper, Male Spokesmodel Competition, Miss Unity Scholarship Pageant, Juke Joint, Gospel Happy Hour, Leadership Series, Nyumburu Jazz Club, Kwanzaa Celebration, Cultural Dinner during Black History Month, Literature Conference, Homecoming Alumni Tailgate, Annual Talent Showcase, Annual Student Awards Banquet, Black Male Initiative (BMI) Program, and Sisterhood of Unity and Love (SOL).

Nyumburu's staff are advisors to many campus student organizations: Black Student Union, African Student Association (ASA), The Maryland Gospel Choir, The Black Explosion Newspaper, Sigma Gamma Rho sorority Inc., Delta Sigma Theta Inc., Alpha Nu Omega Sorority Inc., and Dimensions Modeling Group to name a few.

Nyumburu presents Blues, Jazz, and Gospel music concerts as well as academic courses in Creative Writing (ENGL278C), Blues (AASP298V) and Jazz (AASP298U) for three credits each. Maryland Gospel Choir students earn 1-credit (MUSC329E), and students who take EDCP108N, College and Career Advancement earn 1-credit.

During the summer, Nyumburu sponsors a Summer Camp Program for students from the age of five to sixteen. Through this dynamic eight week program, opportunities for youth to explore academic, artistic, and athletic interests in a relaxed and creative environment are provided. Camp Shule was established to provide the children of Maryland faculty/staff and local youth with a diverse educational experience.

The Multipurpose Room, Conference Rooms, Computer Labs, and the Nyumburu Amphitheatre of the Nyumburu Cultural Center are open to the students, faculty and staff of the University of Maryland. Room reservations are also available at a nominal cost for departmental and off-campus events and programs. Come in and interact with us, meet other students and make your ideas and wishes known. Our staff goal is to make Nyumburu a cultural center that is, "Your Home Away from Home."

http://www.umd.edu/catalog/index.cfm/show/content.section/c/47/ss/648/s/658
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1115 Eppley Recreation Center
301-405-PLAY (Information)
301-314-5454 (Rec-Check)
www.crs.umd.edu

Campus Recreation Services (CRS) offers a wide variety of recreation programs including aquatics, fitness programs, informal recreation, intramural sports, non-credit instruction, outdoor recreation, and sport clubs.

CRS has some of the most advanced recreation, sports, and fitness facilities in the nation. The CRS facilities include the Eppley Recreation Center (ERC), Ritchie Coliseum, Reckord Armory, Cole Fieldhouse and the weight and fitness areas in the Health and Human Performance (HHP) building.

The Eppley Recreation Center has two indoor and two outdoor pools for lap swimming and diving. The CRS aquatic program also offers swimming lessons, and lifeguard training.

CRS offers a wide variety of fitness programs throughout the week at ERC and Ritchie Coliseum. These include low-impact, step, and water aerobics, cardio-boxing, and sport conditioning. CRS Informal Recreation programs allow students to enjoy their favorite activity at their leisure, whether it is using cardiovascular equipment, lifting weights, jogging, or playing racquetball, volleyball, basketball or wallyball. CRS has weight rooms and fitness centers located in the ERC, Ritchie Coliseum, and HHP. The fitness centers feature stairclimbers, bikes, rowers, total body conditioners, and treadmills. Weight rooms have a variety of free-weights and weight machines. The ERC also has racquetball/handball/wallyball and squash courts.

Students looking to play team or individual sports or take part in special sporting events will want to participate in the CRS Intramural Sports program. Students can participate year-round in team sports such as basketball, football, and soccer. Individual and dual sports include golf, racquetball, and many more. Intramural sports are structured activities that are open to all men and women from the campus community. Participants can select their own level of competition and play in either men's, women's, grad/fac/staff or coed leagues.

The Outdoor Recreation Center (ORC) is located in the northwest corner of the Eppley Recreation Center. The ORC offers outdoor adventures and clinics throughout the year. Take a backpacking trip, learn how to rock climb, or try white-water kayaking. The Climbing Wall and Challenge Course are two features of the ORC where students may challenge themselves both physically and mentally, increasing interpersonal skills and self-confidence. The ORC also has a resource library for planning your own trips, a bike repair shop, and equipment rentals.

A Sport Club is a student organization, registered with Campus Recreation Services, formed by individuals motivated by a common interest and desire to participate in a favorite sport activity. Clubs vary in focus and programming, since student members manage the operation of the club and decide on club activities. A sport club may be competitive, recreational, instructional, social, or all of these.

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1101 Memorial Chapel  
301-314-9866 (Chapel Reservations)  
www.chapel.umd.edu

The following chaplains and their services are available:

**Baptist**  
Mr. Jeffrey Buffkin  
2120 Memorial Chapel  
301-405-8443  
jbuffkin@umd.edu

**Black Ministries**  
Rev. Dr. Ruby Moone  
1112 Memorial Chapel  
301-405-8445  
Rrmoone2@aol.com

**Christian Science**  
Rev. Bob Snyder  
2118 Memorial Chapel  
301-474-0403  
rsnyder@umd.edu

**Church of Jesus Christ of Latter Day Saints**  
Mr. Dennis Monson  
7601 Mowatt Lane, College Park  
301-422-7570  
monsondb@ldsces.org

**Eastern Orthodox**  
Rev. Kosmas Karavellas  
Ms. Pat Jenkins, Assistant  
2747 Riva Rd  
Annapolis, MD 21401  
301-261-8218  
office@schgochurch.org  
jenkins58@hotmail.com

**Episcopal/Anglican**  
Rev. Dr. Peter Antoci  
2116 Memorial Chapel  
301-405-8453  
eaterps@umd.edu

**Hindu**  
Rev. Kiran Sankhla  
2112 Memorial Chapel  
301-570-6426  
muraris2002@yahoo.com

**Jewish - Hillel**  
Ari Israel, Director  
Hillel Jewish Student Center  
7612 Mowatt Lane, College Park  
301-422-6200  
aisrael@hillelmd.org

**Jewish - Chabad**
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Rabbi Eli Backman
Chabad Jewish Student Center
7403 Hopkins Ave., College Park
301-277-2994
chabad@umd.edu

Lutheran
Rev. Elizabeth Platz
2103 Memorial Chapel
301-405-8448
lutheran@umd.edu

Ms. Gail Douglas, Assistant

Muslim
Tanf Shraim
2118 Memorial Chapel
301-314-5259
tshraim@gmail.com

Roman Catholic
Rev. William Byrne
Catholic Student Center
4141 Guilford Rd., College Park
301-864-6223
frbill@catholicterps.org

United Campus Ministry
Rev. Holly Ulmer
2101 Memorial Chapel
301-405-8450
ulmer@umd.edu

United Methodist
Rev. Kim Capps
2102 Memorial Chapel
301-405-8451
umc@umd.edu
Transportation Services

Regents Drive Garage
301-314-PARK
www.transportation.umd.edu

Parking

The Department of Transportation Services (DOTS) is responsible for managing and maintaining more than 16,000 parking spaces on the University of Maryland campus. All students who plan to park a licensed motor vehicle in one of these spaces must either register for a parking permit at the DOTS office, park at paid meters or in a cashier-attended lot. Please note: Due to construction projects on campus the number of parking spaces could be dramatically reduced. Campus residential freshmen and resident sophomores are eligible to register for a parking permit.

Because the University of Maryland has limited parking spaces, parking regulations are strictly enforced. Illegally parked vehicles, as well as those vehicles not displaying a campus parking permit in areas requiring permits will be ticketed, and students with outstanding parking fines may be barred from registration.

Visit the DOTS Web site for complete procedures and parking regulations, disabled parking information, visitor parking areas, alternative transportation information, parking registration rates, motor vehicle assistance program information, schedule of fines, and other information is available.

Shuttle-UM (301-314-2255)

Shuttle-UM transit system is a unit within the Department of Transportation Services and is primarily a student-managed operation which is predominantly supported by student fees. Shuttle-UM provides Commuter, Evening, NITE Ride, Paratransit, and Charter Services to university students, faculty, and staff while classes are in session. Schedules are available at the Stamp Student Union Information Desk, the Department of Transportation Services, Shuttle-UM in Lot 4e, and on the DOTS Web site at www.transportation.umd.edu.

Carpooling

Commuter students who are able to form a carpool with up to 3 other students can register for the Smart Park carpool program, which rewards carpoolers by usually offering access to move convenient parking lots as well as crediting back a portion of their permit fees. To register, and to access the Smart Park database, visit the Department of Transportation Services Web site at www.transportation.umd.edu.

Park and Rides (Burtonsville and Laurel)

The Department of Transportation Services is offering free weekday transportation to faculty, staff, and commuter students in the form of Park & Rides. This service runs from the park & ride lots to the College Park campus. The Laurel Park & Ride lot is located on the northbound side of Route 197 (Laurel-Bowie Road) approximately 1/8 mile north of the intersection of Route 197 and Contee Road. The Burtonsville Park & Ride lot is located about 10 miles from campus and is between routes 198 and 29. Additional information can be found on the DOTS Web site.
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Community Service-Learning Office

1120 Stamp Student Union
301-314-2273
www.csl.umd.edu

The Community Service-Learning (CLS) Office promotes service-learning, as an integral aspect of education and fosters university engagement within the larger community. The CSL website contains information and resources such as an interactive database of 800+ community agencies, handouts, and step-by-step guidance for getting involved in service. CSL offers on-site personal assistance, a weekly listserv of service opportunities, and presentations across campus. CSL educational materials also include resources about social issues, leadership, curriculum development, and strategies for facilitating reflection.

Resources For Students
Supports students engaged in service through monthly networking meetings, an annual Leaders in Service retreat, and a three-credit course that links the issues of leadership, service, and social change. CSL participates in campus-wide resource fairs, coordinates volunteer recognition events and programs, and offers a consultation and presentations to any student group or organization. Each summer CSL offers a community-service Terrapin Expeditions for New and Transfer Students (Service TENTS).

Resources For Faculty
CSL promotes service-learning within academic courses across disciplines and within the living and learning communities. To that end we offer faculty workshops, individual consultation, sample syllabi, a lending library, and an on-line faculty handbook for service-learning. Programs for faculty include the service-learning undergraduate teaching assistant program, annual instructional improvement grants, and an ongoing assessment program.

America Reads/America Counts
In collaboration with UM's office of financial aid and the Prince George's County Public School system, over 100 Maryland federal work-study students serve as reading and math mentors in eleven under-sources schools in our county. America Reads also sponsors Partners in Print which encourages family literacy in America Reads schools.

Resources For the Community
Community agencies recruit students, faculty and staff by attending the annual involvement fair, participating outreach tables in the student union, and posting information on our interactive database and weekly listserv. CSL sponsors agency orientation programs and offers individual consultation to assist agencies with more targeted recruiting.

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0110 Stamp Student Union
301-314-7174
www.union.umd.edu/campusprograms

The mission of Campus Programs is to support and complement the university's academic mission and to enhance the educational experience of students through exposure to and participation in social, cultural, recreational, leadership, intellectual, and governance activities.

Student Organizations. Registers all student organizations at the university and makes available a directory of more than 500 groups on their web site. Organization support services including workshops, accounting assistance, advisors' workshops, and leadership training programs for organization leaders as well as involvement sessions offered for classes and through orientation are just some of the ways involvement is nurtured for organizations and individuals.

Organization Advising. Major student groups such as the Student Government Association, Graduate Student Government, the Homecoming Committee, and Student Entertainment Events receive direct advising from the staff. Other student groups can also obtain help from the staff by request. Staff will assist groups in programming, securing a faculty advisor, officer transitions, and in efforts to create new organizations.

Leadership Development. Offers a wide range of credit-bearing leadership courses offered in conjunction with the Counseling and Personnel Services Department in the College of Education. The office's web site details these offerings. In addition, the staff offers a wide range of training experiences in interpersonal and organizational development ranging in format from half-day seminars and weekend workshops to the full semester Terrapin Leadership Institute.

Commuter Students. Provides outreach and advocacy for students commuting to campus. Staff coordinate advising for individual commuter students and the University's Commuter Association.

Programs and Leisure Learning Opportunities. Staff work with student volunteers and leaders to provide options for out of class engagement in recreational options including the Hoff Movie Theater, the Art and Learning Center (offering non-credit courses), the Union Gallery (featuring regular displays of the visual arts), the Terp Zone (bowling, billiards, and more), and the regular offerings of Weekends at Maryland including First Friday programs and Phat Friday concerts. A complete listing of leisure options is featured in the Diamondback in a weekly calendar for both weekday and weekend events.

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Multicultural Involvement and Community Advocacy

1120 Stamp Student Union
301-314-8600
mica-contact@umd.edu

All of the activities, programs, services and research of the Office of Multicultural Involvement and Community Advocacy strive towards meeting the common outcome of developing "good citizens" towards their graduation, with a particular focus on being culturally competent, effective in diverse group environments, and engaged in a strong ethic of service to and leadership towards a socially just multicultural community. We organize our work around affirming identities and nurturing their development (i.e., advocacy for students who are Asian Pacific American, Black, Latina/o, Indigenous/Native American, Multiracial, Lesbian, Gay, Bisexual, and/or Transgender); building inclusive communities based on our individual and organizational diversity; and creating positive social change through leadership in our communities and campus-wide.

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Off-Campus Housing Services

1110 Stamp Student Union
301-314-3645
www.och.umd.edu

Off-Campus Housing Services maintains up-to-date computerized listings of various rental housing options (both vacant and to share). Area maps, apartment directories, transportation information and resources about living off campus are available in the office and on-line.
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Religious Programs

1101 Memorial Chapel
301-314-9866 (Reservations)
www.chapel.umd.edu

The following chaplains and their services are available:

**Baptist**
Mr. Jeffrey Buffkin
2120 Memorial Chapel
301-405-8443
jbuffkin@umd.edu

**Black Ministries**
Rev. Dr. Ruby Moone
1112 Memorial Chapel
301-405-8445
Rrmoone2@aol.com

**Christian Science**
Rev. Bob Snyder
2118 Memorial Chapel
301-474-0403
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**Church of Jesus Christ of Latter Day Saints**
Mr. Dennis Monson
7601 Mowatt Lane, College Park
301-422-7570
monsondb@ldsces.org

**Eastern Orthodox**
Rev. Kosmas Karavellas
Sts. Constantine and Helen Greek Orthodox Church, 2747 Riva Rd
Annapolis, MD 21401
301-261-8218
office@schgochurch.org
jenkins58@hotmail.com

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Ari Israel, Director
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aisrael@hillelmd.org

**Jewish - Chabad**
Rabbi Eli Backman
Chabad Jewish Student Center
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Ms. Gail Douglas, Assistant
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chabad@umd.edu
2103 Memorial Chapel
301-405-8448
lutheran@umd.edu

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United Campus Ministry
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ulmer@umd.edu

United Methodist
Rev. Kim Capps
2102 Memorial Chapel
301-405-8451
;umc@umd.edu
Stamp Student Union, Campus Programs and Multicultural Involvement and Community Advocacy

3100 Stamp Student Union
301-314-DESK
www.union.umd.edu

The Adele H. Stamp Student Union is the university's "community center." More than 20,000 students, faculty, staff members, and campus guests visit the Union daily to take advantage of its services, programs, and facilities. Our mission is to create and sustain a student-centered environment that promotes academic success and personal development; serves as a safe and inviting campus center; and is characterized by a strong commitment to multiculturalism, excellence, and a positive work environment.

The Union offers lounge space, a variety of information services, recreation and leisure activities, student-sponsored programs, visual arts, retail outlets, and more than 40,000 square feet of reservable space.

Information Services

- Information Center located on the first floor, 301-314-DESK
- Bulletin boards located throughout the building
- Display showcases located throughout the building

Recreation and Leisure

- Hoff Movie Theatre, 301-314-HOFF
- Terp Zone, including full-service bowling lanes, "Lunar Bowling," billiard tables, video games, and three big-screen TVs, 301-314-BOWL

Student-Sponsored Programs

- Student Entertainment Events (SEE), a student-directed program board whose committees plan games, tournaments, concerts, lectures, outdoor recreation trips, 301-314-8359
- Student Tutorial Academic Referral Center (STAR Center), offering tutor listings and test files, 301-314-8359
- Student Involvement Suite has offices for student groups and Student Government Associations
- Graduate Student Government

Art and Learning Center, 301-314-ARTS

- Art and Learning Center, a visual arts work and teaching center, offering mini-courses and arts services
- Union Art Gallery, located on the first floor

Food and Retail Outlets

http://www.umd.edu/catalog/index.cfm/show/content.section/c/47/ss/648/s/1262
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- Chevy Chase Bank, 301-864-8722
- University Book Center (basement level), 301-314-BOOK
- Food Services: Maryland Food Co-op (301-314-8089), Marketplace Deli (301-314-DELI), Taco Bell (301-314-6569), McDonald's (301-314-1489), Adele's Restaurant (301-314-8022), Coffee Bar (301-314-CAFE), Panda Express (301-314-6111), Sbarros (301-314-4105), Steak Escape (301-314-9665), Freshens (301-314-1310), Chick-Fil-A (301-314-6568), Subway (301-266-7827)
- Mailboxes Etc., a full-service postal and packaging facility, 301-314-9982
- Ticket Office, offering campus performance tickets, and a full Ticket Master Outlet, 301-314-TKTS
- Union Shop 301-314-7467, featuring snacks, sodas, newspapers, and magazines

Reservable Space
The Union offers meeting rooms that accommodate groups from 8 to 1,000 people. For reservations, or catering information, contact the Union Reservation Office, 301-314-8488.

Stamp Student Union Hours
The Union is open Monday through Thursday, 7 a.m. to midnight; Friday, 7 a.m. to 1:30 a.m.; Saturday, 8 a.m. to 1:30 a.m., and Sunday, 11 a.m. to midnight.

See other Stamp Student Union offices and services elsewhere in Chapter 3

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Off-Campus Housing Services
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3100 Stamp Student Union
301-314-DESK
www.union.umd.edu

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Chapter 4: Registration, Academic Requirements, and Regulations

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- Academic Advising
- Academic Regulations
- Academic Integrity and Student Conduct Codes
Degree Information

The University of Maryland, College Park, offers the following undergraduate degrees: Bachelor of Arts, Bachelor of Landscape Architecture, Bachelor of Music, and Bachelor of Science. Students in specified two-year curricula may be awarded certificates.

University of Maryland Student Academic Success-Degree Completion Policy

University of Maryland policy stipulates that full-time degree seeking students are expected to complete their undergraduate degree program in four years. To meet this expectation, students must plan carefully in consultation with an academic advisor; complete 30 credits each year (which is usually accomplished through a course load of 14 to 16 credits per semester); satisfy general education, prerequisite and other course requirements with acceptable grades in a timely manner; and meet the benchmarks. Academic units provide the benchmarks and sample templates of multi-semester plans leading to four-year graduation. Students are required to map out individualized four-year plans, consistent with these guidelines and benchmarks, and are responsible for updating them as circumstances change. Students who do not meet benchmarks are required to select a more suitable major. Students who change majors must submit a realistic graduation plan to the academic unit of the new major for approval. Any student who completes ten semesters or 130 credits without completing a degree is subject to mandatory advising prior to registration for any subsequent semester. Students with exceptional circumstances or those who are enrolled in special programs are required to develop a modified graduation plan that is appropriate to their situations. In all cases, students are responsible for meeting progress expectations and benchmarks required for their degree programs.

Every student should contact his or her college or department advisor to obtain the relevant materials for developing a four-year graduation plan and required benchmarks.

For information about this policy visit: www.ugst.umd.edu/academicsuccess.html and www.ugst.umd.edu/faqs-successpolicy.html

Classification of Students

Official classifications of undergraduate students are based on earned credits as follows: freshman, 1-29 semester hours; sophomore, 30-59; junior, 60-89; and senior, 90 to at least 120.

Degree Requirements

The requirements for graduation vary according to the character of work in the different colleges, schools, departments and academic units. It is the responsibility of the colleges, schools, departments and other academic units to establish and publish clearly defined degree requirements. Responsibility for knowing and meeting all degree requirements for graduation in any curriculum rests with the student. Specific degree requirements are listed in this catalog under the college and/or department as appropriate.

Each student should check with the proper academic authorities no later than the close of the junior year to ascertain his or her standing with respect to advancement toward a degree. For this purpose, each student should be sure to review their semester grades and unofficial transcript on the Testudo Interactive Student Website (www.testudo.umd.edu) at the close of each semester or request a semester grade report.
1. Residency requirement - Final 30-Hour Rule

a. All candidates for University of Maryland, College Park, degrees should plan to take their final 30 credits in residence since the advanced work of their major study normally occurs in the last year of the undergraduate program. Included in these 30 semester hours will be a minimum of 15 semester hours in courses numbered 300 or above, including at least 12 semester hours required in the major field (in curricula requiring such concentrations).

b. A student who at the time of graduation will have completed 30 credit hours in residence at the University of Maryland, College Park, may, under unusual circumstances, be permitted to take a maximum of 8 of the final 30 credits of record, comprising no more than two courses, at another institution. A student who has completed 75 credit hours in residence at the University, may, under unusual circumstances, be permitted to take a maximum of 16 of the final 30 credits of record, comprising no more than 4 courses, at another institution. In such cases, written permission must be obtained in advance from the dean and chair/director of the academic unit from which the student expects to graduate. Any course taken at another institution and intended to satisfy a specific major requirement at the University of Maryland must be approved as an equivalent course by the chair/director and the dean. Normally, no more than two courses required by the major, including major and supporting courses, will be approved. Exceptions beyond the articulated maximum credits and/or courses will be made only under highly unusual circumstances; requests for an exception must be made through the Dean's office to the Office of the Senior Vice President for Academic Affairs.

c. For students in the combined three-year, preprofessional programs, the final 30 hours of the 90-hour program at the University of Maryland, College Park, must be taken in residence.

2. Credit Requirements

While several undergraduate curricula require more than 120 credits, no baccalaureate curriculum requires fewer than 120. No baccalaureate will be awarded in instances in which fewer than 120 credit hours have been earned. It is the responsibility of each student to familiarize himself or herself with the requirements of specific curricula. The student is urged to seek advice on these matters from the departments, colleges, or the Office of the Dean for Office of Undergraduate Studies. To earn a baccalaureate from the University of Maryland, College Park, a minimum of 30 credits must be taken in residence.

3. Enrollment in Majors

A student who is eligible to remain at the University of Maryland, College Park, may transfer among curricula, colleges, or other academic units except where limitations on enrollments have been approved. By the time they complete 60 credits, students are expected to declare a degree-granting major. Students must be enrolled in the major program from which they plan to graduate, when registering for the final 15 hours of the baccalaureate program. This requirement also applies to the third year of the combined, pre-professional degree programs. Also see information on double majors and double degrees elsewhere in this chapter.

4. Grade Point Average

A minimum cumulative 2.0 grade point average is required for graduation in all curricula.

Minors

Minors afford students the opportunity to pursue a limited but structured concentration in a coherent field of study outside their major. The minor may be a truncated version of a major or a distinctive intellectual subset of a discipline. Minors are not offered in every field of study. Students should inquire with departments for current availability of minors or see
The structures of minors vary in detail, but, with rare exceptions, they all require no fewer than 15 and no more than 24 credits with at least 9 credits in upper division courses (300 level or above). No more than six credits (or two courses) may be applied to satisfy both the requirements of a minor and a major program. No course may be used to satisfy the requirements of more than one minor. All courses taken for a minor must be completed with a minimum grade of C.

To ensure appropriate academic advising, students who wish to pursue a minor should inform both the college responsible for their major and the unit offering the minor as early as possible, but in no case later than one full academic year before the expected date of graduation. When a student has completed all requirements for the minor, the unit offering the minor shall notify the student’s college, which verifies that the student has met all requirements and officially notifies the Registrar’s Office. The completion of a minor is posted on the student’s official transcript only when the student completes all requirements for the bachelor’s degree.

In February 2004, the University Senate voted to phase out academic citations and replace them with minors. Students pursuing an academic citation should contact the respective department or program for information on this conversion process.

Second Majors and Second Degrees

Second majors

A student who wishes to complete a second major concurrently with his or her primary major of record must obtain written permission in advance from the appropriate departments or programs and colleges. As early as possible, but in no case later than one full academic year before the expected date of graduation, the student must file with the department or programs involved and with the appropriate deans, formal programs showing the courses to be offered to meet requirements in each of the majors and supporting areas as well as those of the college and general education programs. A student who wishes to add a Limited Enrollment Program as a second major must do so at the earliest possible opportunity to assure that specific credit and GPA requirements can be met. In order to obtain approval, students must complete all of the requirements specified for both the primary and secondary major. Courses taken for one major may be counted as appropriate as part of the degree requirements for the general education programs. If two colleges are involved in the double major program, the student must designate which college will be responsible for the maintenance of records and certification of general education requirements. Final approval of a double major program must be obtained from each of the appropriate departments and college(s).

Second Degrees Taken Simultaneously

A student who wishes to receive two bachelor’s degrees simultaneously must satisfactorily complete the regularly prescribed requirements of both degree programs and a minimum of 150 credits (180 credits if one of the degrees is in Special Education). At least 18 of the credits applied to one degree must be in course work not applied to the requirements of the other degree program. As early as possible, but in no case later than one full academic year before the expected date of graduation, the student must file with the department or programs involved, as well as with the appropriate deans, formal programs showing the courses to be offered to meet the major, supporting area, college, and general education programs. If two colleges are involved in the double degree program, the student must designate which college will be responsible for the maintenance of records and certification of general education requirements. Final approval of a double degree program must be obtained from each of the appropriate departments and college(s).

Second Degrees Taken Sequentially

A student who has completed the requirements for, and has received one baccalaureate and who wishes to earn a second degree from the university must satisfactorily complete all of the prescribed requirements for the second degree and enough additional credits so that the total, including all applicable credits earned at the university or elsewhere, is at least 150 credits (180 credits if one of the degrees is in Special Education). At least 18 of the credits applied to one
degree must be in course work not applied to the requirements of the other degree program. In no case will a second baccalaureate be awarded to a student who has not completed a minimum of 30 credits in residence at the university.

Post-Baccalaureate Second Degree

A student who has completed a bachelor’s degree at another accredited or recognized college or university and wishes to earn a second degree, must satisfy all current degree requirements, including General Education requirements. A course by course evaluation of the student’s prior collegiate work will be undertaken to determine which requirements have been satisfied by prior coursework. In no case, will a second baccalaureate be awarded to a student who has not completed a minimum of 30 credits in residence at the university.

Combined Bachelor's/Master's Programs

In a combined bachelor’s/master’s program, some graduate level courses initially taken for undergraduate credit may also be applied towards the graduate credit requirements for a master’s degree program at the University of Maryland. A bachelor’s/master’s program may be developed for an individual student, or it may be a structured program.

Individual Student Bachelor’s/Master’s Program: A program may be developed by an individual student in consultation with his/her academic advisor. Such a program is available only to students whose academic performance is exceptional. It is to be developed according to the individual career interests and goals of the student and should be an integrated learning experience rather than merely the completion of a certain number of graduate and undergraduate credits. The program requires the approval of the directors of both the undergraduate and the graduate programs involved and of the Dean for Office of Undergraduate Studies and the Dean of the Graduate School. Normally, no more than nine credits of graduate courses applied to the bachelor’s degree may be counted also for graduate credit in an individual student program. Courses to be double-counted must be at the 600 level or above and must be passed with at least a B grade. Individual study courses, internships, or courses given credit by examination are not eligible. The credits to be double-counted will be designated as applicable to the graduate program after the student receives the bachelor’s degree and matriculates in the Graduate School. This designation will be canceled if the student withdraws from the graduate program before completing the master's degree.

Structured Bachelor’s/Master’s Program: A structured bachelor's/master’s program is an articulated curriculum combining an existing undergraduate program and an existing master’s program at the University of Maryland, offered by the same or by different departments. Such a program is to be designed for students whose academic performance is exceptional and should be an integrated learning experience rather than merely the completion of a certain number of graduate and undergraduate credits. A proposal for such a program should be submitted by the college(s) housing the academic programs concerned and requires the approval of the Graduate Council, the Graduate Dean, the Senate PCC Committee, and the Provost.

Necessary features of a structured bachelor’s/master’s program include the following:

a. There must be specific requirements for admission to the combined program that speak to the exceptional performance of the students to be admitted. At a minimum, students accepted for the program must be clearly admissible to the graduate program portion.

b. The program should be designed so as not to unduly delay the student’s receipt of their bachelor's degrees. Taking graduate credits should not unduly limit the breadth of the student’s experience through premature specialization.

c. All requirements of the bachelor's program and of the master’s program must be completed to receive the two degrees. Where appropriate, graduate courses taken while an undergraduate may substitute for courses required in the undergraduate major program.

d. The student may be offered deferred admission to the graduate school at the end of the Junior year program, subject to completion of the senior year program
in a timely fashion and with a specified level of achievement. Formal admission to the graduate school will require completion of all requirements for the bachelor's degree.

e. The credits to be double-counted will be designated as applicable to the graduate program after the student receives the bachelor's degree and matriculates in the Graduate School. This designation will be canceled if the student withdraws from the graduate program before completing the master's degree.

A structured bachelor’s/master’s program may normally include up to nine credits of graduate level courses (600 level and above) that are counted both for the bachelor’s program and the master’s program. More than nine double-counted credits may be allowed if both of the following conditions are satisfied.

a. The additional graduate credits applied to the undergraduate program do not unduly limit the breadth of the student’s experience through premature specialization. This condition may be satisfied, for example, if the graduate credits substitute for courses required in the undergraduate program that would have been taken in any case, but at a less advanced level.

b. The master’s program requires substantially more than thirty credits. This condition will be deemed to be satisfied if the combined program, with double-counting, still requires 150 or more credit hours to complete.
Registration

REGISTRATION
Office of the Registrar
Mitchell Building, 301-314-8240
www.testudo.umd.edu

To attend classes at the University of Maryland, College Park, it is necessary to process an official registration. Specific registration dates and instructions are printed in the Schedule of Classes and on the Testudo web site, www.testudo.umd.edu. The Schedule of Classes is issued for the spring, fall and summer sessions. Winter Term information is printed in the Fall Schedule of Classes, and on the Testudo web site.

Newly admitted students are invited, and strongly encouraged to attend an orientation session (see chapter 3 for Orientation information). Advising and course registration are part of the orientation process. All newly admitted students must meet with an advisor prior to registration. Additionally, newly admitted freshmen and transfer students are required to provide proof of immunization for measles, rubella, mumps and tetanus/diphtheria. Additionally, Maryland law requires resident hall students to either provide proof of vaccination against meningococcal disease or seek an exemption from this requirement.

Registration Process: Currently enrolled students are invited to early registration by appointment. Registration appointments for the fall semester begin in April, and appointments for the spring semester begin in late October. Registration can be processed on the Testudo web site or in person. Open registration follows early registration, and continues up to the first day of classes. During this time students may make schedule adjustments or process an original registration. The schedule adjustment period begins on the first day of classes. All registration transactions, either on-line or in person, are final unless a student processes a cancellation of registration.

Cancellation of Registration: Students who register and later decide not to attend the University must cancel their registration with the Office of the Registrar prior to the official first day of classes. Failure to cancel registration will result in a financial obligation to the University of Maryland even though a student does not attend class. The University reserves the right to cancel registration for students who fail to meet their financial obligations.

Schedule Adjustment: The schedule adjustment period is the first 10 days of classes for the fall and spring semesters, the first 5 days of classes for Summer Sessions I and II, and the first 3 days of classes for Winter Term and 3-week accelerated Summer courses. Courses may be added, when space is available, during the schedule adjustment period, and will appear on the student's permanent record along with other courses previously listed. Courses dropped during this period will not appear on the student's permanent record.

Departments may identify courses or sections of courses (with the approval of the Office of the Senior Vice President for Academic Affairs), which after the first five days of the schedule adjustment period in Spring and Fall semesters, shall require faculty or departmental approval for students to add.

- During the schedule adjustment period full-time undergraduates may drop or add courses, or change sections or credit level without financial penalty provided they remain full-time students (registered for 12 or more credits). Consult the Schedule of Classes for information and penalties associated with changing from full-time to part-time.
Part-time undergraduates (fewer than 12 credits) may also add, drop and change sections, as well as change credit level, but they should consult the deadline section in the Schedule of Classes to avoid incurring additional charges.

Grading Method (including pass-fail) may be changed only during the schedule adjustment period.

In the case of students who are advised in the Division of Letters and Sciences when Dean's approval is required, the Dean for Office of Undergraduate Studies shall assume the responsibilities normally delegated to the Dean.

After Schedule Adjustment

Courses may not be added without special permission of the department and the dean of the academic unit in which the student is enrolled.

All courses for which the student is enrolled shall remain as a part of the student’s permanent record. The student’s status shall be considered full-time if the number of credit hours enrolled at this time is 12 or more.

An official class list for each course being offered is issued to the appropriate department by the Office of the Registrar. Electronic rosters are provided to all faculty with email accounts. Students are not permitted to attend a class if their names do not appear on the class list. Instructors must report discrepancies to the Office of the Registrar.

Drop Period

The drop period for undergraduate students will begin at the close of the schedule adjustment period and terminate at the end of the tenth week of classes for the fall and spring semesters, and at a comparable time for summer sessions and Winter Term. Consult the Schedule of Classes for dates.

During this period a student may drop a maximum of four credits. However, if the course carries more than four credits, the student may drop the entire course, or in the case of a variable credit course, reduce the credit level by up to four credits. Drops during this period will be recorded on the student’s permanent record with a notation of W and will be considered to represent a single enrollment (one of two possible) in the course. This mark will not be used in the computation of a student’s cumulative grade point average.

Credit Hours and Maximum Credits Each Semester

No baccalaureate curriculum requires fewer than 120 semester hours. The semester hour, which is the unit of credit, is the equivalent of a subject pursued one period a week for one semester. Two or three hours of laboratory or field work are equivalent to one lecture or recitation period.

In order for undergraduate students to complete most curricula in four academic years, their semester load must range from 12 to 19 hours (30 to 36 hours each year) toward the degree. By policy, undergraduates may not exceed the following maximum credit loads without the prior approval of their Dean: 20 credits in a 15 week semester; 8 credits in a 6 week summer term, or 4 credits in an accelerated 3 week term.

Concurrent Undergraduate-Graduate Registration

An undergraduate degree seeking student at the University of Maryland may, with the approval of his or her Dean, of the department and the instructor offering the course, and of the Graduate School, register for graduate courses (600 level and above) that will be recorded as for graduate credit only and that may be applied towards an advanced degree at this university or elsewhere. Students eligible for this option normally will have achieved Junior standing, will have a GPA of at least 3.0, and will have successfully completed the prerequisite
courses with a grade of B or better. The student must submit a plan of study that shows that taking graduate courses will not unduly delay completion of requirements for the bachelor’s degree. The total of graduate and undergraduate credits attempted in any semester may not be more than eighteen. The graduate credits so earned will not count towards any of the requirements for the Baccalaureate degree. A maximum of twelve credits may be taken for graduate credit by a student while enrolled as an undergraduate.

**Undergraduate Credit for Graduate Level Courses**

Subject to requirements determined by the graduate faculty of the department or program offering the course, undergraduate degree-seeking students may register for graduate-level courses, i.e., those numbered from 600 to 898, with the exception of 799, for undergraduate credit. The student must obtain the prior approval of the department and instructor offering the course.

Students eligible for this option normally will have achieved Junior standing, will have a GPA of at least 3.0, and will have successfully completed the prerequisite courses with a grade of B or better.

in a graduate-level course does not in any way imply subsequent departmental or graduate school approval for admission into a graduate program, nor may the course be used as credit for a graduate degree at the University of Maryland.

**Withdrawal and Leave of Absence**

Students admitted to the University of Maryland are expected to make regular and consistent progress towards the completion of their degree. However, the University understands that in exceptional circumstances a student may find it necessary to completely withdraw from all classes. The University considers such an interruption to be very serious as it delays normal progress towards the degree. Students should not withdraw for frivolous reasons or to avoid the consequences of ignoring their academic responsibilities. Any student considering withdrawal is strongly encouraged to meet with his or her academic college advisor before leaving the University.

**Potential Implications:** Withdrawing or taking a leave of absence from the University may have serious implications for international students, students receiving financial aid or students residing in on-campus housing. Students are advised to contact the appropriate offices before finalizing withdrawal or leave of absence plans.

Student Financial Services Office: 1135 Lee Building, 301-314-9000
Department of Resident Life: 2100 Annapolis Hall, 301-314-2100
International Education Services: 3117 Mitchell Building, 301-314-7740

**Withdrawal:** A withdrawal is available anytime between the first and last day of classes. Students must submit written notice of withdrawal to the Office of the Registrar no later than the last day of classes. A student’s return to the University is contingent upon the conditions outlined in Return to the University below.

**Leave of Absence:** A leave of absence is a type of withdrawal and is available for students wishing to take time away from the University with the intention of returning the following semester. The leave of absence status is especially helpful for recipients of federal financial aid because they are not considered to be withdrawn provided they do return and complete the following semester. Students may apply for a leave of absence only during the last 60 days of the semester. A student’s return to the University is contingent upon the conditions outlined in Return to the University below.

**Return to the University:** Normally, a student may withdraw or take a leave of absence from the University only once during matriculation as an undergraduate. Students who find it necessary to leave the University are required to petition the Faculty Review Board in order to return. Students who have earned a minimum 2.0 cumulative GPA, with no previous withdrawal or leave of absence, are exempt from this requirement. Students who withdraw or take a leave of absence while on academic probation, or those returning from dismissal, are always required to petition the Faculty Review Board. Students are also required to complete a Reinstatement Advising Meeting with their academic college advising office before the petition will be
considered by the Faculty Review Board.

**Additional Withdrawal/Leave of Absence Information:** The effective date of withdrawal or leave of absence for the purposes of refunds is the date that the notice is received by the Office of the Registrar. Notation of withdrawal/leave of absence and the effective date will be posted to the student’s academic record. Instructors and college offices will be notified of all withdrawn students. The deadline date for submitting the withdrawal for each semester is the last day of classes. Students should contact the Office of Undergraduate Admissions for reenrollment information.

The repeat policy will not apply to courses taken during the academic semester from which the student is officially withdrawn.

**Military Call-ups:** It is the intent of the University of Maryland, College Park, to facilitate the withdrawal or change in registration and the reenrollment of students who are called to active military duty during the semester. The student (or a representative) should take a copy of the military orders to the Office of the Registrar and process withdrawal or change in registration papers. Detailed information about this process may be obtained from the Office of the Registrar. Withdrawal for active military service will have no effect on any subsequent request to withdraw from the University.

**Courses Taken at Other Institutions**

Courses taken at another institution may not be credited toward a degree program without prior approval of the dean of the college from which the student expects to earn a degree. Eligible students may enroll in courses at other Universities via the University System of Maryland’s Inter Institutional Registration Program or the Consortium of Universities of the Washington Metropolitan Area.

**Consortium of Universities of the Washington Metropolitan Area:**

The Consortium of Universities of the Washington Metropolitan Area consists of American University, The Catholic University of America, Corcoran College of Art and Design, Gallaudet University, Georgetown University, George Mason University, The George Washington University, Howard University, Marymount University, Joint Military Intelligence College, National Defense Intelligence College, Southeastern University, Trinity University, University of the District of Columbia and the University of Maryland College Park. Students enrolled in these institutions are able to attend certain classes at the other campuses and have the credit considered as resident credit at their home institutions. Comparable courses offered at the University of Maryland may not be taken through the Consortium. The intention is to allow students to take an occasional course to augment a program rather than to develop an individual program. Payment of tuition for courses will be made to the student’s home campus however, special fees may be assessed by the host institution.

Currently registered, degree seeking University of Maryland students with at least junior standing may participate in the Consortium program according to the stipulations listed in the current edition of the Schedule of Classes. Enrollment in courses is available only on a space-available basis. Visiting students are expected to meet prerequisites or other criteria set by the host institution and comply with the host institution’s registration procedures and deadlines.

Golden ID students are not eligible to enroll in courses through the Consortium with waiver of fees. University of Maryland students may only enroll in courses offered on the campus of the host institution. Students interested in additional information about the Consortium program should review the current edition of the Schedule of Classes or contact the Consortium Coordinator on the first floor of the Mitchell Building.

**University System of Maryland Inter-Institutional Registration Program:**

Undergraduate students have the opportunity to take courses at certain University System of Maryland Institutions to augment their degree program at University of Maryland College Park under the Inter-Institutional Registration Program. Participating institutions include Bowie State University, Coppin State University, Frostburg State University, Salisbury State University, Towson University, University of Baltimore, University of Maryland at Baltimore, University of
Maryland, Baltimore County, University of Maryland College Park and University of Maryland Eastern Shore. University of Maryland College Park students may not enroll in courses at the University of Maryland University College through this program. Currently registered, degree seeking University of Maryland students with at least sophomore standing may enroll in courses and have that credit considered as resident credit at their home institution. Enrollment in courses is available only on a space available basis and visiting students are expected to meet prerequisites or other criteria set by the host institution. Payment of tuition for courses will be made to the student's home campus however special fees may be assessed by the host institution. Students interested in additional information about the Inter-Institutional Registration program should review the current edition of the schedule of classes or contact the Consortium Coordinator on the first floor of the Mitchell Building.

Other Registration Matters

Student ID Numbers

The University of Maryland assigns all students a unique nine-digit identification number called the U ID Number. This number is used as a student identifier for most university transactions. Students are also required to provide their Social Security Number, which is used for a limited number of purposes that are required by law or business necessity. A list of currently approved uses is provided in Chapter 10, Appendix M.

Use of Email for Official Communication

The University has adopted email as the primary means for sending official communications to students. Academic advisors, faculty, and campus administrative offices use email to convey important information and time-sensitive notices. All enrolled students are provided a University email address. Students are responsible for keeping their email address up to date or for forwarding email to another address. Failure to check email, errors in forwarding email, and returned email due to mailbox full or user unknown will not excuse a student from missing announcements or deadlines.

Change of Address

Students are expected to notify the Office of the Registrar of any change in their local, permanent or e-mail address. Use the internet to keep address information current and accurate. Change of address forms are available at the following places:

Testudo web site: www.testudo.umd.edu, select Records and Registration

Office of the Bursar, Room 1115 or 1135, Lee Building

Student Services Counter, first floor, Mitchell Building

Identification Card

The photo ID card is issued at the time the student first registers for classes. This card is to be used for the entire duration of enrollment. Additionally, students who have food service contracts will use this photo identification card. Contact Dining Services (information in chapter 3) directly for further information.

The photo identification card can be used by students to withdraw books from the libraries, for admission to most athletic, social, and cultural events, and as a general form of identification on campus.

There is a replacement charge of $20 for lost photo identification cards. Questions concerning the identification card system should be addressed to the Office of the Registrar.

Veterans Benefits
Students attending the university under the Veterans Education Assistance Act (Title 38, U.S. Code) may receive assistance and enrollment certification at the Veterans Certification Office, in the Office of the Registrar, first floor, Mitchell Building. Consult the Schedule of Classes for further information.

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Academic Advising

Academic advising is an integral part of each student's educational experience and it takes many forms. Academic advising is a shared responsibility between the student and the advisor. For more information visit [www.advising.umd.edu](http://www.advising.umd.edu). Together with a student, an academic advisor can:

**Monitor students' progress in their major.**

**Provide information on academic requirements needed for graduation:**

- Discuss how a course of study fits a particular academic or career interest.
- Answer questions concerning a specific academic concern, such as problems with a particular class.
- Assist students in developing an academic and career plan.
- Inform students about possible scholarships or fellowships and how to apply for them.
- Guide students through the registration process, including providing information on various registration blocks and what needs to be done to remove them.

**Help students plan for future graduate study or career:**

- Discuss how an academic major can prepare a student for his/her career, and what career options are available.
- Refer students to the Career Center which provides career counseling as well as workshops on various careers, on writing resumes, preparing for job interviews, etc.
- Inform students about graduate school requirements and application procedures.
- Inform students about internship opportunities and how they can possibly receive credit for them.
- Provide information on study abroad programs that might enrich a student's academic experience as well as enhance their resume.

**Serve as a campus resource:**

- Refer students to various academic support units that provide tutoring or workshops on study skills, time management, stress management, etc.
- Recommend that students seek counseling for stress, addictions, trauma that may be affecting their academic work.
- Inform students with physical and learning disabilities of the support available to them.
- Encourage students to get involved on campus via social, political, academic, ethnic/cultural, sport and/or recreational student organizations and activities.

Some advisors can provide information on all of the above. Others specialize in a particular topic or area of concern. For example, a college/department may have a specific career advisor or study abroad coordinator. Furthermore, some advisors work with specific populations, i.e. returning students, athletes, students with physical or learning disabilities, students of color, etc.

When requesting to meet with an advisor, specify what topics you wish to discuss to ensure that you are directed to the appropriate individual.
Academic Regulations

Records

The Office of the Registrar, located on the first floor of the Mitchell Building, is responsible for maintaining student records and issuing official transcripts.

Marking System

The following symbols are used on the student’s permanent record for all courses in which he or she is enrolled after the initial registration and schedule adjustment period: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, XF, I, P, S, and W. These marks remain as part of the student’s permanent record and may be changed only by the original instructor on certification, approved by the department chair and the dean, that an actual mistake was made in determining or recording the grade.

- A+, A, A- denotes excellent mastery of the subject and outstanding scholarship. In computations of cumulative or semester averages, a mark of A+, A, A- will be assigned a value of 4 quality points per credit hour.

- B+, B, B- denotes good mastery of the subject and good scholarship. A mark of B+, B, B- is assigned a value of 3 quality points per credit hour.

- C+, C, C- denotes acceptable mastery of the subject. A mark of C+, C, C- is assigned a value of 2 quality points per credit hour.

- D+, D, D- denotes borderline understanding of the subject. It denotes marginal performance, and it does not represent satisfactory progress toward a degree. A mark of D+, D, D- is assigned a value of 1 quality point per credit hour.

- F denotes failure to understand the subject and unsatisfactory performance. A mark of F is assigned a value of 0 quality points per credit hour.

- XF denotes failure due to academic dishonesty.

- S is a department option mark that may be used to denote satisfactory performance by a student in progressing thesis projects, orientation courses, practice teaching, and the like. In computation of cumulative averages a mark of S will not be included.

- W is used to indicate withdrawal from a course in which the student was enrolled at the end of the schedule adjustment period. For information and completeness, the mark of W is placed on the student’s permanent record by the Office of the Registrar. The instructor will be notified that the student has withdrawn from the course. This mark is not used in any computation of quality points or cumulative average totals at the end of the semester.

- Audit - A student may register to audit a course or courses which have been designated as available under the audit option and in which space is available. The notation AUD will be placed on the transcript for each course audited. A notation to the effect that this symbol does not imply attendance or any other effort in the course will be included on the transcript in the explanation of the grading system.

- Pass-Fail - The mark of P is a student option mark, equivalent to A+, A, A-, B+, B, B-, C+, C, C-, D+, D or D-. The student must inform the Office of the Registrar of the selection of this option by the end of the schedule adjustment period.

Pass-Fail Policy: The following Pass-Fail policy was approved by the Board of Regents for implementation beginning with the Spring 1989 semester:
Appendices

In addition to the above marks, there are provisions for other record or transcript notations that may be used based on university policy and individual circumstances.

**Duplicate course:** Used to indicate two courses with the same course content. The second course is counted in the cumulative totals earned; both courses are counted in the cumulative attempted credit and in the calculation of grade point average.

**Non-applicable (Non-Appl):** In all cases of transfer from one college to another at the University of Maryland, College Park, the dean of the receiving college, with the approval of the student, shall indicate which courses, if any, in the student’s previous academic program are not applicable to his or her new program, and shall notify the Office of the Registrar of the adjustments that are to be made in determining the student’s progress toward a degree. Deletions may occur both in credits attempted and correspondingly in credits earned. This evaluation shall be made upon the student’s initial entry into a new program, not thereafter. If a student transfers from one program to another, his or her record evaluation shall be made by the dean in the same way as if he or she were transferring colleges. If the student subsequently transfers to a third college, the dean of the third college shall make a
similar initial adjustment; courses marked nonapplicable by the second dean may become applicable in the third program.

**Excluded Credit (Excl Crd):** Excluded credit is noted when Academic Clemency has been granted.

**Computation of Grade Point Average**

GPA is computed by dividing the total number of quality points accumulated in courses for which a grade of A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, or F has been assigned by the total number of credits attempted in those courses. Courses for which a mark of P, S, I, NGR or W has been assigned are not included in computing the GPA. Each letter grade has a numerical value: A+, A, A- = 4; B+, B, B- = 3; C+, C, C- = 2; D+, D, D- = 1; F = 0. Multiplying this value by the number of credits for a particular course gives the number of quality points earned for that course.

See Repeat Policy to determine the effect of repeated courses in the calculation of GPA.

**Campus Repeat Policy**

The following policies apply to ALL courses that may not be repeated for additional credit.

1. The following students are required to follow the new repeat policy:
   a. All new freshmen who began at University of Maryland, College Park Fall 1990 and after.
   b. Transfer students from schools other than Maryland community colleges who began at University of Maryland, College Park, Fall 1990 and after. This includes transfer students from another University of Maryland institution.

2. There is a limit to the number of times a student may repeat a course. Students may have one repeat of any course in which they earned an A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, or F. They cannot be registered (after the schedule adjustment period) for any given course more than twice. A student's dean's office may grant an exception allowing an additional course repeat. In this case, students must present a plan for successfully completing the course. All attempts will be counted toward the total limit for repeatable credits.

   **Note:** Students may not choose the Pass-Fail option when re-registering for a course or re-register for a course in which a grade of I has been noted.

3. Students may repeat no more than 18 credits. Additionally, if a student withdraws from all courses during a semester, those courses are not included in this limit.

4. The grade point average will include all attempts at a given course that result in a grade of A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F, P, S, W, NGR or Audit; they cannot be registered (after the schedule adjustment period) for any given course more than twice. A student's dean's office may grant an exception allowing an additional course repeat. In this case, students must present a plan for successfully completing the course. All attempts will be counted toward the total limit for repeatable credits.

   **Note:** Students may not choose the Pass-Fail option when re-registering for a course or re-register for a course in which a grade of I has been noted.

5. Any grade earned in prior attempts of a repeated course will appear on the student's transcript, regardless of whether the grade is dropped from, or included in, the cumulative grade point average.

6. Repeat by transfer: If a student repeats by transfer a course that was taken before or during the semester in which the student reached 24 credits attempted (including transfer credits) and the transfer grade is higher, then the original grade in the course will be excluded from the GPA calculation.

   a. If the course was taken after the semester in which the student reached 24 credits attempted, the original grade remains in the GPA calculation.

**Repeat Policy Prior to Fall 1990:**

The following students follow the previous repeat policy:
• Students who began at University of Maryland, College Park, before the Fall 1990 semester (including students who enter University of Maryland, College Park for summer 1990).
• Transfer students who began at a Maryland community college before Fall 1990.
• UMBC College of Engineering students who began before 1990.

The highest grade received in the repeated course is used to calculate the GPA. A student may repeat any course; however no student may be registered for a course more than three times.

If a student repeats a course in which he or she has already earned a mark of A, B, C, D, P, or S, the subsequent attempt shall not increase the total hours earned toward the degree. Only the highest mark will be used in computation of the student’s cumulative average. Under unusual circumstances, the student’s dean may grant an exception to this policy.

Academic Clemency Policy

Undergraduate students returning to the University of Maryland, College Park in pursuit of their initial baccalaureate degree, after a separation of five calendar years may petition the appropriate dean to have a number of previously earned grades and credits removed from the calculation of their cumulative grade point average. Up to 16 credits and corresponding grades from courses previously completed at the University of Maryland, College Park, will be removed from calculation of the grade point average and will not be counted toward graduation requirements. The petition for clemency must be filed in the first semester of return to the institution. Approval is neither automatic or guaranteed.

Semester Academic Honors

Semester Academic Honors (Dean’s List) will be awarded to those students who complete, within any given semester (excluding winter and summer terms), 12 or more credits (excluding courses with grades of P and S) with a semester GPA of 3.5 or higher. This recognition will be noted on the student’s academic record.

Undergraduate Policy on Academic Probation and Dismissal

Consistent with the University of Maryland Student Academic Success - Degree Completion Policy, it is the intent of the University that its students make satisfactory progress toward their degree objectives, and achieve academic success. If a student has special circumstances that make it impossible to complete a normal course load, the student must meet with an advisor to discuss the circumstances, the student’s plans for continued progress toward a degree, and the implications for continued enrollment.

The following guidelines for retention of students refer separately to semester (Fall and Spring) and Winter or Summer terms:

a. Academic retention is based solely on grade point average (GPA). A minimum of 120 successfully completed course credits is required for graduation in any degree curriculum. Individual colleges, schools, and departments may establish higher requirements for graduation. Students must consult the appropriate college, school, or department for specific information.

b. Satisfactory Performance is defined as the achievement of a cumulative GPA of 2.0 or above. Students whose semester GPA falls below 2.0 are encouraged to meet with their advisors regarding the development of a plan that will appropriately respond to the student’s academic difficulties and lead to academic improvement. Individual colleges, schools and departments may establish separate requirements for mandatory advising. Students must consult the appropriate college, school, or department for specific information.

c. Unsatisfactory Performance is defined as the achievement of a cumulative GPA of less than 2.0. Students will be placed on Academic Probation following any semester in which a 2.0 cumulative GPA is not achieved. Normally, students will be Academically Dismissed if they are unable to raise their cumulative GPA to 2.0 or higher at the end of their probationary semester.

Academic Probation:

Students will be placed on academic probation if their cumulative GPA falls below 2.0. Normally, student is expected to attain a 2.0 cumulative GPA at the end of any probationary semester. Students who fail to achieve a 2.0 cumulative GPA at the end of their probationary semester may be academically dismissed, depending on their credit level as detailed below.

1. Students who have earned 60 credits or more will be dismissed from the University in the event their cumulative GPA remains below 2.0 at the end of their probationary semester. Students who are on probation and attain a cumulative GPA of 2.0 at the end of a winter or summer term will not be subject to dismissal in the subsequent semester.

2. Students who are on academic probation and have earned fewer than 60 credits will be permitted to continue on academic
probation if a minimum semester GPA of 2.0 is achieved in each semester of probation.

a. Full-time students must complete 9 or more credits in each semester of probation. A completed credit is defined as credit for any course in which a student receives a grade of A, B, C, D, F, P, or S.

b. Students who meet this requirement will be permitted to continue on probation until the close of the semester (excluding winter and summer terms) in which they attain a cumulative GPA of 2.0.

c. However, students who are on probation will be dismissed if they have not achieved a cumulative GPA of 2.0 at the end of the semester in which they complete 60 credits.

d. Students who are on probation and attain a cumulative GPA of 2.0 at the end of a winter or summer term will not be subject to dismissal in the subsequent semester.

3. The Office of the Registrar will notify students when they are placed on academic probation. Such notices will include a requirement that the students consult an academic advisor in their colleges early in the probationary semester and in no event later than the beginning of the early registration period for the next semester. The Office of the Registrar will notify the colleges of students who are placed on academic probation and will note the academic probationary status on the student's academic record.

   a. The academic advisors will assist students in developing appropriate plans for achieving satisfactory academic performance.

   b. Students who are placed on probation will not be allowed to add or drop courses, or register without the approval of an academic advisor in their college.

**Academic Dismissal:**

1. Students who have earned 60 or more credits will be dismissed if their cumulative GPA remains below 2.0 for two consecutive semesters (excluding winter and summer terms). Students who attain a cumulative GPA of 2.0 in the preceding winter or summer term will not be subject to dismissal.

2. Students who have earned fewer than 60 credits will be dismissed following any probationary semester in which they fail to attain a minimum 2.0 semester GPA and complete the requisite credits detailed under Academic Probation. Students who attain a cumulative GPA of 2.0 in the preceding winter or summer term will not be subject to dismissal.

3. Students who have been academically dismissed and who are reinstated will be academically dismissed again if a cumulative GPA of at least 2.0 is not achieved by the end of the first semester after reinstatement. Reinstated students will not be allowed to add or drop courses, or to register during any semester without the approval of an academic advisor in their college, unless a cumulative GPA of at least 2.0 is achieved.

4. The Office of the Registrar will notify the appropriate University offices when students are academically dismissed and will note the dismissal on the student's academic record.

5. The Office of Undergraduate Admissions will notify students in writing when they are dismissed. The notices will include a statement that registration for the next semester (excluding winter or summer terms) will be canceled.

6. Normally, a student dismissed for academic reasons must wait out one semester (fall or spring) before reinstatement. Exceptions will be determined by the Faculty Petition Board.

**Application for Academic Reinstatement:**

1. Students who have been dismissed may apply to the Faculty Petition Board for reinstatement on the grounds of mitigating circumstances, such as (i) demonstrated progress toward a degree by successful completion of 24 degree-applicable credits in the preceding year, (ii) continuing improvement in the cumulative grade point average, and (iii) progress in general education and major requirements.

2. The application for reinstatement must include a written statement explaining the circumstances leading to dismissal and a proposed plan to remedy those circumstances. Students are encouraged to consult with their academic advisors prior to submitting their applications to the Faculty Petition Board.

3. Applications for reinstatement can be obtained from the Reenrollment Office in the Office of Undergraduate Admissions, which is responsible for administering the reinstatement process in coordination with the Faculty Petition Board.
Faculty Petition Board:

1. The Reenrollment Office is responsible for submitting the reinstatement applications for review and decision by the Faculty Petition Board, which is comprised of tenured faculty appointed by the Senior Vice President for Academic Affairs and Provost. The Board is the sole arbiter of reinstatement applications.

2. The Faculty Petition Board has the discretion to establish the terms for reinstatement, including the requirements for achieving academic improvement and developing an academic plan for success.

3. The Reenrollment Office will forward the Board’s decision to students at their permanent addresses.

Dismissal of Delinquent Students:

The university reserves the right to request at any time the withdrawal of a student who cannot or does not maintain the required standard of scholarship, or whose continuance in the university would be detrimental to his or her health, or the health of others, or whose conduct is not satisfactory to the authorities of the university. Additional information about the dismissal of delinquent students may be found in the Code of Student Conduct, Appendix C, in Chapter 10.

Attendance and Assessment/Examinations

Attendance

1. The university expects each student to take full responsibility for his or her academic work and academic progress. The student, to progress satisfactorily, must meet all of the requirements of each course for which he or she is registered. Students are expected to attend classes regularly, for consistent attendance offers the most effective opportunity open to all students to gain command of the concepts and materials of their courses of study. Except as provided below, absences will not be used in the computation of grades, and the recording of student absences will not be required of the faculty.

2. It is the policy of the university to excuse the absences of students that result from the following causes: illness of the student, or illness of a dependent as defined by Board of Regents policy on family and medical leave; religious observance (where the nature of the observance prevents the student from being present during the class period); participation in university activities at the request of university authorities; and compelling circumstance beyond the student’s control. Students claiming excused absence must apply in writing and furnish documentary support for their assertion that absence resulted from one of these causes.

3. In some courses, attendance and in-class participation are ongoing requirements and an integral part of the work of the course. In other courses, occasional in-class assessments may occur, sometimes without advance notice. It is the responsibility of the instructor to inform each class at the beginning of the semester of the nature of in-class participation expected and the effect of absences on the evaluation of the student’s work in the course.

4. Absences in courses where in-class participation is a significant part of the work of the course shall be handled by the instructor in the course in accordance with the general policy of his or her academic unit.

5. Permanent changes in the scheduling or location of classes must be approved by the chair, the director or the dean of the department, non-departmentalized school or college, as appropriate.

Assessment

1. The university provides students with excused absences the opportunity to reschedule significant assessments, except in cases where the nature of the assessment precluded the possibility of rescheduling, OR to perform a substitute assignment without penalty. An instructor is not under obligation to offer a substitute assignment or to give a student a make-up assessment unless the failure to perform was due to an excused absence, that is, due to illness (of the student or a dependent), religious observance (where the nature of the observance prevents the student from being present during the class period), participation in university activities at the request of university authorities, or compelling circumstances beyond the student’s control. Students claiming excused absence must apply in writing and furnish documentary support for their assertion that absence resulted from one of these causes.

The make-up assessment or substitute assignment must be at a time and place mutually agreeable to the instructor and student, cover only the material for which the student was originally responsible, and be at a comparable level of difficulty with the original assessment. In the event that a group of students requires the same make-up assessment or substitute assignment, one time and place may be scheduled. The make-up assessment or substitute assignment must not interfere with the student’s regularly scheduled classes or in-class final examination.

Students who have a concern regarding religious observances should see their instructors at the start of the semester. Although the university attempts to accommodate the religious beliefs of all of its members, it functions within a secular environment and is limited in the extent to which it can interrupt its normal operations. The president shall determine when it is appropriate for the campus community to restrict rescheduling examinations or other significant assessments on the dates of religious observance.
At this time, examinations or other significant assessments may not be scheduled on Rosh Hoshanah, Yom Kippur, Good Friday, or the first two days of Passover.

In cases of dispute, the student may appeal to the chair, the director or the dean of the department, non-departmentalized school or college offering the course within one week from the date of the refusal to schedule a make-up assessment. In those instances where the instructor is the chair, director or dean, the appeal shall be made to the next higher administrative officer, whose decision shall be final.

2. The student must notify his or her instructor of the reason for absence as soon as possible. Where the reason for absence from a scheduled assessment is known well in advance (for example, in cases of religious observance or participation in university activities at the request of university authorities), the student must inform the instructor by the end of the schedule adjustment period. Prior notification is especially important in connection with final examinations, since failure to reschedule a final examination before conclusion of the final examination period may result in loss of credits during the semester. Where the reason is not known well in advance (for example, in cases of illness or compelling circumstances beyond the student’s control), the student must inform the instructor as soon as the reason develops, or as soon as possible after its development.

3. Ordinarily, assessments are given during class hours in accordance with the regularly scheduled (or officially arranged) time and place of each course listed in the Schedule of Classes. No less than seven calendar days notice shall be given for assessments scheduled at other times and places. It shall be the instructor’s responsibility to ensure that the change in schedule does not interfere with any student’s regularly scheduled classes or in-class final examinations. It is the responsibility of the student to be informed concerning the dates of announced quizzes, tests, and examinations. Performance assessments may take a variety of forms and need not be classroom-based written examinations.

4. A final examination shall be given in every undergraduate course. Exceptions may be made with the written approval of the chair, the director or the dean of the department, non-departmentalized school or college, as appropriate. However, a student’s final course grade shall be based on a combination assessments that is at least the equivalent of a comprehensive final examination. No final examination or equivalent may be given or due during the last week of classes. All in-class final examinations must be held on the date and at the time listed in the official final examination schedule. Out-of-class final examination or equivalent assessments shall be due on the date and at a time listed in the official final examination schedule.

5. The chair, the director or the dean of the department, non-departmentalized school or college, as appropriate, is responsible for the adequate administration of assessments in courses under his or her jurisdiction.

6. No in-class assessment shall exceed the allotted time for a regularly scheduled class period. In the case of in-class final examinations, the time allotted shall not exceed the scheduled final examination period.

7. Each student shall be given the instructions and performance requirements for all assessments intended to require more than one-half class period in a form translatable to hard copy, unless the chair, the director or the dean of the department, non-departmentalized school or college, as appropriate, has authorized another procedure. The instructions and requirements of the assessment shall be archived in an appropriate medium in a suitable place.

8. The following rules shall govern all in-class examinations, unless the instructor for a specific course stipulates alternate rules for that course. A breach of any of the rules shall constitute disruption of class, a disciplinary offense (Code of Student Conduct, section 9.m.), or may serve as the basis of an allegation of academic dishonesty.

   a. Students arriving late for an examination may not unreasonably disrupt the examination room.

   b. Students must leave all unauthorized materials (e.g., books, notes, calculators) with the proctor before being seated.

   c. Where seating arrangements are established by proctors, student must conform to these arrangements.

   d. Students may not return to an examination room after leaving, unless permission to do so has been granted by the proctor prior to the student’s departure.

   e. Students must cease conversation prior to the passing out of examination papers and maintain silence during the entire examination period.

   f. Students must place examination papers face down on the writing desk until the examination is officially begun by the proctor.

   g. Students must keep examination papers flat on the writing desk at all times.

   h. Students at an examination must be prepared to show current University identification.

9. Each faculty member is to retain, for one full semester after a course is ended, the students’ final assessments in the appropriate medium. If a faculty member goes on leave for a semester or longer, or leaves the university, the final assessments and grade records for the course must be
left with the chair, the director or the dean of the department, non-departmentalized school or college, as appropriate.

**Statement On Classroom Climate**

The University of Maryland values the diversity of its student body and is committed to providing a classroom atmosphere that encourages the equitable participation of all students. Patterns of interaction in the classroom between the faculty member and students and among the students themselves may inadvertently communicate preconceptions about student abilities based on age, disability, ethnicity, gender, national origin, race, religion, or sexual orientation. These patterns are due in part to the differences the students themselves bring to the classroom. Classroom instructors should be particularly sensitive to being equitable in the opportunities they provide students to answer questions in class, to contribute their own ideas, and to participate fully in projects in and outside of the classroom.

Of equal importance to equity in the classroom is the need to attend to potential devaluation of students that can occur by reference to demeaning stereotypes of any group and/or overlooking the contributions of a particular group to the topic under discussion. Joking at the expense of any group creates an inhospitable environment and is inappropriate. Moreover, in providing evaluations of students, it is essential that instructors avoid distorting these evaluations with preconceived expectations about the intellectual capacities of any group.

It is the responsibility of individual faculty members to review their classroom behaviors, and those of any teaching assistants they supervise, to ensure that students are treated equitably and not discouraged or devalued based on their differences. Resources for self-evaluation and training for faculty members on classroom climate and interaction patterns are available from the Office of Human Relations.

**Transfer Credit**

*(For current University of Maryland, College Park students)*

The Office of the Registrar posts all transfer credit that would be acceptable to any of the degree programs at the University of Maryland, College Park. The dean of the college in which the student is enrolled determines which transfer credits are applicable to the student’s degree program. In general, credit from academic courses taken at institutions of higher education accredited by a regional accrediting association will transfer, provided that the course is completed with at least a grade of C (2.0) and the course is similar in content and level to work offered at College Park. The title of courses accepted for transfer credit will be noted on the student’s record; however, the grade will not. Grades from transferred courses are not included in the University of Maryland, College Park, grade point average calculation. See chapter 1 for additional information.

**Courses taken at other institutions while attending the University of Maryland, College Park**

1. **Courses taken at another institution** may not be credited toward a degree without approval in advance by the dean of the college from which the student expects a degree. The same rule applies to registration in the summer program of another institution. Permission to Enroll in Another Institution forms are available in the office of the student’s dean. This form must be submitted and approved by the college for any course which will eventually be added to the university transcript.

2. **Courses taken at other University of Maryland Institutions**

   For students who began their attendance at the University of Maryland, College Park in Fall 1989 or later, all course work taken at any University System of Maryland institution will be posted as transfer credit. For all students who attended Maryland prior to Fall 1989, courses taken at another University of Maryland Board of Regents institution (UMBC, UMAB, UMES, UMUC) prior to Fall 1989 will be included in the cumulative GPA. Courses taken at any other institution may not be credited toward a degree without advance approval. See #1 above for information.

3. **USM Concurrent Inter-Institutional Registration Program**

   University undergraduate students participating in the Concurrent Inter-Institutional Registration Program should obtain permission from their dean. Course work counts as resident credit. Students participating in this program must be enrolled full time in a degree program at University of Maryland, College Park, for the semester in which these courses are taken.

4. **Consortium of Universities of the Washington Metropolitan Area**

   Courses taken through the Consortium are considered to be resident credit. See above under Consortium and see the Schedule of Classes for information.

**Transfer Credit Center**

The Transfer Credit Center provides articulation information and assistance to students and transfer advisors. More information is available in the section on Transfer Admission in chapter 1 and on the internet at www.tce.umd.edu .

**Proficiency Examination Programs**

The University of Maryland, College Park offers new, continuing, and returning students several opportunities to earn college credit by demonstrating achievement in a subject field through examination. College Park recognizes three proficiency examination programs for credit:
Advanced Placement (AP), Departmental Proficiency Examination Program (Credit-by-Examination), and College-Level Examination Program (CLEP). Undergraduate students may earn a total of up to one-half of the credits required for their degree through examination. Usually, this is no more than 60 credits. Students are responsible for consulting with the appropriate dean or advisor about the applicability of any credits earned by examination to a specific degree program. Students should also seek assistance in determining which University of Maryland, College Park courses duplicate credits earned for an examination. **Students will not receive credit for both passing an examination and completing an equivalent course.**

**Advanced Placement (AP) Credit.** For complete information about the applicability of AP exams and the assignment of credit, please see chapter 1.

**Departmental Proficiency Examination (Credit by Examination)**

College Park Departmental Proficiency Examinations, customarily referred to as credit-by-examination, are comparable to comprehensive final examinations in a course. Although the mathematics and foreign-language departments receive the most applications for credit by examination, many departments will provide examinations for certain of their courses. Initial inquiry as to whether an examination in a specific course is available is best made at the academic department which offers the course in question.

If an examination for a course is available, the department will provide information regarding time and place, type of examination, and material which might be helpful in preparing for the examination. An undergraduate who passes a departmental proficiency examination is given credit and quality points toward graduation in the amount regularly allowed in the course, provided such credits do not duplicate credit obtained by some other means. After making arrangements with the department, apply through the Division of Letters and Sciences, 1117 Hornbake Library, 301-405-2793.

**Policies governing credit by examination:**

1. The applicant must be formally admitted to the University of Maryland, College Park. Posting of credit earned, however, will be delayed until the student is registered.

2. Departmental Proficiency Examinations may not be taken for courses in which the student has remained registered at the University of Maryland, College Park, beyond the Schedule Adjustment Period even with a transcript notation of W.

3. Departmental Proficiency Examinations may not be used to change grades, including Incompletes and Withdrawals.

4. Application for credit-by-examination is equivalent to registration for the course; however, the following conditions apply:
   a. A student may cancel the application at any time prior to completion of the examination with no entry on his/her permanent record. (Equivalent to the schedule adjustment period.)
   b. The instructor makes the results of the examination available to the student prior to formal submission of the grade. Before final submission of the grade, the student may elect not to have this grade recorded. In this case, a mark of W is recorded. (Equivalent to the drop period.)
   c. No examination may be attempted more than twice.
   d. The instructor must certify on the report of the examination submitted to the Office of the Registrar that copies of the examination questions (or identifying information in the case of standardized examinations), and the student’s answers have been filed with the chair of the department offering the course.

5. If accepted by the student (see 4b above), letter grades earned through credit-by-examination are entered on the student’s transcript, and are used in computing his/her cumulative grade point average. A student may elect to take a credit-by-examination Pass-Fail only if the credit fulfills an elective in the student’s degree program. No college, major, field of concentration, or general education program requirement may be taken under the pass-fail option. Please refer to the Pass-Fail policy under the Records section in this chapter.

**College-Level Examination Program (CLEP)**

The College-Level Examination Program (CLEP) recognizes college-level competence achieved outside the college classroom. Two types of CLEP tests are available: General Examinations, which cover the content of a broad field of study; and Subject Examinations, which cover the specific content of a college course. Credit can be earned and will be recognized by College Park for some CLEP General or Subject Examinations, provided
satisfactory scores are attained. Credits earned under CLEP are not considered residence credit, but are treated as transfer credit. CLEP exams are administered at CLEP testing centers throughout the country. The University of Maryland, College Park is a CLEP Test Center (Test Center Code: 5814). To obtain an application or additional information, contact the CLEP Administrator in the Counseling Center, Room 0106A Shoemaker Hall, (301-314-7688), or write to CLEP, CN 6600, Princeton, NJ, 08541-6600. Students who want to earn credit through CLEP must request their official score reports to be sent to the Office of Undergraduate Admission, Mitchell Building, University of Maryland, College Park, MD 20742-5235. (The University of Maryland, College Park, Score Recipient Code is 5814.)

Policies governing CLEP are as follows:

1. A student must matriculate at the university before CLEP credits are officially posted. The posting will not be done until a student has established a record.

2. Each institution of the University System of Maryland establishes standards for acceptance of CLEP exemptions and credits. Students must check with the institution to which they will transfer to learn if they will lose, maintain, or gain credit.

3. College Park will award credit for a CLEP examination
   a. provided the examination was being accepted for credit here on the date the student took the examination, and
   b. provided that the examination was not taken during a student’s final 30 credits. The final 30 hours of credit are to be taken in residence, unless prior approval has been granted by the student’s dean.

4. Credit will not be given for both completing a course and passing an examination covering substantially the same material.

5. Furthermore, credit will not be awarded for CLEP examinations if the student has previously completed more advanced courses in the same field.

6. CLEP examinations posted on transcripts from other institutions will be accepted if the examination has been approved by College Park and the scores reported are equal to or higher than those required by this institution. If the transcript from the prior institution does not carry the scores, it will be the responsibility of the student to request Educational Testing Service to forward a copy of the official report to the Office of Admissions. University awards credits for CLEP Examinations only as indicated on the chart provided in this chapter (if an examination is not listed, it is not accepted for credit at this institution).

If you have questions about the applicability of specific credit to your program, consult the list provided in this catalog or contact your Dean’s Office.

College Level Examination Program (CLEP)

<table>
<thead>
<tr>
<th>Exam Title</th>
<th>Score</th>
<th>Related Course</th>
<th>Cr</th>
<th>Maj</th>
<th>Core</th>
<th>Notes</th>
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<tr>
<td>Natural Science</td>
<td>50</td>
<td>LL Elective</td>
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<tr>
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</tr>
<tr>
<td>Social Science &amp; History</td>
<td>50</td>
<td>LL Elective</td>
<td>3</td>
<td>No</td>
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</tr>
</tbody>
</table>

| **Subject Exams**    |       |                |    |     |      |       |

Please Note:

- LL refers to courses at the lower (100 and 200) level. Any test not listed will not be accepted for credit at UMCP. Students may not receive credit both for CLEP courses and for equivalent UMCP courses or transfer courses (including Advanced Placement or International Baccalaureate). CLEP credit will be deleted in such cases. Applicable scores for a particular exam are those in effect when a student takes the exam. Contact your College Dean if you have questions.

- Certain CLEP tests may be revised during 2007-08. At the time this catalog was printed, information on the new versions of those tests was not available. Changes are possible in UMCP credit acceptance for revised CLEP exams. Contact the Testing Office for up-to-date information, 301-314-7688.

- Computer-based CLEP testing was implemented during 2003 for selected tests at selected test venues. Scoring procedures may change. The scores above apply to computer based testing. Departments will evaluate any new tests and scoring procedures as they become available. Some exams may be considered for credit on a case-by-case basis until review is complete. Contact an advisor or the Transfer Credit Center (tcinfo@umd.edu) for further information. Students who have matriculated at UMCP are encouraged to speak to their advisor about departmental or Advanced Placement exams in addition to CLEP. All matriculated students must have permission of their college advisor to take CLEP tests. Students interested in taking MATH CLEP are encouraged to speak to the math advisor on campus, 301-405-4362.

Graduation Applications

Each candidate for a degree or certificate must file a formal application with the Office of the Registrar. The deadline for application is the end of the schedule adjustment period for the semester in which the student plans to graduate, or at the end of the first week of the second summer session for August degrees.
In all cases, graduation applications must be filed at the beginning of the student’s final semester before receiving a degree. The graduation applications are available on the internet at www.testudo.umd.edu or at the Registrar’s Office, 1st floor Mitchell Building.

**Commencement Honors**

Summa cum laude, magna cum laude and cum laude are the highest commencement honors that the University bestows for sustained excellence in scholarship. They are awarded to the top 10% of all students graduating in each college over the course of a year. Summa cum laude is awarded to students with a GPA equal to the highest two percent of all college graduates over the past three terms, magna cum laude to the next highest three percent, and cum laude to the following five percent. To be eligible for this recognition, at least 60 semester hours must be earned at the university or at a program in which credit earned is counted as University of Maryland, College Park, resident credit (contact the Office of the Registrar to determine program eligibility). No more than 6 credits taken pass/fail or satisfactory/fail shall count toward the 60-hour minimum. No student with a grade-point average of less than 3.3 will be considered for a commencement honor. Because grades for a term generally are officially recorded after the term’s graduation day, computation of the student’s GPA will not include grades for courses taken during the student’s final semester at the university. However, the hours taken during that semester will apply toward the 60-hour requirement.

**Election to Phi Beta Kappa**

Organized in 1776, Phi Beta Kappa is the oldest and most widely respected academic honorary society in the United States. Invitation to membership is based on outstanding scholastic achievement in studies of the liberal arts and sciences. Student members are chosen entirely on the basis of academic excellence; neither extracurricular leadership nor service to the community is considered. Election is held twice a year, once in the fall and once in the spring semester.

The process for election to Phi Beta Kappa involves a review in November for those who graduated the previous August or those who will graduate in December, and a review in March for those graduating in May. A number of qualifying juniors are also considered during the same semester. The review is conducted by a select committee of faculty members representing the humanities, social sciences, and natural sciences. The committee reviews transcripts of all juniors and seniors with qualifying grade point averages. Whether a student qualifies for membership in Phi Beta Kappa depends on the quality, depth, and breadth of the student’s record in liberal education courses. The final decision for election rests with the resident faculty members of Phi Beta Kappa. There is no application procedure for election to Phi Beta Kappa (see #4 below for possible exception).

Requirements for consideration of membership in Phi Beta Kappa at the University of Maryland, College Park, campus chapter include:

1. **Grade Point Average:** For seniors a grade point average of at least 3.5 overall as well as in all liberal arts and sciences courses taken. For juniors the minimum grade point average is 3.75, and possibly higher depending on the number of candidates in a particular year.

2. **Residence:** At least 60 credit hours must be taken at the University of Maryland, College Park.

3. **Liberal Courses:** For seniors, at least 90 credit hours in courses in the liberal arts and sciences (where liberal courses are to be distinguished from professional or technical courses), at least 45 of which must be taken at the University of Maryland, College Park. For juniors, at least 75 total credit hours must be completed, at least 60 of which are in courses in the liberal arts and sciences; of these, at least 45 must be taken at the University of Maryland, College Park. Students would ordinarily be majors in one of the programs in the liberal arts and sciences. However, students with the requisite number of liberal credit hours can be admitted if they have completed at least 5 courses (15 credit hours or more) for seniors or three courses (9 credit hours or more) for juniors in a single liberal arts and sciences department/program at UMCP.

4. **Required courses:** One semester of mathematics, which must be fulfilled by college-level credit hours (including AP credit), and two college semesters of a foreign language at the elementary level, or above. The language requirement may also be satisfied by completion of four years of one language other than English at the high school level or above, or the equivalent. Students with such a foreign language background who wish to be considered for admission to Phi Beta Kappa should notify the Phi Beta Kappa office in writing and provide the appropriate documentation (such as a high school transcript) prior to the month of consideration. Credit is not allowed based on SAT scores.

5. **Distribution:** The credit hours presented for Phi Beta Kappa must contain at least three liberal arts and sciences courses (9 credit hours or more) in each of the three following areas: a) arts and humanities, b) behavioral and social sciences, c) natural sciences and mathematics (including a laboratory science course; this requirement cannot be fulfilled by AP credit). All the courses in at least two of the three required areas must be completed at UMCP and in the remaining area no more than one AP course can be used to fulfill the requirement. In general, Phi Beta Kappa will accept the CORE classification of courses but courses which CORE designates as having more than one classification may not satisfy any Phi Beta Kappa distribution requirement. Students with more challenging courses and moderately high grade point averages are preferred by the committee to those with higher grade point averages but a narrow range of courses. Minimal qualifications in more than one area may preclude election to Phi Beta Kappa. Meeting the above requirements does not guarantee election to Phi Beta Kappa. The judgment of the resident faculty members of Phi Beta Kappa on the quality, depth, and breadth of the student’s record is the deciding factor in every case. Any questions about criteria for election to Phi Beta Kappa (including equivalency examinations in foreign languages) should be directed to the Phi Beta
Academic Integrity and Student Conduct Codes

Academic Integrity

The University of Maryland is an academic community. Its fundamental purpose is the pursuit of knowledge. Like all other communities, the University can function properly only if its members adhere to clearly established goals and values. Essential to the fundamental purpose of the University is the commitment to the principles of truth and academic honesty. Accordingly, the Code of Academic Integrity is designed to ensure that the principle of academic honesty is upheld. While all members of the University share this responsibility, the Code of Academic Integrity is designed so that special responsibility for upholding the principle of academic honesty lies with the students.

The University's Code of Academic Integrity is a nationally recognized honor code, administered by a Student Honor Council. Any of the following acts, when committed by a student, shall constitute academic dishonesty:

Cheating: Intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise.

Fabrication: Intentional and unauthorized falsification or invention of any information or citation in an academic exercise.

Facilitating academic dishonesty: Intentionally or knowingly helping or attempting to help another to violate any provision of the Code of Academic Integrity.

Plagiarism: Intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise.

If it is determined that an act of academic dishonesty has occurred, a grade of XF is considered the normal sanction for undergraduate students. The grade of XF is noted on the academic transcript as failure due to academic dishonesty. Lesser or more severe sanctions may be imposed when there are circumstances to warrant such consideration. Suspension or expulsion from the University may be imposed even for a first offense. Students should consult the Code of Academic Integrity, Appendix O, for further information regarding procedures for reporting and resolving allegations of academic dishonesty.

Honor Pledge

In 2002, the University adopted an honor pledge in which students are asked to write out and sign the pledge on major assignments and exams, as designated by the instructor. The Honor Pledge is designed to encourage instructors and students to reflect upon the University's core institutional value of academic integrity. Professors who invite students to sign the Honor Pledge signify that there is an ethical component to teaching and learning. Student who write by hand and sign the Pledge affirm a sense of pride in the integrity of their work. The Pledge states:

"I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/ examination."

For more information regarding the Code of Academic Integrity, the Honor Pledge, or
the Student Honor Council please refer to www.shc.umd.edu or contact the Office of Student Conduct.

Student Conduct

The primary purpose for the imposition of discipline in the university setting is to protect the campus community. Consistent with that purpose, reasonable efforts are also made to foster the personal and social development of those students who are held accountable for violations of university regulations. Compared to disciplinary systems at many universities, University of Maryland students are given unusual authority and responsibility for management of the campus process. Membership on the student judiciary is an extraordinary educational experience, and opportunity to be of service to the community, and a personal honor.

Cases that may result in suspension or expulsion are heard by conduct boards, comprised entirely of students. In such cases, students are accorded substantial procedural protections, including an opportunity for a hearing and an appeal. Less serious cases are resolved in disciplinary conferences conducted by University staff members. Acts of violence (including any sexual assault), intimidation, disruption, or rioting; substantial theft or vandalism; fraud or forgery; use or distribution of illegal drugs; and any Code of Student Conduct violation motivated by considerations of sex, race, ethnic origin, sexual orientation or religion are forms of misconduct that most frequently result in dismissal from the University. Students accused of violating University disciplinary regulations are encouraged to discuss the allegations with their parents or guardians, legal counsel, and with appropriate University staff members.

Prohibited Conduct

Prohibited Conduct

A complete list of conduct considered prohibited as well procedures for resolving allegations of misconduct may be found in the Code of Student Conduct, available in Appendix C in Chapter 10 or through the Office of Student Conduct website at www.studentconduct.umd.edu. The following is general notice of what constitutes prohibited conduct and is subject to disciplinary action:

- Use, possession or storage of any weapon
- Causing physical harm or apprehension of harm
- Initiating or causing to be initiated a false report, warning or threat of fire, explosion or other emergency
- A criminal offense committed off-campus
- Violating the terms of any disciplinary sanction
- Misusing or damaging fire safety equipment
- Distribution or possession for purposes of distribution of any illegal drug
- Furnishing false information to the University
- Making, possessing, or using any forged, altered, or falsified instrument of identification
- Interfering with the freedom of expression of others
- Theft of property or of services; possession of stolen property
- Destroying or damaging the property of others
- Engaging in disorderly or disruptive conduct
- Failure to comply with the directions of University officials
- Use or possession of any illegal drug
- Use or possession of fireworks on University premises
- Violation of published University regulations or policies including the residence hall contract, alcohol policy, parking regulations, rioting, hazing policy, and sexual assault.

Note: Effective April 2006, students who violate the following section will be dismissed from the University:

Rioting, assault, theft, vandalism, fire-setting, or other serious misconduct related to a University-sponsored event, occurring on- or off-campus, that results in harm to
persons or property or otherwise poses a threat to the stability of the campus or
campus community may result in disciplinary action regardless of the existence, status,
or outcome of any criminal charges in a court of law related to misconduct associated
with a University-sponsored event.

For more information regarding student conduct issues, contact the Office of Student Conduct at
301-314-8204 or visit www.studentconduct.umd.edu.

Dismissal of Delinquent Students

The University reserves the right to request at any time the withdrawal of a student who cannot
or does not maintain the required standard of scholarship, or whose continuance in the
university would be detrimental to his or her health, or the health of others, or whose conduct is
not satisfactory to the authorities of the University. Additional information about the dismissal of
delinquent students may be found in the Code of Student Conduct, Appendix C, in Chapter 10.

Summary of Policies and Regulations Pertaining to Students

General Summary

Note: Descriptions of these policies are for general information only. Please refer to specific
texts for official language. Modifications may be made or other policies may be added
throughout the year. Please contact the Office of Student Conduct for additional information.

In addition to the policies reprinted or identified elsewhere (e.g., the Code of Student Conduct
and Code of Academic Integrity), students enrolled at College Park are expected to be aware of,
and to abide by, the policies summarized below. Information about where the complete texts
may be consulted follows each summary. This information was compiled and provided by the
Office of Student Conduct.

Alcoholic Beverage Policy and Procedures forbid unauthorized possession, use, or
distribution of alcoholic beverages on university property. Certain exceptions are specified.
(Information subject to change pending legislation. Originally approved by the Board of Regents,
September 26, 1969. Legal drinking age in the State of Maryland is 21 years. Reprinted in
Student Handbook.)

Policy on Amplifying Equipment restricts the hours and locations of use of certain forms of
sound amplifying equipment, provides a procedure for the authorization of otherwise restricted
uses of sound amplifying equipment, and locates responsibility for complaints with those using
the equipment. (Adopted by the University Senate, June 2, 1970. Reprinted in the Student
Handbook.)

Campus Activities Policies regulate reservation of university facilities, advertising, co-
sponsorship, cancellation and postponement, and various other matters relating to programs of
student organizations. (Published in the Event Management Handbook. For more information,
contact the Campus Reservations Office.)

Computer Use Policy defines standards for reasonable and acceptable use of University
computer resources, including electronic mail.

Policy on Demonstrations establishes guidelines for demonstrations and picketing. Stipulates
that the university will take steps necessary both to protect the right of individuals or groups to
demonstrate and to protect the freedom of speech, assembly, and movement of any individual
or group. (Adopted by the University Senate, June 2, 1970. Reprinted in the Student
Handbook.)

Examination Rules set general standards for student conduct during examinations. They are
applicable to all examinations given at the College Park campus unless contrary instructions are
provided by the faculty member administering the examination. (Printed on most university
examination books. See also chapter 4.)
Policy on Hazing and Statement on Hazing prohibits hazing, which is defined as intentionally or recklessly subjecting any person to the risk of bodily harm, or severe emotional distress, or causing or encouraging any person to commit an act that would be a violation of law or university regulations, for the purpose of initiating, promoting, fostering, or confirming any form of affiliation with a student group or organization, as defined by the Code of Student Conduct. The express or implied consent of the victim will not be a defense. For more information, contact the Office of Student Conduct.

Campus Parking Regulations cover registration, permits, fees, violations, enforcement, fines, towing and impounding, reviews, carpool programs, special events parking, emergency parking, and a number of other areas. Notably, the regulations provide that "the responsibility of finding an authorized parking space rests with the driver." Students who have 55 or fewer credits and live in the "Graham Cracker Complex" cannot register for a parking permit. (Current regulations in effect since July, 1997. An informational guide is distributed to all who register for parking. For more information, contact the Department of Transportation Services.)

Policy Pertaining to Public Displays defines standards for permissible displays, objects or structures not designed to be continuously carried or held by a demonstrator or picketer so as simultaneously to protect freedom of expression and prevent unreasonable threats to the health, safety, security, or mission of the campus. (Approved by the President, March 29, 1989. For more information, contact the Office of the Vice President for Student Affairs.)

Residence Hall Rules define prohibited conduct in and around campus residence and dining halls, buildings, and at Department of Resident Life- and/or Department of Dining Services-sponsored activities, in addition to that which falls under the Residence Halls/Dining Services Agreement, Code of Student Conduct, and federal, state and local laws. The rules also specify standard sanctions for rule violations, and provide for an adjudication process. (Reprinted in Community Living, the Residence Halls and Dining Services Handbook. For more information, contact the Department of Resident Life.)

Sexual Assault Policy offers advice and guidance for complainants, including assistance in filing criminal complaints. Defines and sets penalties for sexual assault. Specifies that sexual assault is a serious offense and the standard sanction for any sexual assault, including acquaintance rape, is expulsion.

Student Organization Registration Guidelines define student organizations, responsibilities of officers, and registration, and establish types of registration, a registration process, certain privileges of registered student organizations in good standing, sanctions which may result from registration review, and guidelines for constitutions. (For more information, or for a copy of the guidelines, contact the Office of Campus Programs.)

Declaration of Student Rights defines certain rights, including expression and inquiry, assembly, thought, conscience, and religion, privacy, due process, and equal protection. Affirms "duties and responsibilities" arising from such rights.

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Chapter 5: General Education Requirements (CORE)

- CORE Liberal Arts and Sciences Studies Program
- CORE Program Components
- CORE Program Outline
- CORE Approved Courses
- CORE Distributive Studies
- CORE Human Cultural Diversity
- CORE Advanced Studies: Capstone Option (CS)

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CORE Liberal Arts and Sciences Studies Program

General Education Program and Requirements
Office of the Associate Provost for Academic Affairs and Dean for Undergraduate Studies
Director CORE Planning and Implementation: Laura Slavin
www.ugst.umd.edu/core

In our world of rapid economic, social, and technological change, students need a strong and broadly based education. General education helps students achieve the intellectual integration and awareness they need to meet challenges in their personal, social, political, and professional lives. General education courses introduce the great ideas and controversies in human thought and experience. A solid general education provides a strong foundation for the life-long learning that makes career-change goals attainable. The breadth, perspective, and rigor provided by the CORE curriculum helps Maryland graduates become “educated people.”

Donna B. Hamilton
Associate Provost and Dean for Undergraduate Studies

BROAD OUTCOME GOALS FOR THE CORE CURRICULUM
[Approved October 6, 2005 by the University Senate CORE Committee]

After completion of CORE Program requirements students should be able to:

1. demonstrate understanding of major findings and ideas in a variety of disciplines beyond the major;

2. demonstrate understanding of methods, skills, tools and systems used in a variety of disciplines, and historical, theoretical, scientific, technological, philosophical, and ethical bases in a variety of disciplines;

3. use appropriate technologies to conduct research on and communicate about topics and questions and to access, evaluate and manage information to prepare and present their work effectively to meet academic, personal, and professional needs;

4. demonstrate critical analysis of arguments and evaluation of an argument’s major assertions, its background assumptions, the evidence used to support its assertions, and its explanatory utility;

5. understand and articulate the importance and influence of diversity within and among cultures and societies;

6. understand and apply mathematical concepts and models; and

7. communicate effectively, through written and oral communication and through other forms as appropriate.

Note: To view Learning Outcome Goals for each of the CORE categories, please visit: www.ugst.umd.edu/core/LearningOutcome.htm

To obtain a CORE Academic Planner and Record Keeper, visit your college advising office, or the Office of Undergraduate Studies (2130 Mitchell Building).

Who Completes CORE?
To earn a baccalaureate degree, all students at the University of Maryland, College Park complete both a major course of study and a campus-wide general education program. Students who enter the University May 1990 and after complete CORE requirements.

**Exceptions**: Students who enter the University with nine or more credits earned before May 1990 from the University of Maryland, College Park, or any other college may complete their general education requirements under the University Studies Program (USP), subject to certain limitations. (See "USP" and "Statute of Limitations" sections below.) Advanced Placement (AP) and other examination-based credits do not count in these determinations.

**University Studies Program (USP)**
For detailed information about USP requirements, see undergraduate catalogs dated 1992 or earlier, or contact the CORE program at 2130 Mitchell Building, 301-405-9359. Information on USP is also at: www.ugst.umd.edu/core/moreinfo/usp.html. NOTE: Students who graduate under USP requirements August 1994 and thereafter must fulfill the Advanced Studies requirements described in the Fall 1994 and subsequent catalogs. (See CORE Advanced Studies section.)

**Statute of Limitations for Previous General Education Programs (GEP, GUR, USP)**
Undergraduate students who return to the university after August 1987 no longer have the option of completing general education requirements under the older General Education Program (GEP) or the General University Requirements (GUR). Thereafter, following any substantive change in general education requirements (like the change in Fall 1990 from USP to CORE), undergraduate students returning or transferring to College Park after a separation of five continuous years must follow the requirements in effect at the time of re-entry. An exception may be granted to those students who at the time of separation had completed 60 percent of the general education requirements then in effect.

**Maryland Public Community College Students**
For the purpose of determining which general education program is required (CORE or USP), students transferring to the University of Maryland from Maryland public community colleges shall be treated as if their registration dates were concurrent with enrollment at this university.

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CORE Program Components

1. **FUNDAMENTAL STUDIES** build competence and confidence in basic writing and mathematics. Mastery of these basics enhances success both during and after college. Students begin fulfilling Fundamental Studies requirements in their first year at the University.

   www.ugst.umd.edu/core/elements/FundaSt.html

2. **DISTRIBUTIVE STUDIES** focus on breadth, including courses in the following categories: Literature; The History or Theory of the Arts; Humanities; Physical Sciences; Life Sciences; Mathematics and Formal Reasoning; Social or Political History; Behavioral and Social Sciences; and Interdisciplinary and Emerging Issues. Students generally pursue Distributive Studies in the first two years of their course work.

   www.ugst.umd.edu/core/elements/DistrSt.html

3. **ADVANCED STUDIES** allow students to enhance their degree and strengthen their critical thinking and writing skills by taking two upper-level courses outside their major after 60 credits. Students may substitute an approved CORE Capstone course in their major or a senior or honors thesis for one of these two courses.

   www.ugst.umd.edu/core/elements/AdvanSt.html

4. **HUMAN CULTURAL DIVERSITY** gives students the opportunity to examine their ideas and values in the light of various cultural, intellectual, and social contexts. Diversity courses increase knowledge of what constitutes difference and increase students' ability to learn from and appreciate people, cultures, ideas, and art forms that are often different from those they know best. Students may complete the Cultural Diversity requirement at any time before graduation.

   www.ugst.umd.edu/core/elements/Diversity.html

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CORE Program Outline

IMPORTANT NOTES about Fundamental and Distributive Studies courses:

- MUST be selected from the approved CORE course lists to count toward CORE requirements.
- MAY also be used to satisfy college, major, and/or supporting area requirements if the courses also appear on CORE Fundamental or Distributive Studies lists.
- CORE courses MAY NOT be taken on a Pass-Fail basis.

I . CORE Fundamental Studies
Three Courses (9 credits) Required

1. One course in Introduction to Writing (Must be attempted within the first 30 credits; must be passed within the first 60 credits.)

Approved CORE Introduction to Writing Courses:

(Select appropriate course based on requirements listed.)

ENGL 101 Introduction to Writing
ENGL 101A Introduction to Writing (Must be taken if student has TSWE (SAT verbal subtest) score below 33)
ENGL 101H Introduction to Writing (Honors Students)
ENGL 101X Introduction to Writing (Students for whom English is a second language may register for ENGL 101X instead of ENGL 101.)

Note: Based on scores from either the TOEFL or MEIP, students may be required to complete a program of English language instruction for non-native speakers through the MEI before being allowed to register for ENGL 101X.

Exemptions from Introduction to Writing requirement:

- AP English Language and Composition test score of 4 or 5, OR
- SAT verbal score 670 or above for scores achieved between May 1995 and February 2005. (In April 1995, the Educational Testing Service re-centered the scores on the SAT. Students whose test scores are from before April 1995 must have received a score of 600 or above to be exempt from Freshman Writing. This re-centering does not reflect a raising of the requirement for exemption, but a change in the scoring system used by ETS.
- In March 2005, ETS began the use of a new SAT test for writing. Information about exemption in connection with SAT tests taken after March 2005 will be available at www.english.umd.edu/programs/FreshmanWriting/Exemptions.html

2. One course in Mathematics (Must be attempted within the first
30 credits; must be passed within the first 60 credits.)

Approved CORE Fundamental Studies Mathematics Courses:

MATH 110 Elementary Mathematical Models; OR
MATH 112 College Algebra with Applications and Trigonometry; OR
MATH 113 College Algebra with Applications; OR
MATH 115 Pre-calculus; OR
Any 100- or 200-level MATH or STAT course except MATH 199, 210, 211, 212, 213, 214, and 274.

Exemptions from Mathematics requirement:

- SAT Math score of 600 or above; OR
- AP score of 4 or above in Calculus AB or BC; OR
- AP score of 4 or above in Statistics; OR
- CLEP Calculus Exam score of 50 or higher.

Note: If you are placed in the Developmental Math Program by the Mathematics Placement Exam, you may be offered the opportunity to combine your Developmental course with the appropriate subsequent course of MATH 110, 111, 113, or 115 and thus finish both in one semester. For further information, please see the Developmental Math Program web site: www.math.umd.edu/undergraduate/courses/fsm.shtml

3. One course in Professional Writing (taken after 60 credits).

Approved CORE Professional Writing Courses:
(Select the appropriate course based on requirements or interests listed.)

ENGL 390 Science Writing
ENGL 391 Advanced Composition
ENGL 392 Legal Writing
ENGL 393 Technical Writing
ENGL 394 Business Writing
ENGL 395 Writing for Health Professions
ENGL 398 Topics in Professional Writing

Suffixed versions of the above course numbers also fulfill the CORE Professional Writing requirement.

Exemption from Professional Writing Requirement:

- Grade of "A" in ENGL 101 (NOT ENGL 101A or ENGL 101X), except for students majoring in Engineering. All Engineering majors must take ENGL 393.

Note: No exemption from the Professional Writing requirement will be granted for achievement on SAT verbal exam. Professional Writing courses cannot be used to fulfill Advanced Studies requirements.

II. CORE Distributive Studies
Nine Courses (28 credits) Required

See the most current listings of approved CORE courses at www.ugst.umd.edu/core, or the online Schedule of Classes at www.testudo.umd.edu/ScheduleOfClassses.html

1. Humanities and the Arts-three courses required:

- One course from Literature (HL) list, and
● One course from The History or Theory of the Arts (HA) list, and
● One more course from Literature (HL), OR The History or Theory of the Arts (HA), OR Humanities (HO) lists

Note: There is no specific CORE requirement for a course from the Humanities (HO) list.

2. Mathematics and the Sciences—three courses required:

● Up to two courses from Physical Sciences (PL/PS) lists, and
● Up to two courses from Chemical and Life Sciences (LL/LS) lists, and
● Up to one course from Mathematics and Formal Reasoning (MS) list

Notes: At least one science course MUST include or be accompanied by a lab taken in the same semester (LL or PL lists only). More than one lab course may be taken. Courses must be taken from at least two of the three lists. There is no specific CORE requirement for a course from the Mathematics and Formal Reasoning (MS) list.

3. Social Sciences and History—three courses required:

● One course from Social or Political History (SH) list, and
● Two courses from Behavioral and Social Sciences (SB) list

4. Interdisciplinary and Emerging Issues (CORE CODE: IE)

OPTIONAL CORE DISTRIBUTIVE STUDIES CATEGORY EFFECTIVE BEGINNING FALL 2005

The IE category features courses that provide an interdisciplinary examination of issues (theory, questions, methods) across CORE areas, or present a significant portion of content that does not fit into any of the specific CORE areas but deals with contemporary issues, emerging disciplines, or other categories of knowledge, skills, and values that lie outside these areas.

Students may take one IE course in place of one of the following:

● The third course in the Humanities and the Arts category (one HL and one HA must be taken) OR
● The third course in the Sciences and Mathematics category (two science courses chosen from PL, PS, LL, or LS lists including at least one course from the LL or PL lists must be taken) OR
● One SB course in the Social Sciences category (one SH and one SB must be taken)

See the CORE website at www.ugst.umd.edu/core for details on how to use the IE option.

IMPORTANT NOTES ON THE IE OPTION

● IE is an optional CORE distributive studies category; Students may fulfill CORE requirements without taking an IE course.
● Only one IE course may be counted toward fulfilling CORE Distributive Studies requirements.
● Whether a student takes an IE course or not, total CORE Distributive Studies course and credit requirements remain the same: at least 9 courses and 28 credits.

III. CORE Advanced Studies
Two Courses (6 credits) Required
Students may choose their two Advanced Studies courses from a wide range of upper-level offerings outside their majors. Good choices include courses that mesh with or expand educational goals or other interests, increase knowledge, and strengthen critical thinking and writing skills.

**CORE Advanced Studies Requirement:** Two upper-level (300- or 400-level) courses outside the major taken after 60 credits. Students may substitute a CORE approved senior capstone course in their major or a senior or honors thesis for one of the two required Advanced Studies courses. Enrollment in CORE Capstone courses will be subject to departmental guidelines. The other course must be outside the major. Students completing double majors or double degrees will have fulfilled the campus Advanced Studies requirement, unless their primary major or college has additional requirements. The student's academic college determines whether or not a course is "outside the major" for the purpose of fulfilling CORE Advanced Studies.

**The following may NOT be used to fulfill Advanced Studies requirements:**

- Professional Writing courses (courses that meet the Fundamental Studies upper-level writing requirement);
- courses used to meet Distributive Studies requirements;
- internships, practica, or other experiential learning types of courses;
- courses taken on a pass/fail basis.

One independent studies course (minimum of three credits, outside the major) may be used toward Advanced Studies requirements as long as it is consistent with the rules above and the faculty member supervising the independent study agrees that it is appropriate for Advanced Studies.

*Notes: CORE Capstone courses must be taken within the major. A senior thesis (minimum of 3 credits) or successful completion and defense of an honors thesis in either the General Honors or a Departmental Honors Program (minimum of 3 credits) counts as CORE Capstone credit.*

**IV. CORE Human Cultural Diversity**

One Course (3 credits) Required

See the most current listings of approved CORE courses at [www.ugst.umd.edu/core](http://www.ugst.umd.edu/core), or the online Schedule of Classes at [www.testudo.umd.edu/ScheduleOfClasses.html](http://www.testudo.umd.edu/ScheduleOfClasses.html).

Cultural Diversity courses focus primarily on: (a) the history, status, treatment, or accomplishment of women or minority groups and subcultures; (b) non-Western culture, or (c) concepts and implications of diversity.

*Note: A number of CORE Human Cultural Diversity courses also satisfy CORE Distributive Studies, Advanced Studies, or a college, major, and/or supporting area requirement.*

**Study Abroad and Satisfying Core Requirements**

Students may use study abroad to earn credit toward University of Maryland CORE Distributive and/or Advanced Studies requirements. All students considering study abroad must meet with a Study Abroad Advisor and complete the Permission to Study Abroad form (available at the Study Abroad Office). The Study Abroad Office determines if the course work will be completed through an accredited academic program and be eligible for transfer credit. Upon approval, the number of credits will be determined for each course. How the courses will apply to a student’s graduation requirements will be determined by the student’s advising college. CORE Distributive Studies equivalencies (if applicable) must be shown clearly on the Study Abroad form with approvals from the UM academic departments which offer similar courses. CORE Advanced Studies criteria also apply to Study Abroad courses students wish to count toward CORE Advanced Studies. Some college/departmental guidelines and restrictions may apply.

Participation in a study abroad program with the successful completion and transfer of at least 9 credits abroad automatically waives a student’s CORE Human Cultural Diversity requirement.

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Approved Courses for the CORE Program

Notes about the lists:
Please refer to the program description above for the requirements in each CORE Category.

1. Course lists were current as of 4/17/07. Courses are added and deleted over time. A selection of the approved courses is offered each semester. Lists of approved CORE courses at www.ugst.umd.edu/core, or the online Schedule of Classes at www.testudo.umd.edu/ScheduleOfClasses.html include new additions.

2. Some courses are approved for CORE for one semester only. This list offers special opportunities and changes each semester. These courses are often added after the Schedule goes to press. See the online resources in note 1. above for the most current lists.

3. Course numbers and titles change from time to time. See the online resources noted above for the most current lists.

4. In a particular semester, courses may be cross-listed or shared by more than one department and may appear under more than one course number. If cross-listed or shared courses are approved for CORE, this information will be available in the online listings. Frequent instances include courses in AASP, AAST, AMST, CMLT, JWST, LGBT, and WMST.

5. Honors (HONR) courses are not included in the catalog lists. For information about HONR courses that are approved for CORE, please refer to the online resources noted above. Other resources include the current "The University Honors Program Information and Course Description Booklet" and the University Honors Program website: www.honors.umd.edu

6. For information about CORE Fundamental Studies courses, please see the Fundamental Studies section above.
CORE Distributive Studies

In the following CORE Distributive Studies list, course courses noted "(D)" also meet the CORE Diversity Requirement.

- CORE Dist. Studies Humanities & the Arts: Literature (HL)
- CORE Dist. Studies Humanities & the Arts: The History or Theory of the Arts (HA)
- CORE Dist. Studies Humanities & the Arts: Humanities (HO)
- CORE Dist. Studies Sciences & Math Lab Courses (PL and LL)
- CORE Dist. Studies Sciences & Math Non-Lab Courses (PS and LS)
- CORE Dist. Studies Sciences & Math: Math & Formal Reasoning (MS)
- CORE Dist. Studies Social Sciences & History: Social or Political Hist. (SH)
- CORE Dist. Studies Social Sciences & History: Behav. & Social Sci. (SB)
- CORE Dist. Studies Interdisciplinary & Emerging Issues (IE)

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CORE Human Cultural Diversity
CORE Advanced Studies: Capstone Option (CS)
The Colleges and Schools
Departments, Majors, and Programs
Approved Courses
University of Maryland, College Park and University of Maryland Administrators and Faculty
Appendices
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AASP 298L</td>
<td>Intro. to African-American Literature (also as ENGL 234) (D)</td>
</tr>
<tr>
<td>AAST 233</td>
<td>Intro. to Asian American Literature (also as ENGL 233) (D)</td>
</tr>
<tr>
<td>CHIN 213</td>
<td>Chinese Poetry into English: An Introduction (D)</td>
</tr>
<tr>
<td>CLAS 100</td>
<td>Classical Foundations</td>
</tr>
<tr>
<td>CLAS 170</td>
<td>Greek and Roman Mythology</td>
</tr>
<tr>
<td>CLAS 270</td>
<td>Greek Literature in Translation</td>
</tr>
<tr>
<td>CLAS 271</td>
<td>Roman Literature in Translation</td>
</tr>
<tr>
<td>CMLT 235</td>
<td>Intro. to Literatures of the African Diaspora (also as ENGL 235) (D)</td>
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<tr>
<td>CMLT 270</td>
<td>Global Literature &amp; Social Change (D)</td>
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<td>CMLT 275</td>
<td>World Literature by Women (also as WMST 275) (D)</td>
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<tr>
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<td>Western World Literature: Homer to the Renaissance</td>
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<td>Western World Literature: Renaissance to the Present</td>
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<td>ENGL 205</td>
<td>Introduction to Shakespeare</td>
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<td>ENGL 210</td>
<td>Themes in Early English Literature: Love, Adventure, and Identity</td>
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<td>ENGL 211</td>
<td>English Literature: Beginnings to 1800</td>
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<td>English Literature: 1800 to the Present</td>
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<td>ENGL 221</td>
<td>American Literature: Beginning to 1865</td>
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<td>American Literature: 1865 to the Present</td>
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<td>The Hebrew Bible: Poetry and Prophecy (also as JWST 263)</td>
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<td>Introduction to Lesbian, Gay, and Bisexual Literatures (also as LGBT 265) (D)</td>
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<td>Mythologies: An Introduction</td>
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<td>ENGL 278K</td>
<td>The American Short Story in Its World Context</td>
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<td>ENGL 278W</td>
<td>Literature in a Wired World</td>
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<td>Masterworks of French Literature in Translation</td>
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<td>FREN 241</td>
<td>Women Writers of French Expression in Translation (also as WMST 241) (D)</td>
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<tr>
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<td>GERM 281</td>
<td>Women in German Literature and Society (also as WMST 281) (D)</td>
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<td>GERM 282</td>
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<td>GERM 283</td>
<td>Viking Culture and Civilization</td>
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<tr>
<td>GERM 285</td>
<td>German Film and Literature</td>
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<td>GERM 287</td>
<td>Ancient Celtic Culture and Civilization</td>
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<td>ITAL 241</td>
<td>Modern Italian Women Writers - in Translation</td>
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<tr>
<td>ITAL 251</td>
<td>Aspects of Contemporary Italian Literature and Culture</td>
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<td>JAPN 217</td>
<td>Japanese Literature in the Age of the Samurai (D)</td>
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<td>JAPN 298A</td>
<td>Modern Japanese Fiction and Film in Translation</td>
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<td>The Hebrew Bible: Narrative (also as ENGL 262)</td>
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<tr>
<td>JWST 263</td>
<td>The Hebrew Bible: Poetry and Prophecy (also as ENGL 263)</td>
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<td>Fantasy and the Supernatural in Jewish Literature (D)</td>
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<td>Jewish Literature in Translation</td>
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<td>Introduction to Lesbian, Gay, and Bisexual Literatures (also as ENGL 265) (D)</td>
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<tr>
<td>PORT 228A</td>
<td>Latin American Literature and Society: An Interdisciplinary Approach to the Amazon Ecosystem (also as SPAN 228A) (D)</td>
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<tr>
<td>PORT 231</td>
<td>Introduction to the Literatures of the Portuguese Language (D)</td>
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<td>RUSS 221</td>
<td>Masterworks of Russian Literature I</td>
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<td>Masterworks of Russian Literature II</td>
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<td>Cultural Difference in Contemporary Latin American Culture (D)</td>
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<td>SPAN 228A</td>
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<td>WMST 241</td>
<td>Women Writers of French Expression in Translation (also as FREN 241) (D)</td>
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<td>WMST 255</td>
<td>Introduction to Literature by Women (also as ENGL 250) (D)</td>
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<tr>
<td>WMST 275</td>
<td>World Literature by Women (also as CMLT 275) (D)</td>
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<td>AMST 205</td>
<td>Material Aspects of American Life</td>
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<tr>
<td>ARCH 170</td>
<td>Introduction to the Built Environment</td>
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<tr>
<td>ARCH 223</td>
<td>History of Non-Western Architecture (D)</td>
</tr>
<tr>
<td>ARCH 224</td>
<td>The Ancient Roman City Pompeii and Beyond</td>
</tr>
<tr>
<td>ARHU 298B</td>
<td>In Concert</td>
</tr>
<tr>
<td>ARHU 298L</td>
<td>The Creative Process in Dance (D)</td>
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<tr>
<td>ARTH 100</td>
<td>Introduction to Art</td>
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<tr>
<td>ARTH 200</td>
<td>Art of the Western World to 1300</td>
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<td>ARTH 201</td>
<td>Art of the Western World after 1300</td>
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<tr>
<td>ARTH 250</td>
<td>Art and Archaeology of Ancient America (D)</td>
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<tr>
<td>ARTH 275</td>
<td>Art and Archaeology of Africa (D)</td>
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<td>ARTH 290</td>
<td>Art of Asia (D)</td>
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<tr>
<td>ARTT 150</td>
<td>Introduction to Art Theory</td>
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<tr>
<td>CMLT 214</td>
<td>Film, Form, and Culture</td>
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<td>CMLT 280</td>
<td>Film Art in a Global Society (D)</td>
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<td>Introduction to Dance (D)</td>
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<tr>
<td>ENGL 245</td>
<td>Film and the Narrative Tradition</td>
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<td>FREN 298</td>
<td>Aspects of French Civilization</td>
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<td>MUET 200</td>
<td>World Popular Musics and Identity (D)</td>
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<td>MUET 210</td>
<td>The Impact of Music on Life (D)</td>
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<td>Selected Musical Cultures of the World (D)</td>
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<td>MUSC 130</td>
<td>Survey of Music Literature</td>
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<td>MUSC 140</td>
<td>Music Fundamentals 1</td>
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<td>MUSC 205</td>
<td>History of Rock Music, 1950 - Present</td>
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<td>PHIL 230</td>
<td>Philosophy of the Arts</td>
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<tr>
<td>RUSS 298K</td>
<td>Soviet Film: Propaganda, Myth, Modernism</td>
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<tr>
<td>THET 110</td>
<td>Introduction to the Theatre</td>
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<tr>
<td>THET 195</td>
<td>Gender and Performance (D)</td>
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<tr>
<td>THET 240</td>
<td>African Americans in Film and Theatre (D)</td>
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<tr>
<td>THET 290</td>
<td>American Theatre 1750-1890</td>
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<td>THET 291</td>
<td>American Theatre 1890-Present</td>
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<td>THET 293</td>
<td>Black Theatre and Performance I (D)</td>
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<td>THET 294</td>
<td>Black Theatre and Performance II (D)</td>
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<tr>
<td>WMST 250</td>
<td>Introduction to Women's Studies: Women, Art, and Culture (D)</td>
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<tr>
<td>WRLD 125</td>
<td>The Creative Drive: Creativity in Music, Architecture, and Science</td>
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### Humanities and the Arts - Humanities (CORE CODE: HO)

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<td>African Civilization</td>
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<td>AMST 201</td>
<td>Introduction to American Studies</td>
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<td>AMST 203</td>
<td>Popular Culture in America</td>
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<td>AMST 204</td>
<td>Film and American Culture Studies</td>
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<tr>
<td>AMST 211</td>
<td>Technology and American Culture</td>
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<tr>
<td>ARHU 205</td>
<td>Second Year Seminar in Honors Humanities</td>
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<tr>
<td>ARHU 298A</td>
<td>Medieval and Renaissance Humanism, Humanists, and Their World</td>
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<tr>
<td>CHIN 202</td>
<td>Intermediate Written Chinese I</td>
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<tr>
<td>CHIN 204</td>
<td>Intermediate Written Chinese II</td>
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<tr>
<td>CHIN 205</td>
<td>Intermediate Chinese - Accelerated Track</td>
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<tr>
<td>CMLT 291</td>
<td>International Perspectives on Lesbian and Gay Studies (also as LGBT 291) (D)</td>
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<tr>
<td>COMM 200</td>
<td>Critical Thinking and Speaking</td>
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<td>EDPL 210</td>
<td>Historical and Philosophical Perspectives on Education</td>
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<td>Introduction to the English Language</td>
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<td>ENGL 282</td>
<td>Introduction to Rhetorical Theory</td>
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<td>Intermediate French</td>
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<td>FREN 203</td>
<td>Intensive Intermediate French</td>
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<td>FREN 204</td>
<td>French Grammar and Composition</td>
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<td>FREN 211</td>
<td>French Reading and Conversation</td>
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<td>GERM 201</td>
<td>Intermediate German I</td>
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<td>German-American Cultural Contrast</td>
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<td>The Everyday &amp; the &quot;American&quot; Built Environment (D)</td>
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<td>HIST 110</td>
<td>The Ancient World</td>
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<td>HIST 112</td>
<td>The Rise of the West: 1500-1789</td>
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<td>HIST 216</td>
<td>Introduction to the Study of World Religions (D)</td>
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<td>ITAL 204</td>
<td>Review Grammar and Composition</td>
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<tr>
<td>ITAL 261</td>
<td>Cuisine, Culture, and Society in Italy Yesterday and Today (Taught in Italian)</td>
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<td>ITAL 271</td>
<td>The Italian-American Experience</td>
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<td>JWST 219A</td>
<td>The World of the Dead Sea Scrolls</td>
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<td>Fundamental Concepts of Judaism (also as PHIL 234)</td>
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<td>KORA 212</td>
<td>Reading for Speakers of Korean II</td>
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<td>LARC 160</td>
<td>Introduction to Landscape Architecture</td>
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<td>LASC 234</td>
<td>Issues in Latin American Studies I (also as PORT 234 and SPAN 234) (D)</td>
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### CORE Advanced Studies: Capstone Option (CS)

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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>LASC 235</td>
<td>Issues in Latin American Studies II (also as PORT 235 and SPAN 235) (D)</td>
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<td>LATN 201</td>
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<td>International Perspectives on Lesbian and Gay Studies (also as CMLT 291) (D)</td>
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<td>LING 210</td>
<td>Structure of American Sign Language (D)</td>
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<td>LING 240</td>
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<td>PHIL 100</td>
<td>Introduction to Philosophy</td>
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<td>PHIL 140</td>
<td>Contemporary Moral Issues</td>
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<td>PHIL 233</td>
<td>Philosophy in Literature</td>
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<td>PHIL 234</td>
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<td>PHIL 256</td>
<td>Philosophy of Biology I</td>
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<td>RUSS 281</td>
<td>Russian Language and Pre-Revolutionary Culture</td>
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<td>RUSS 282</td>
<td>Contemporary Russian Culture (D)</td>
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<td>RUSS 298M</td>
<td>Building a New Reality: Russian Cinema at the End of the 20th Century (D)</td>
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<td>SPAN 204</td>
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<td>SPAN 223</td>
<td>U.S. Latino Culture (D)</td>
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<td>SPAN 225</td>
<td>Cultures of the Contact Zones: Seville, Al-Andalus and the Atlantic World (D)</td>
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<td>Issues in Latin American Studies I (also as LASC 234 and PORT 234) (D)</td>
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<td>ASTR 121</td>
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<td>PHYS 106 &amp; 107</td>
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<td>PHYS 270 &amp; 271</td>
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<td>BSCI 105</td>
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### CORE Advanced Studies: Capstone Option (CS)

### The Colleges and Schools

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<td>BSCI 106</td>
<td>Principles of Biology II</td>
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<tr>
<td>BSCI 122</td>
<td>Microbes and Society</td>
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<tr>
<td>BSCI 124 &amp; 125</td>
<td>Plant Biology for Non-Science Students and Plant Biology Laboratory (BOTH COURSES MUST BE TAKEN IN THE SAME SEMESTER)</td>
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<tr>
<td>BSCI 201</td>
<td>Human Anatomy and Physiology I</td>
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<td>BSCI 223</td>
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<td>BSCI 224</td>
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<td>CHEM 104</td>
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<td>NRSC 200</td>
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<td>Causes and Implications of Global Change (also as GEOG/GEOL)</td>
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<tr>
<td>AOSC 200</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>ASTR 100</td>
<td>Introduction to Astronomy (only if taken Fall 1993 or later)</td>
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<tr>
<td>ASTR 120</td>
<td>Introductory Astrophysics - Solar System</td>
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<tr>
<td>ASTR 220</td>
<td>Collisions in Space</td>
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<td>ENES 100</td>
<td>Intro. to Engineering Design</td>
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<td>ENSP 101</td>
<td>Introduction to Environmental Science</td>
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<td>Causes and Implications of Global Change (also as GEOL/AOSC)</td>
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<td>Coastal Environments</td>
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<td>Dinosaurs: A Natural History</td>
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<td>Environmental Geology</td>
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<td>Causes and Implications of Global Change (also as GEOG/AOSC)</td>
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<td>GEOL 214</td>
<td>Global Energy: Systems and Resources</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>Contemporary Physics</td>
</tr>
<tr>
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<tr>
<td>PHYS 111</td>
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<tr>
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<tr>
<td>BSCI 120</td>
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<td>BSCI 205</td>
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<tr>
<td>BSCI 206</td>
<td>Chesapeake: A Living Resource</td>
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<tr>
<td>ENST 100</td>
<td>International Crop Production - Issues and Challenges in the 21st Century (formerly NRSC 100)</td>
</tr>
<tr>
<td>ENST 105</td>
<td>Soil and Environmental Quality (formerly NRSC 105)</td>
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<tr>
<td>KNES 260</td>
<td>Science of Physical Activity and Cardiovascular Health</td>
</tr>
<tr>
<td>NFSC 100</td>
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<td>Maps and Map Use</td>
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<td>MATH 111</td>
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<td>MATH 141</td>
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<tr>
<td>MATH 220</td>
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<td>PHIL 209P</td>
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<td>STAT 100</td>
<td>Elementary Statistics and Probability</td>
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All MS courses are non-lab and non-science courses. They do not fulfill the CORE Requirement for at least two science courses.
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<td>Introduction to African American Studies (D)</td>
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<tr>
<td>AASP 202</td>
<td>Black Culture in the United States (D)</td>
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<tr>
<td>AAST 201</td>
<td>Asian American History* (also as HIST 219M) (D)</td>
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<td>AAST 222</td>
<td>Immigration and Ethnicity in the United States (also as HIST 222) (D)</td>
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<td>AAST 298M</td>
<td>South Asian American Experiences (also as HIST 219D) (D)</td>
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<tr>
<td>ENGL 260</td>
<td>Introduction to Folklore</td>
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<tr>
<td>HIST 106</td>
<td>American Jewish Experience (also as JWST 141)</td>
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<tr>
<td>HIST 111</td>
<td>The Medieval World</td>
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<td>HIST 113</td>
<td>Modern Europe: 1789 - Present</td>
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<tr>
<td>HIST 120</td>
<td>Islamic Civilization (D)</td>
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<td>HIST 122</td>
<td>African Civilizations to 1800</td>
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<td>HIST 123</td>
<td>Sub-Saharan Africa since 1800 (also as AASP) (D)</td>
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<td>HIST 210</td>
<td>Women in America to 1880 (also as WMST 210) (D)</td>
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<tr>
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<td>Women in America since 1880 (also as WMST 211) (D)</td>
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<td>HIST 219D</td>
<td>South Asian American Experiences (also as AAST 298M) (D)</td>
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<td>HIST 219M</td>
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<td>Introduction to African American Studies (D)</td>
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<td>South Asian American Experiences (also as HIST 219D) (D)</td>
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<td>Public Policy and the Black Community</td>
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<tr>
<td>AAST 200</td>
<td>Introduction to Asian American Studies (also as AMST 298C)</td>
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<tr>
<td>AMST 207</td>
<td>Contemporary American Cultures (D)</td>
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<tr>
<td>AMST 260</td>
<td>American Culture in the Information Age</td>
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<tr>
<td>AMST 298C</td>
<td>Introduction to Asian American Studies (also as AAST 200)</td>
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<td>ANTH 240</td>
<td>Introduction to Archaeology (D)</td>
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<td>ANTH 260</td>
<td>Introduction to Sociocultural Anthropology and Linguistics (D)</td>
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<td>ANTH 262</td>
<td>Culture and Environment (D)</td>
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<td>AREC 240</td>
<td>Introduction to Economics and the Environment</td>
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<tr>
<td>AREC 250</td>
<td>Elements of Agricultural and Resource Economics</td>
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<td>CCJS 100</td>
<td>Introduction to Criminal Justice</td>
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<td>CCJS 105</td>
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<td>CPSP 227</td>
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<td>Principles of Micro-Economics</td>
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<td>Principles of Macro-Economics</td>
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<td>EDCP 220</td>
<td>Introduction to Human Diversity in Social Institutions (D)</td>
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<td>GEOG 100</td>
<td>Introduction to Geography</td>
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<td>GEOG 130</td>
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<td>GVPT 200</td>
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<td>SOCY 241</td>
<td>Inequality in American Society (D)</td>
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<tr>
<td>URS 100</td>
<td>Challenge of the Cities</td>
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For complete details, please visit [University of Maryland Undergraduate Catalog 2007-2008](http://www.umd.edu/catalog/index.cfm/show/content.section/c/67/ss/1162/s/1174)
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WMST 200 Introduction to Women's Studies: Women and Society (D)
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See CORE website at [www.ugst.umd.edu/core](http://www.ugst.umd.edu/core) for how to use the IE option.

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<td>PHIL 261</td>
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<td>PHIL 280</td>
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<td>The Power of Water: Politics, Technology, and Development of the Mekong River</td>
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Studies Social
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Please refer to the program description above for the Diversity Requirements. In the following CORE diversity list, courses noted with an asterisk *** also meet CORE Distributive Studies requirements. Diversity courses that are also approved for CORE Distributive Studies may be counted for both.

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<td>AASP 202</td>
<td>Black Culture in the United States*</td>
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<tr>
<td>AASP 298L</td>
<td>Introduction to African-American Literature*</td>
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<tr>
<td>AAST 200</td>
<td>Introduction to Asian American Studies*</td>
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<tr>
<td>AAST 201</td>
<td>Asian American History*</td>
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<td>AAST 222</td>
<td>Immigration and Ethnicity in the United States*</td>
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<td>AAST 233</td>
<td>Introduction to Asian American Literature*</td>
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<td>AAST 298M</td>
<td>South Asian American Experiences*</td>
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<tr>
<td>AMST 207</td>
<td>Contemporary American Culture*</td>
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<td>Diversity in American Culture</td>
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<td>AMST 298C</td>
<td>Asian American Experience*</td>
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<td>ANTH 220</td>
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<td>ANTH 240</td>
<td>Introduction to Archaeology*</td>
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<td>ANTH 260</td>
<td>Introduction to Sociocultural Anthropology and Linguistics*</td>
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<td>ANTH 262</td>
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<tr>
<td>ARCH 223</td>
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<td>ARHU 298L</td>
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<td>ARTH 250</td>
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<td>CMLT 280</td>
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<td>CMLT 291</td>
<td>International Perspectives on Lesbian and Gay Studies*</td>
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<td>ENGL 250</td>
<td>Introduction to Literature by Women* (also as WMST 255)</td>
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</tbody>
</table>
Chapter 6: The Colleges and Schools

- COLLEGE OF AGRICULTURE AND NATURAL RESOURCES (AGNR)
- SCHOOL OF ARCHITECTURE, PLANNING, AND PRESERVATION (ARCH)
- COLLEGE OF ARTS AND HUMANITIES (ARHU)
- COLLEGE OF BEHAVIORAL AND SOCIAL SCIENCES (BSOS)
- THE ROBERT H. SMITH SCHOOL OF BUSINESS (BMGT)
- COLLEGE OF CHEMICAL & LIFE SCIENCES (CLFS)
- COLLEGE OF COMPUTER, MATHEMATICAL, AND PHYSICAL SCIENCES (CMPS)
- COLLEGE OF EDUCATION (EDUC)
- A.JAMES CLARK SCHOOL OF ENGINEERING (ENGR)
- COLLEGE OF HEALTH AND HUMAN PERFORMANCE (HLHP)
- PHILIP MERRILL COLLEGE OF JOURNALISM
- COLLEGE OF INFORMATION STUDIES (CLIS)
- SCHOOL OF PUBLIC POLICY (PUAF)
- OFFICE OF UNDERGRADUATE STUDIES

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STUDIES
Departments, Majors, and Programs
Approved Courses
University of Maryland, College Park and University of Maryland Administrators and Faculty
Appendices
COLLEGE OF AGRICULTURE AND NATURAL RESOURCES (AGNR)

0107 Symons Hall, 301-405-7761
www.agnr.umd.edu
eweiss@deans.umd.edu
Dean: Cheng-i Wei
Associate Dean(s): Leon H. Slaughter
Assistant Dean(s): John A. Doerr

The College of Agriculture and Natural Resources offers a variety of academic programs that apply science, management, design, and engineering to improve the world in which we live and work. Feeding the world population, developing scientifically-based land use practices and policies, understanding animal and plant biology, improving nutrition and its effects on human health, and profitably managing farms and agribusinesses in harmony with ecosystems are all vital concerns of the College. Integrating the use and protection of natural resources in the production of food and nursery crops is a challenge facing students.

In addition to course work, undergraduates have opportunities to work closely with faculty in state-of-the-art facilities including new biological resources engineering, animal sciences, veterinary medicine, and plant sciences buildings. The College also serves as the academic home of the Maryland Campus of the Virginia-Maryland Regional College of Veterinary Medicine. Nearby resources such as the U.S. Department of Agriculture's Beltsville Agricultural National Research Center, the National Institutes of Health, the Food and Drug Administration, the Smithsonian Institution and the National Zoo, Maryland's Departments of Agriculture and Natural Resources, and the Patuxent Wildlife Research Center enhance teaching, research, internship, and career opportunities for students. Field study courses offered in Brazil, Belize, Egypt, England, and Costa Rica, and study-abroad programs such as those in Russia and Angers, France expose students to other cultures and environments. Learning opportunities are also strengthened through student involvement in such co-curricular activities as the College Honors Program, career programs, leadership workshops, and student clubs.

Special Advantages and Facilities

Educational opportunities in the College of Agriculture and Natural Resources are enhanced by the proximity of several research units of the federal government. Teaching and research activities in the College are conducted with the cooperation of scientists and professional people in government positions. Of particular interest are the National Agricultural Research Center at Beltsville, the National Agricultural Library, the National Arboretum, and the Food and Drug Administration.

Instruction in the basic biological, social sciences, and landscape design is conducted in well-designed classrooms and laboratories. The application of basic principles to practical situations is demonstrated for the student in numerous ways. In addition to on-campus facilities, several operating education and research facilities are located throughout Maryland. Horticultural and agronomic crops, turf, beef, horse, dairy cattle, and poultry are maintained under practical and research conditions also used for environmental studies.

Admission Requirements

It is recommended that students entering the College of Agriculture and Natural Resources have completed a high school preparatory course that includes: English, 4 units; mathematics, 3 units; biological and physical sciences, 3 units; and history or social sciences, 2 units. The Landscape Architecture major is a limited enrollment program (LEP). See chapter 1 for general
limited-enrollment program admission policies.

**Undergraduate Degree Requirements/Degree Options**

Departments in the College of Agriculture and Natural Resources offer the following programs of study:

**Agricultural and Resource Economics**: Business Management; Agricultural Science; Environmental and Resource Policy; Food Production; International Agriculture; and Political Process.

**Animal Sciences**: Animal Care and Management; Equine Studies; Laboratory Animal Care; Science/Preprofessional; and Animal Biotechnology

**Combined Agriculture/Veterinary Medicine**


**Environmental Science and Technology**: Natural Resources Management, Natural Resource Sciences: Conservation of Soil, Water and Environment

**Plant Sciences**: Horticulture and Crop Production, Landscape Management, Plant Sciences, Turf and Golf Course Management, and Urban Forestry

**General Agricultural Sciences**

**Landscape Architecture**

**Natural Resources Management**: Environmental Education/Park Management; Land and Water Resource Management; and Plant and Wildlife Resource Management

**Nutrition and Food Science**: Dietetics; Food Science; and Nutritional Science

Students graduating from the College must complete at least 120 credits with a grade point average of 2.0 in all courses applicable toward the degree. Requirements of the major and supporting areas are listed under individual program headings in chapter 7.

**Advising**

Each student in the College is assigned a faculty advisor to assist in selecting courses, accessing academic enrichment opportunities, and making strategic career decisions. Advisors normally work with a limited number of students and are able to give individual guidance. Both freshmen entering with a definite choice of curriculum and transfer students are assigned to departmental advisors for counsel and planning of all academic programs as soon as possible. Students have access to additional advising through their home department's undergraduate program office and through the college's student services office. AGNR Peer Mentors, academically talented and university-engaged upperclassmen, provide an additional advising resources for students in the college.

Specifics of advisor assignment are available in the undergraduate office of each department.

**Departments and Centers**

Undergraduate credit instruction is offered by the Departments of Animal and Avian Sciences (ANSC), Agricultural and Resource Economics (AREC), Environmental Science and Technology (ENST), Nutrition and Food Science (NFSC), and Plant Science and Landscape Architecture (PSLA). An additional major, Environmental Science and Policy (ENSP) is based and administered within the College of Agriculture and Natural Resources; it offers specializations advised within this college as well the colleges of Behavioral and Social Sciences, Chemical and
Life Sciences, and Computer, Mathematical and Physical Sciences. Additional courses are provided through the 2-year certificate program in the Institute of Applied Agriculture.

Minors

Academic Minors provide students an opportunity to expand or complement their major by taking additional courses (15-24 credits) in a coherent field of study. Students interested in a minor should contact the undergraduate program office of the department offering the minor. Currently the following are approved minors (with the offering department in parentheses) in the college:

**Agribusiness Economics** (Agricultural and Resource Economics)

**Environmental Economics and Policy** (Agricultural and Resource Economics)

**Resource and Agricultural Policy in Economic Development** (Agricultural and Resource Economics)

**Landscape Management** (Plant Science and Landscape Architecture)

**Soil Science** (Environmental Science and Technology)

Living-Learning Programs

New for Fall 2007 in the college is **EcoHouse**, a Living-Learning program for undergraduates interested in learning about and promoting innovative, ecologically-sound lifestyles. Information is available through the Environmental Science and Policy Program and through Department of Resident Life (www.resnet.umd.edu or email to reslife@umd.edu).

The college also sponsors, through its Environmental Science and Policy Program, the Environmental Studies curriculum in College Park Scholars. Admission to College Park Scholars is a selective and by-invitation. (For further information, see Undergraduate Studies, College Park Scholars Program in Chapter 6).

Specialized Academic Programs

The Institute of Applied Agriculture offers 60-credit certificate programs designed primarily for professional development. Majors offered include Agribusiness Management, Golf Course Management, Equine Business Management, Landscape Management, Ornamental Horticulture, and Turfgrass Management. Some two-year program students continue on in regular four-year programs in the college and several of the college’s majors allow limited use of Institute courses in their programs.

Four-year degree students contemplating early admission to veterinary schools may choose the Combined Agriculture-Veterinary Medicine program. In this option, students complete basic science courses and University CORE in three years. They apply to veterinary schools in the Fall semester of the junior year, and if they are granted early admission to an accredited school of veterinary medicine, the B.S. degree is awarded after completion of the first year of vet school. Details of the curriculum are found in the Animal Sciences major elsewhere in this catalog.

College Honors Program

Students may apply for admission to the College Honors program after completing 60 credits with a minimum 3.2 GPA in a program within the College. Honors students work with a faculty mentor and must take at least 12 credits of honors courses including a senior thesis. Interested students should contact their faculty advisor.

Approved Student Societies and Professional Organizations

Student participation in professional societies, clubs, and interest groups is extensive in the
college and students find opportunity for varied expression and growth in the following organizations:

AGNR Peer Mentors, AGNR Student Ambassadors, AGNR Student Council, Alpha Zeta, Alpha Gamma Rho, Animal Husbandry Club, Animal Sciences Graduate Association, College Park Environmental Group, Collegiate 4-H, Food and Nutrition Club, Landscape Architecture Student Association, MD Student Chapter of Golf Course Superintendents Association of America, Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS), Natural Resources Management Society, Sigma Alpha, Equestrian Club, UM Food Technology Club, and Veterinary Science Club.

**Financial Assistance**

A number of scholarships are available for students enrolled in the College of Agriculture and Natural Resources. These include awards for the AGNR Alumni Association Scholarship, Arthur M. Ahalt Memorial Scholarship, Attorney General’s Scholarship, Eileen Barnett Scholarship, Beltsville Garden Club Scholarship, Bruce and Donna Berlage Scholarship, Chester F. Bletic Fund, Bowie-Crofton Garden Club Scholarship, Frank D. Brown Memorial Scholarship, Joseph Byrd Foundation Scholarship, Jonas and Joan Cash Student Award, Chapel Valley Landscape Company Honorary Scholarship, George Earle Cook, Jr. Scholarship Fund, Ernest T. Cullen Memorial Scholarship, Jaime Dannemann Scholarship, Richard F. Davis Memorial Award, Jerry V. DeBarthe Memorial Fund, William R. DeLauder Fund, Mylo S. Downey Memorial Scholarship, Robert Facchina/Johanna Foods Scholarship, James R. Ferguson Memorial Scholarship, Kenneth S. Fowler Memorial Fund, Thomas A. Fretz Agriculture and Natural Resources Scholarship, William D. Godwin Scholarship, Kevin Grant Scholarship, H. Palmer Hopkins Scholarship, Donald Leishear International Travel Scholarship, Goddard Memorial Scholarship, Manasses J. and Susanna Grove Memorial Scholarship, Maryland Greenhouse Growers Association Scholarship, John and Marjorie Moore International Agriculture and Natural Resources Student Travel Fund, James and Dessie Moxley Scholarship, Paul R. Poffenberger Scholarship Fund, Jennifer Russo Memorial Fund, the Ross and Pauline Smith Fund, J. Herbert Snyder Scholarship, Southern States Cooperative, Inc., Hiram I. Stine Memorial Scholarship, T. B. Symons Memorial Scholarship, Vansville Farmers Club Scholarship, the A.F. Vierheller Award Fund in Horticulture, Siegfried Weisberger Jr. Scholarship Fund, Theodore B. and Georgianna Miles Weiss Memorial Fund, and the Winslow Foundation Scholarship.

The College is privileged to offer additional support in the form of interest-free loans through the Catherine Brinkley Loan Fund which are available to students who are residents of Maryland and progressing in programs within the College of Agriculture and Natural Resources.

**Awards**

The Agriculture and Natural Resources Alumni Chapter provides recognition each year for the Outstanding Senior in the two-year and four-year programs.

**Research Units**

**Maryland Agricultural Experiment Station**

The Maryland Agricultural Experiment Station (MAES) supports research conducted primarily by 120 faculty scientists located within the College of Agriculture and Natural Resources. Faculty use state-of-the-art facilities such as a new Research Greenhouse Complex and Environmental Simulator, as well as 10 off-campus research locations, for research in the science, business, policy, and practice of agriculture. MAES supports research that benefits consumers and producers alike; for example, our significant focus on the environment protects valuable natural resources such as the Chesapeake Bay. Undergraduate students also benefit from mentoring by MAES-supported faculty and instructional use of MAES facilities statewide.

**Cooperative Extension Service**

The Maryland Cooperative Extension Service (MCES) educates citizens in the application of practical, research-based knowledge to critical issues in agricultural and agribusiness including aquaculture; natural resources and the environment; human development, nutrition, diet, and health; youth development and 4-H; and family and community leadership. The statewide
program includes more than 180 faculty and support staff located in 23 counties, the City of Baltimore, four regional centers, and the University of Maryland's College Park and Eastern Shore campuses. In addition, more than 15,000 volunteers and citizens in Maryland give generously of their time and energy.

**Student Engagement and Service Units**

**Virginia-Maryland Regional College of Veterinary Medicine, Maryland Campus**

College of Agriculture and Natural Resources  
1202 Gudelsky Veterinary Center, 301-314-6830  
[www.vetmed.vt.edu](http://www.vetmed.vt.edu)

The Virginia-Maryland Regional College of Veterinary Medicine is operated by the University of Maryland and the Virginia Polytechnic Institute and State University. Each year, 30 Maryland and 50 Virginia residents comprise the entering class of a four-year program leading to a Doctor of Veterinary Medicine (DVM).

The first three years are given at Virginia Polytechnic Institute and State University in Blacksburg, Virginia. The final year of instruction is given at several locations, including the University of Maryland, College Park.

A student desiring admission to the college must complete the pre-veterinary requirements and apply for admission to the professional curriculum. Admission to this program is competitive, and open to all Maryland residents. All Maryland residents' applications are processed at the College of Veterinary Medicine, Maryland Campus, University of Maryland, College Park.

**Institute of Applied Agriculture (Two-Year Program)**

College of Agriculture and Natural Resources  
2123 Jull Hall, 301-405-4685  
E-mail: iaa@umd.edu  
[www.iaa.umd.edu](http://www.iaa.umd.edu)  
Dr. Tom Hartsock, Director

The Institute of Applied Agriculture (IAA) awards academic certificates in Agribusiness Management, Equine Business Management, General Ornamental Horticulture, Golf Course Management, Landscape Management, and Turfgrass Management. As a two-year program, the IAA has a separate admission policy. Upon completion of the program, students are welcome to transfer to the University of Maryland, College Park; University of Maryland University College; and other schools.

For more information about the IAA, its admissions procedures, and requirements, contact the Institute of Applied Agriculture, 2123 Jull Hall, University of Maryland, College Park, MD 20742-2525.

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SCHOOL OF ARCHITECTURE, PLANNING, AND PRESERVATION (ARCH)

Architecture Building, 301-405-8000
www.arch.umd.edu
Dean: Garth Rockcastle
Associate Dean(s): John Maudlin-Jeronimo, Lee Waldrep
Assistant Dean(s): Ingrid Farrell

Director: B. Kelly (Assoc Prof & Dir)
Professors: W. Bechhoefer (Dist Univ Prof), R. Bennett, G. Bowden (Prof of Practice), K. DuPuy, R. Etlin (Dist Univ Prof), G. Francescato, S. Hurtt, P. Noonan (Prof of Practice), T. Schumacher, R. Vann
Associate Professors: M. Bell, C. Bovill, A. Gardner, I. Gournay
Assistant Professors: M. Ambrose, D. Oakley, I. Williams, B. Wortham
Lecturers: L. Escobal, M. McInturff
Professors Emeriti: J. Hill, R. Lewis, J. Loss., B. Schlesinger
Visiting Faculty: R. Eisenbach, M. Simon

The School of Architecture, Planning, and Preservation offers a four-year undergraduate program leading to the Bachelor of Science degree in architecture, and a graduate program leading to the professional degree of Master of Architecture. The undergraduate major in architecture is designed to minimize the time required to complete the curriculum leading to the professional degree.

Students receive rigorous and comprehensive instruction from a faculty whose members are active in professional practice or research. Many faculty members have distinguished themselves across the professional spectrum and represent different approaches to architectural design. Their individual areas of expertise include architectural design and theory, history, architectural archaeology, technology, urban design and planning, and historic preservation. Visiting critics, lecturers, and the Kea Distinguished Professor augment the faculty; together they provide students with the requisite exposure to contemporary realities of architectural design.

The B.S. degree in architecture will qualify graduates to pursue a career in a number of fields, such as construction, real estate development, public administration, or historic preservation, or to continue in graduate work in professional fields such as architecture, urban planning, historic preservation, landscape architecture, or law.

Special Advantages and Facilities

The school is housed in a modern, air-conditioned building providing design workstations for each student, a 300 seat auditorium, and seminar and classroom facilities. A well-equipped woodworking and model shop, and computer graphics facilities are also provided. The Architecture Library, one of the finest in the nation, offers convenient access to a current circulating collection of more than 24,000 volumes, 6,000 periodicals, and an extensive selection of reference materials. Rare books and special acquisitions include a collection relating to international expositions and the 11,000-volume National Trust for Historic Preservation Library. The Elizabeth D. Alley Visual Resources Collection includes a reserve collection of 500,000 slides on architecture, landscape architecture, urban planning, architectural science, and technology as well as audio-visual equipment for classroom and studio use.

Summer programs include travel to Rome, Paris, Turkey, Great Britain, and other countries. Students may earn direct credit doing hands-on restoration work and by attending lectures by visiting architects, preservationists, and scholars.

Admission Requirements

Architecture is a Limited Enrollment Program (LEP). See the Admissions section in chapter 1 for general LEP admission policies.
**Freshman Admission.** Students with the most competitive records from high school will gain direct admission to the School of Architecture, Planning and Preservation from high school, as allowed by space considerations with the School. Because space may be limited before all interested freshmen are admitted to the program, early application is strongly encouraged. Freshmen admitted to the program will have access to the necessary advising through their initial semesters to help them determine if architecture is an appropriate major for their interests and abilities.

Freshmen who are admitted to architecture will be subject to a performance review at the end of their third semester, typically 45 credits. To meet the provisions of the review, these students must demonstrate their ability to complete the following prior to enrollment of the studio sequence:

- Fundamental Studies CORE requirement
- Distributive Studies CORE requirement
- ARCH 170, 225, 226, and 242 with a grade of 3.0 or higher in each course
- MATH 220, PHYS 121 and one of the courses** listed below with a minimum grade of 2.0 in each and an overall minimum grade point average of 2.67 in all three

** Students must take one of the courses below to complete the Mathematics and the Sciences Distributive Studies CORE requirement:

- BSCI 205 (3) Environmental Science (LS)
- GEOG 140 (3) Coastal Environments (PS)
- GEOL 120 (3) Environmental Geology (PS)
- GEOL 123/METO 123/GEOG 123 (3) Causes and Implications of Global Change (PS)
- PHYS 122 (4) Fundamentals of Physics II (PL)

Students may be enrolled in ARCH 226 and completing their distributive studies contemporaneous with the review process during their fourth semester. A minimum cumulative GPA of 2.00 in all college level coursework is also required. In addition, the review will include an assessment of two letters of recommendations, transcripts, an essay, and a portfolio, the nature of which is specified by the School. Please contact the School of Architecture, Planning, and Preservation at 301-405-8000 for portfolio requirements and deadlines. You may also visit the School website at [www.arch.umd.edu](http://www.arch.umd.edu).

*Note: Students are admitted to the School during the Fall semester only.*

**Transfer Admission Requirements.** New transfer students, as well as students already enrolled on campus who wish to change majors to architecture, will undergo a transfer admission process. To meet the provisions of the process, these students must demonstrate their ability to complete the following prior to enrollment in the studio sequence (Junior year):

- Fundamental Studies CORE requirement
- Distributive Studies CORE requirement
- ARCH 170, 225, 226, and 242 with a grade of 3.0 or higher in each course
- MATH 220, PHYS 121 and one of the courses** listed below with a minimum grade of 2.0 in each and an overall minimum grade point average of 2.67 in all three

** Students must take one of the courses below to complete the Mathematics and the Sciences Distributive Studies CORE requirement:

- BSCI 205 (3) Environmental Science (LS)
- GEOG 140 (3) Coastal Environments (PS)
- GEOL 120 (3) Environmental Geology (PS)
- GEOL 123/METO 123/GEOG 123 (3) Causes and Implications of Global Change (PS)
- PHYS 122 (4) Fundamentals of Physics II (PL)

Students may be enrolled in ARCH 226 and completing their distributive studies contemporaneous with the review process during their fourth semester. A minimum cumulative GPA of 3.00 or above in all college level coursework is also required. In addition, the review will include an assessment of two letters of recommendations, transcripts, an essay, and a portfolio, the nature of which is specified by the School. Please contact the School of Architecture, Planning, and Preservation at 301-405-8000 for portfolio requirements and deadlines. You may also visit the School website at [www.arch.umd.edu](http://www.arch.umd.edu).

*Note: just because students meet the above requirements, does not guarantee admission into this LEP (Limited Enrollment Program).*
Note: Students are admitted to the School during the Fall semester only.

**Appeals.** Students who are denied admission and who feel that they have extenuating circumstances may appeal in writing to the Office of Undergraduate Admissions, Mitchell Building. Students denied admission at the 45 credit review may appeal directly to the School of Architecture, Planning and Preservation. For further information, contact the Counselor for Limited Enrollment Programs at 301-314-8385.

**Recruitment**

Associate Dean: Lee W. Waldrep, Ph.D.
1298 Architecture Building, 301-405-8000
www.arch.umd.edu

The School’s Associate Dean serves as a resource and contact person for prospective students interested in the B.S. in Architecture degree and also serves as a liaison to the Office of Undergraduate Admissions.

**Undergraduate Degree Requirements/Degree Options**

In the first two years of college, directly admitted students and those seeking to transfer into the School of Architecture, Planning and Preservation should adhere to the following curriculum:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIV100</td>
<td>The Students in the University</td>
<td>1</td>
</tr>
<tr>
<td>ENGL101</td>
<td>Introduction to Writing (CORE)</td>
<td>3</td>
</tr>
<tr>
<td>MATH220</td>
<td>Elementary Calculus I (CORE)</td>
<td>3</td>
</tr>
<tr>
<td>ARCH170</td>
<td>Introduction to the Built Environment (CORE)</td>
<td>3</td>
</tr>
<tr>
<td>ARCH225</td>
<td>Fundamentals of Physics I (CORE)</td>
<td>4</td>
</tr>
<tr>
<td>ARCH226</td>
<td>History of World Architecture I</td>
<td>3</td>
</tr>
<tr>
<td>ARCH242</td>
<td>History of World Architecture II</td>
<td>3</td>
</tr>
<tr>
<td>ARCH242</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>BSCI 205</td>
<td>Environmental Science (LS)</td>
<td></td>
</tr>
<tr>
<td>GEOG 140</td>
<td>Coastal Environments (PS)</td>
<td></td>
</tr>
<tr>
<td>GEOL 120</td>
<td>Environmental Geology (PS)</td>
<td></td>
</tr>
<tr>
<td>GEOL 123+</td>
<td>Causes &amp; Implications of Global Change (PS)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 122</td>
<td>Fundamentals of Physics II (PL)</td>
<td></td>
</tr>
</tbody>
</table>

**General Education (CORE) and Electives**

Total Credits 56

*GEOL 123 is also offered as METO123 and as GEOG123

If admitted after completing 56 credits, students are expected to complete the following requirements for a total of 120 credits:

<table>
<thead>
<tr>
<th>Credits</th>
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<tbody>
<tr>
<td>Total</td>
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</tbody>
</table>

Third Year
Courses are to be taken in sequence as indicated by Roman numerals in course titles.

**Directed Architecture history courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH420</td>
<td>History of American Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH422</td>
<td>History of Greek Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH423</td>
<td>History of Roman Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH433</td>
<td>History of Renaissance Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH434/</td>
<td>History of Modern Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH435</td>
<td>History of Contemporary Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH436/</td>
<td>History of Islamic Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH437</td>
<td>History of Pre-Columbian Architecture</td>
<td></td>
</tr>
</tbody>
</table>

**Advising**

Entering students are advised by the Office of Undergraduate Advising; as advising is mandatory, students are expected to meet with an academic advisor each semester to discuss their academic plan and course selection. Students are encouraged to contact the School office (301-405-8000) to determine available advising hours and/or make an appointment.
Approved Student Societies and Professional Organizations

The School of Architecture, Planning, and Preservation sponsors a chapter of the American Institute of Architecture Students (AIAS), the national association for architecture students. The AIAS chapter sponsors a variety of activities including an annual Career Fair, Beaux Arts Ball, field trips, and other events throughout the academic year.

Financial Assistance

Each year, the School of Architecture, Planning and Preservation offers a number of merit-based scholarships to qualifying undergraduate students; some are offered to students participating in study abroad programs. Interested students are encouraged to apply for these early during the spring semester. Please note that most of these scholarships are reserved for students in the studio sequence of the program.

The Office of Student Financial Aid (OFSA) administers all types of federal, state, and institutional financial assistance programs and, in cooperation with other University offices, participates in the awarding of scholarships to deserving students. For more information, visit: www.financialaid.umd.edu.

Research Units

National Center for Smart Growth Research and Education

1112 Preinkert Fieldhouse, College Park, 301-405-6788
www.smartgrowth.umd.edu/
Dr. Gerritt Knaap

The National Center for Smart Growth Research and Education is a non-partisan center for research and leadership training on Smart Growth and related land use issues nationally and internationally. Founded in 2000, the National Center for Smart Growth is a cooperative venture of four University of Maryland schools: Architecture, Planning and Preservation, Public Policy, Agriculture and Natural Resources, and Engineering. The mission of the Center is to bring the diverse resources of the University of Maryland and a network of national experts to bear on issues in land development, resource preservation and urban growth -- the nature of our communities, our landscape and our quality of life -- through interdisciplinary research, outreach and education, thereby establishing the University as the national leader in this field.

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COLLEGE OF ARTS AND HUMANITIES (ARHU)

The College of Arts and Humanities embraces a heterogeneous group of disciplines, all of which value the development of critical thinking, fluent expression in writing and speech, sensitivity to ethical and aesthetic issues, and a complex understanding of history and culture. Departments and programs in Arts and Humanities, while they have strong individual identities, are also involved in interdisciplinary studies. Thus students will find, for example, courses in the Department of English that approach literature from political perspectives, courses in the Department of History that rely on feminist perspectives, courses in the Department of Art History and Archaeology that study African cultures, and so on.

Further examples of the special opportunities available to students in this richly variegated college include an exceptional visual resource center in Art History and Archaeology, the English Department’s computer-based writing classroom, and an AT&T Foreign Language Classroom. Additionally, students may add an international dimension to their undergraduate education by participating in an ARHU-sponsored study abroad program in Nice, Alcala, Sevilla, or Genoa or an exchange program in the United Kingdom, Singapore, or Japan. Furthermore, the education vistas open to students in Dance, Music, and Theatre are enhanced enormously by the Clarice Smith Center for the Performing Arts, which houses those three departments.

Admission Requirements

Students wishing to major in one of the creative or performing arts are encouraged to seek training in the skills associated with such an area prior to matriculation. Students applying for entrance to these programs may be required to audition, present slides, or submit a portfolio as a part of the admission requirements.

Recruitment

1120L Francis Scott Key Hall, 301-405-2096
www.arhu.umd.edu/admissions
Admissions Coordinator: J. Darius Greene

The College’s Admissions Coordinator serves as a resource and contact person for prospective students interested in Arts and Humanities degrees, and as a liaison to the Office of Undergraduate Admissions.

Undergraduate Degree Requirements/Degree Options

The College of Arts and Humanities offers the degree of Bachelor of Arts in the following fields of study:

American Studies: www.amst.umd.edu
Art: www.art.umd.edu
Art History and Archeology: www.arhistory-archaeology.umd.edu
Central European, Russian, and Eurasian Studies: www.ceres.umd.edu
Chinese Language and Literature:
Major Requirements

All students must complete a program of study consisting of a major (a field of concentration) and usually supporting courses as specified by one of the academic units of the College. No program of study shall require in excess of 60 semester hours.
A major shall consist, in addition to the lower-division departmental prerequisites, of 24 to 40 hours, at least 12 of which must be in courses numbered 300 or 400 and at least 12 of which must be taken at the University of Maryland, College Park.

A major program usually requires a secondary field of concentration (supporting courses). The nature and number of these courses are determined by the major department.

No grade lower than C may be used to fulfill major or supporting course requirements. No course for the major or support module may be taken Pass-Fail.

Students should consult the unit in which they will major for specific details; certain units have mandatory advising.

Graduation Requirements

The following College requirements apply only to students earning Bachelor of Arts degrees from the College of Arts and Humanities. These requirements are in addition to or in fulfillment of campus and departmental requirements. For information concerning the Bachelor of Music in the School of Music, students should consult a Music advisor.

Students who double major in ARHU and another college on campus must complete the College requirements in ARHU of foreign language to the intermediate level, and 45 hours of upper-level credit.

All Arts and Humanities freshmen (excluding students in College Park Scholars, Honors Humanities, or University Honors) must take UNIV 101, The Student in the University and Introduction to Computer Resources, during their first semester on campus.

Distribution: A minimum of 45 of the total of 120 semester hours must be upper-level work (i.e., courses numbered 300-499).

Foreign Language: Language proficiency may be demonstrated in one of several ways:

(a) Successful completion of level 4 in one language in high school. Students must provide a high school transcript to verify exemption.
(b) Successful completion of a college foreign language course designed by the department.
(c) Students who have native proficiency in a language other than English may certify their native proficiency by taking an exam administered by the American Council on the Teaching of Foreign Languages. For more information, please see an advisor in the ARHU Office of Student Affairs, or call 301-405-2108.

Advising

Freshmen and new transfer students have advisors in the Arts and Humanities College Office of Student Affairs (301-405-2108) who assist them in the selection of courses. Students must see the departmental advisor for the major. All first-year students (both freshmen and transfers) and seniors who have completed 90-105 credits, have mandatory advising in both the College and the department. For further information about advising, students should call the ARHU Office of Student Affairs, 301-405-2108.

Internships

Several departments within Arts and Humanities have well-established internship options. For more information on internships taken for academic credit, students should contact their departmental academic advisor. Typically, students must be in good academic standing and in their junior or senior year to complete a for-credit internship. They usually complete an application and attach a current academic transcript, and the experience usually lasts for one semester. In addition to the site experience, students write an analysis of the experience in conjunction with a faculty member in their department. Internships with literacy programs and with the Maryland General Assembly are available through the English Department, 301-405-3827. For assistance in locating an internship site, visit the University Career Center at 3100 Hornbake Library, South Wing or do a search on the website.
www.careercenter.umd.edu

Certification of High School Teachers

A student who wishes certification as a secondary education teacher in a subject represented in this college is encouraged to speak with an advisor in Education Curriculum and Instruction (1207 Benjamin Bldg.) to discuss the different paths available for certification. A student may pursue secondary teacher certification as an undergraduate with a double major in a content area and secondary education, pursue the five-year integrated master's program which allows for the content major as an undergraduate and completion of certification and graduate degree requirements in a fifth year, or apply to the one-year intensive master's plus certification program.

Departments and Centers

Academic Computing Services
1116 Francis Scott Key Hall, 301-405-2104
www.ARHU.umd.edu/technology
Director: Kathleen R. Cavanaugh

Academic Computing Services (ACS) supports the use of technology by faculty, staff, and students in the College of Arts and Humanities. ACS maintains a variety of laboratories and instructional facilities to support the needs of the College. These include computer-equipped classrooms such as the Language Technology Classroom and the English New Media Classroom as well as facilities, such as the lab in the St. Mary's Hall, designed for individual student use.

The Art Gallery
1202 Art-Sociology Building, 301-405-2763
www.artgallery.umd.edu
Director: Scott D. Habes

The Art Gallery presents a series of exhibitions each year of historic and contemporary art in a variety of media and subject matter. Opportunities for museum training and arts management experience are available to students through intern and work-study positions.

The Center for Renaissance and Baroque Studies
0139 Taliaferro Hall, 301-405-6830
www.crbs.umd.edu
Founding Director: S. Schoenbaum (1927-96)
Director: Adele Seeff
Associate Director: Karen Nelson

The Center for Renaissance and Baroque Studies promotes teaching and research in the Renaissance and Baroque Periods in all disciplines of the arts and humanities. The Center sponsors a vast array of programs, including annual interdisciplinary symposia, special lectures and performances, conferences, summer institutes, a journal, and a volume series of symposia proceedings published by the University of Delaware Press in conjunction with Associated University Presses. As part of its mission to support undergraduate education, the Center offers a minor in Renaissance studies and coordinates a series of interdisciplinary arts and humanities courses. Through its outreach programs, the Center provides professional development to secondary school arts and humanities teachers throughout the state of Maryland, sponsors a Shakespeare summer camp and a Shakespeare monologue contest, both of which target middle school students. The planning committee for Attending to Early Modern Women--one of the Center's standing committees--organizes and coordinates an international symposium on the university's campus every three years.

David C. Driskell Center for the Study of the African Diaspora
2114 Tawes Fine Arts Building, 301-314-2615
e-mail: driskellcenter@umd.edu
www.driskellcenter.umd.edu
Executive Director: Robert E. Steele

The David C. Driskell Center for the Study of the Visual Arts and Culture of African Americans and the African Diaspora at the University of Maryland celebrates the legacy of David C. Driskell -- Distinguished University Professor Emeritus of Art, Artist, Art Historian, Collector, and Curator -- by preserving the rich heritage of African American visual art and culture. Established
in 2001, the Center provides an intellectual home for artists, museum professionals, art administrators, and scholars of color, broadening the field of African diasporic studies. By bringing together the visual arts and the field of diasporic studies in fluid and dynamic ways, the Center offers creative and curricular programming to the University and the greater Maryland and Washington, DC communities, while serving as a national leader in the field of African American art and culture.

**Consortium on Race, Gender, and Ethnicity (CRGE)**
2103 Tawes-Fine Arts Bldg, 301-405-2931
Director: Ruth E. Zambrana
Associate Director: Amy E. McLaughlin

The Consortium on Race, Gender and Ethnicity (CRGE) is a university-wide, nationally prominent, interdisciplinary research organization and pedagogic unit that collaborates with departments and colleges across UM to promote scholarship as well as faculty and graduate student development. CRGE's work unites scholars from around campus who examine the intersections of race, gender, ethnicity and other dimensions of difference as they shape identities, behavior and complex social relations. CRGE offers programs, research interest groups, seed grants, graduate fellowships and colloquia.

**Language Media Services**
1204 Jiménez Hall, 301-405-4925; Fax: 301-314-9752
Email: langweb@umd.edu
www.languages.umd.edu/lms
Janel Brennan-Tillmann, Coordinator of Language Instructional Technology
Jeff Maurer, Multimedia Technician

Language Media Services (LMS) is a support unit within the School of Languages, Literatures and Cultures which provides audio visual equipment and multimedia support for faculty, staff and students. LMS provides first tier support and training for faculty teaching in the five technology enhanced classrooms located in Jimenez Hall, the mobile audio lab and the computer classroom. Services for faculty include equipment and video/DVD loan, foreign language program recording, scanning of instructional documents, training on equipment use, tape duplication and conversion, and digitization of audio materials. Services for students include audiotape and digital audio file distribution and an independent study space.

**FOLA**
1109 Jiménez Hall, 301-405-4046
www.umd.edu/fola
Coordinator: Naime Yaramanoglu

The FOLA (Foreign Language) Program enables qualified students with high motivation to acquire a speaking knowledge of a number of foreign languages not offered in regular campus programs. While instruction is basically self-directed, students meet regularly with a native-speaking tutor for practice sessions to reinforce what has already been covered through the individual use of books and audio tapes or CDs. Final examinations are administered by outside examiners who are specialists in their fields.

**Living-Learning Programs**

**Honors Humanities**
1103 Wicomico Hall, 301-405-6992
www.honorshumanities.umd.edu
e-mail: honorshumanities@umd.edu
Director: Professor Peter Mallios

Entering freshmen participate by invitation in Honors Humanities, a two-year living/learning program. Honors Humanities is for academically talented students who have intellectual ambitions in the humanities and arts or a desire to develop their education on a liberal arts foundation. The program is organized around a two-year research or creative project (The Keystone Project) that a student designs and executes with the guidance of a faculty mentor. Honors Humanities provides students with stimulating seminars, exciting academic friendships, a lively home base in Wicomico Hall, and opportunities to take advantage of the intellectual, cultural, and artistic riches of the Washington, D.C. region. Upon successful completion of the program, students earn a citation in Honors Humanities, and this citation is entered upon their university transcripts.
College Park Scholars
CPS in the Arts: Professor Peter Beicken, Dr. David Solomon
CPS in American Cultures: Professor Sangeeta Ray
www.scholars.umd.edu

The College of Arts and Humanities co-sponsors cross-disciplinary College Park Scholars programs in American Cultures and in Arts. These two-year programs provide exciting living-learning environments in specially-equipped residence halls (Centreville and Bel Air respectively). Students with strong interests in these areas meet in weekly colloquia with faculty, and, in the Arts program, with student teachers as well, to pursue creative and intellectual endeavors. Field trips, invited speakers, hands-on workshops, and the yearly staged Arts Fair on Maryland Day in Spring stimulate creativity and the sense of togetherness while forming a community of learners and teachers in the Arts Program. American Cultures focuses on the peoples, cultures and histories of North and South America, allowing students to think comparatively. Students engage these topics through various readings, invited lectures, local field trips, presentations, and community service, culminating in a program-sponsored 4-6 day trip to a rich cultural site in the Americas. Both Scholars programs give students the opportunity to study with their peers while being in close contact with their faculty advisors experiencing a small college environment.

Jiménez-Porter Writers' House
0111 Dorchester Hall, 301-405-0671
www.writershouse.umd.edu
Director: Johnna Schmidt

The Jiménez-Porter Writers' House is a living and learning program open to students from all majors and across all four years of undergraduate study. Located in Dorchester Hall, the Writers' House creates a campus-wide literary center to study creative writing in its cross-cultural and multilingual dimensions. Participants live in a close community of students who share an interest in creating stories, poems, plays, and imaginative non-fiction. Students work with visiting writers, publish a literary magazine, attend special readings and colloquia, produce an annual literary festival, and receive notation upon successful completion of the program. Class sizes are small, and include one-on-one faculty advising sessions. Admission to the Writers' House is competitive, with only forty to fifty students living and writing together each year. Applications can be obtained by contacting the director, or by visiting www.writershouse.umd.edu. Final deadline for admission every year is March 1.

Language House
0107 St. Mary's Hall, 301-405-6996
www.languages.umd.edu/lh
Program Director: Dr. Phoenix Liu
PhoenixL@umd.edu

The Language House is a campus living-learning program for students wishing to immerse themselves in the study of a foreign language and culture. A total of 97 students of Arabic, Chinese, French, German, Hebrew, Italian, Japanese, Persian, Russian, and Spanish share 19 apartments. A live-in native graduate mentor leads each language cluster. The goal of language immersion is achieved through activities organized by the students and mentors, a language-learning computer lab, an audio-visual multi-purpose room, and foreign television programs received via satellite.

College Honors Program

Most departments in the College of Arts and Humanities offer Departmental Honors Programs (DHP). DHPs are upper-division programs within the individual academic units. Students enrolled in Departmental Honors work independently with faculty members in subjects of special interest, develop and deepen their research skills, and, in the process, earn an even stronger degree. Students must have a cumulative grade point average of at least 3.0 to be admitted. For further information about individual Departmental Honors Programs and policies, consult with departmental advisors.

Phi Beta Kappa
Consult the description of Phi Beta Kappa in chapter 4.

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COLLEGE OF BEHAVIORAL AND SOCIAL SCIENCES (BSOS)

2148 Tydings Hall, 301-405-1697
www.bsos.umd.edu
bsosque@bsos.umd.edu
Dean: Edward Montgomery
Associate Dean(s): Robert Schwab
Assistant Dean(s): Katherine Pedro Beardsley, Jennifer Dumas, Cynthia Hale, Kim Nickerson

The College of Behavioral and Social Sciences is comprised of a diverse group of disciplines and fields of study all of which emphasize a broad liberal arts education as the foundation for understanding the environmental, social, and cultural forces that shape our world. At the heart of the behavioral and social sciences is the attempt to understand human beings, both individually and in groups. Disciplines in the behavioral and social sciences use approaches that range from the scientific to the philosophical, from the experimental to the theoretical. Integral to all the disciplines, however, is the development and application of problem solving skills, which in combination with other academic skills, enable students to think analytically and to communicate clearly and persuasively. Students interested in human behavior and in solving human and social problems will find many exciting opportunities through the programs and courses offered by the College of Behavioral and Social Sciences.

Undergraduate Degree Requirements/Degree Options

- Each student must complete a minimum of 120 hours of credit with at least a 2.0 cumulative grade point average. Courses must include the credits required in the University’s general education requirements (CORE) and the specific major and supporting course and grade requirements of the programs in the academic departments offering bachelor’s degrees.
- Students in BSOS must complete Math and English by 60 credits.
- Students must complete 15 upper-level credits in the student’s final 30 credits.
- All students are urged to speak with an academic advisor in their major and an advisor in the College Advising Office at least two semesters before graduation to review their academic progress and discuss final graduation requirements.

Advising

The BSOS Advising Center coordinates advising and maintains student records for BSOS students. Advisors are available to provide information concerning University requirements and regulations, transfer credit evaluations, and other general information about the University by appointment from 9 a.m. to 5 p.m. daily. Undergraduate advisors for each undergraduate major are located in the department offices. These advisors are available to assist students in selecting courses and educational experiences in their major area of study consistent with major requirements and students’ educational goals.

Departments and Centers

The College is composed of the following departments, each offering a major program that leads to the Bachelor of Arts or the Bachelor of Science degree, as appropriate:

- Department of African American Studies*

- Department of Anthropology
Department of Criminology and Criminal Justice
Department of Economics
Department of Geography
Department of Government and Politics
Department of Hearing and Speech Sciences
Department of Psychology
Department of Sociology

In addition, the College is a major contributor to the Environmental Science and Policy Program and sponsors several of its areas of concentration.

*The Department of African American Studies also offers an undergraduate certificate requiring 21 semester hours of course work (see Undergraduate Certificate Programs in chapter 7).

Minors

Several departments within the College of Behavioral and Social Sciences sponsor minors. Approved minors include:

- Black Women's Studies (Departments of African American Studies and Women's Studies)
- Geographic Information Science (Department of Geography)
- Hearing and Speech Sciences (Department of Hearing and Speech Sciences)
- International Development and Conflict Management (Department of Government and Politics - see requirements below)

For more information about minors, please visit: www.provost.umd.edu/minors/

Minor in International Development and Conflict Management

The Minor in International Development and Conflict Management is a 19-credit, undergraduate program of instruction for students aspiring to a profession in the fields of conflict resolution, international development, and humanitarian relief.

Applications are accepted in the Spring and accepted students begin the program the following Fall. Students applying for the program must be entering their sophomore, junior, or senior year of undergraduate work. Applicants must be full-time students in good standing, with a cumulative GPA of 2.5 or better. Up to 35 students are accepted into the program each year.

Advising for the minor is conducted through the Center for International Development and Conflict Management directly, not the Department of Government and Politics. For more information about the minor and for application materials, please visit: www.cidcm.umd.edu/minor/

Requirements for the minor include the following coursework:

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVPT 354 Peacebuilding, Post-Conflict Reconstruction, and International Development</td>
<td>3</td>
</tr>
<tr>
<td>STAT One statistics course from approved list</td>
<td>3</td>
</tr>
</tbody>
</table>
**Living-Learning Programs**

**CIVICUS**
0107 Somerset Hall, 301-405-8759
Director: Dr. Sue Briggs

CIVICUS is a two-year living and learning program in the College of Behavioral and Social Sciences. The program is centered around five themes of civil society: citizenship, leadership, community service-learning, community building in a diverse society, and scholarship. About 130 diverse and energetic CIVICUS Associates take a core of classes together, live together in Somerset Hall, and participate in civic, community service, co-curricular, and other activities and projects on and off campus.

CIVICUS is founded on the assumption that to be engaged members of civil society we have an obligation to be aware of the world outside of the classroom. Therefore, our courses and activities are intricately linked with each other and the campus, local, and national communities. CIVICUS Associates enrich their academic work and explore career opportunities by participating in campus programs, volunteering with non-profit organizations, creating their own community service projects, and participating in internships at the University or in the D.C. metropolitan area.

Selected students are invited to participate in the CIVICUS program when they apply to the university as first-year students, based on their admissions essays, letters of recommendation, and activities in high school and the community. CIVICUS looks to invite students who will continue to strengthen and broaden their leadership skills within the campus and local communities.

For more information, please visit: [www.bsos.umd.edu/civicus/](http://www.bsos.umd.edu/civicus/)

**College Park Scholars, International Studies**
1104 Centreville Hall, 301-405-9304
Faculty Director: Dr. James Glass

One of twelve College Park Scholars living-learning programs, the International Studies Program brings together undergraduate students from a variety of disciplines who share an interest in global issues, politics, and events. Each entering class of approximately sixty-five students takes courses together during the freshman and sophomore years. The majority of International Studies Scholars reside in Centreville Hall.

International Studies was one of the original four College Park Scholars programs launched in 1994, sponsored by the College of Behavioral and Social Sciences (BSOS) and the Department of Government and Politics (GVPT). The Faculty Director and the Teaching Assistants all have their roots in the Department of Government and Politics.
in the Department of Government and Politics.

The International Studies Program welcomes students who wish to live and learn together and who have an interest in exploring international political, economic, and cultural issues. Our program offers an opportunity to build global understanding and global awareness through academic and experiential learning.

For more information, please visit: www.scholars.umd.edu/is/

**Specialized Academic Programs**

**Atlantic Coast - Social, Behavioral and Economic Sciences Alliance for Graduate Education and the Professoriate (AC-SBE Alliance)**

Director: Kim J. Nickerson  
301-405-7599  
knickerson@bsos.umd.edu  
www.acsbe.org

The AC-SBE Alliance is comprised of the University of Maryland at College Park, the University of North Carolina at Chapel Hill, Howard University, the University of Florida, and the University of Miami. The goals of the AC-SBE Alliance are to increase the number of Under-Represented Minority (URM) students receiving Ph.D.'s in SBE disciplines and to increase the number of URM students entering the SBE professoriate. The AC-SBE Alliance recruits and prepares undergraduates to pursue the Ph.D. degree, assists students in the transition from BA to Ph.D. programs, assists graduate students in completing the Ph.D., and prepares future graduate students for faculty success. The College of Behavioral and Social Sciences is the leading body at the UMD campus for this particular alliance.

BSOS also collaborates with the UMD Graduate School and the University of Maryland System's Promise Alliance for Graduate Education and the Professoriate (AGEP). Through these relationships, students can participate in graduate training seminars and professional development activities. In addition, BSOS organizes an annual Summer Research Initiative for undergraduates in order to achieve the goals set by the AC-SBE Alliance (www.bsos.umd.edu/dean/summer.html).

**College Honors Program**

Undergraduate honors are offered to graduating students in the departments of African American Studies, Anthropology, Criminology and Criminal Justice, Economics, Geography, Government and Politics, Psychology, and Sociology.

**Dean's Academic Scholar.** To be named a Dean's Academic Scholar is the highest academic award that a BSOS student can earn in the College. Dean's Scholars are those graduating seniors who have completed 60 credits at the University of Maryland, College Park and have maintained a minimum cumulative grade point average of 3.8. A student who has been found responsible of a violation of academic integrity is not eligible.

**Dean's List.** Any student who has passed at least 12 hours of academic work under the regular grading method in the preceding semester, without failure of any course, and with an overall average grade of at least 3.5, will be placed on the Dean's List. The Distinguished Dean's List consists of students who have completed successfully a minimum of 12 credit hours in a semester with a 4.0.

**Honor Societies.** Students who excel in their academic discipline may be selected for membership in an honorary society. Honoraries for which students in BSOS are chosen include:

- Alpha Kappa Delta -- Sociology
- Alpha Phi Sigma -- Criminal Justice
- Gamma Theta Upsilon -- Geography
- Omicron Delta Epsilon -- Economics
- Pi Sigma Alpha -- Political Sciences
- Psi Chi -- Psychology

**Approved Student Societies and Professional Organizations**
Students who major in the Behavioral and Social Sciences have a wide range of interests. The following is a list of student organizations in the disciplines and fields of the Behavioral and Social Sciences:

- Anthropology Student Association
- Criminal Justice Student Association
- Economics Association of Maryland
- Geography Club
- Maryland Neurosciences Society
- National Student Speech-Language and Hearing Assoc.(NSSLHA), MD Chapter
- Pre-Medical Society
- Sociology Collective
- The Society of African American Studies

For more information about these student organizations or starting a new student group, please contact the Office of Campus Programs, Adele H. Stamp Student Union, 301-314-7174.

**Financial Assistance**

The College of Behavioral and Social Sciences offers several scholarships to students in BSOS majors who have enrolled in the college for two or more semesters and who have completed 60 credits. Each scholarship also has additional eligibility criteria. The scholarships include:

- Murray E. Polakoff Scholarship Award for Academic Excellence
- Irv & Micki Goldstein Scholarship Award for Commitment to Service
- Katherine Pedro & Robert S. Beardsley Scholarship Award for Outstanding Leadership
- Jean & Robert Steele Scholarship Award for First Generation Students
- BSOS Future Alumni Scholarship Award for Financial Need

Scholarship information and applications are made available each January, and applications are due in February. Scholarship awards are granted for the following Fall semester. For more information, please visit: [www.bsosadvising.umd.edu/scholarapps.html](http://www.bsosadvising.umd.edu/scholarapps.html)

The Office of Student Financial Aid (OFSA) administers all types of federal, state, and institutional financial assistance programs and, in cooperation with other University offices, participates in the awarding of scholarships to deserving students. For more information, visit: [www.financialaid.umd.edu](http://www.financialaid.umd.edu)

**Research Units**

The College of Behavioral and Social Sciences sponsors several special purpose, college-wide research centers. These centers include The Public Safety Training and Technology Assistance Agency and the Center for Substance Abuse Research. These interdisciplinary centers often offer internships and a selected number of undergraduate research assistant opportunities for interested students. These research experiences offer excellent preparation for future graduate study and/or job opportunities in the private and public sectors. In addition, the college offers computing services through its Office of Academic Computing Services.

**Center for Substance Abuse Research (CESAR)**

4321 Hartwick Rd. Ste. 501, College Park, 301-405-9770

[www.cesar.umd.edu](http://www.cesar.umd.edu)

Director: Dr. Eric Wish

Established in 1990, CESAR is a research unit sponsored by the College of Behavioral and Social Sciences. CESAR staff gather, analyze, and disseminate timely information on issues of substance abuse and monitor alcohol- and drug-use indicators throughout Maryland. CESAR aids state and local governments in responding to the problem of substance abuse by providing the above-stated information, as well as technical assistance and research. Faculty members from across campus are involved with CESAR-based research, creating a center in which substance abuse issues are analyzed from multidisciplinary perspectives. Students obtain advanced technical training and hands-on
experience through their involvement in original surveys and research.

Public Safety, Training and Technology Assistance (PSTTP)
9001 Edmonston Rd. Ste. 300, Greenbelt, 301-489-1700
www.hidta.org
Director: Thomas H. Carr

Established in 1994, the Public Safety, Training and Technology Assistance Program (PSTT) (formerly the Washington/Baltimore HIDTA) is co-sponsored by the College of Behavioral and Social Sciences and President Bush’s Office of National Drug Control Policy. This program is funded by Congress to help coordinate and fund the fight against drug-related crime and to treat drug-addicted criminal offenders. HIDTA efforts integrate prevention and law enforcement at the community level to reduce the involvement of high-risk youth in drug trafficking careers and criminal behavior. HIDTA also works with private industry and government to form partnerships geared toward the development of commercial software for use by law enforcement, criminal justice, treatment and regulatory agencies. The Washington/ Baltimore HIDTA employs a multi-disciplinary approach that incorporates law enforcement, treatment/criminal justice and prevention through a regional strategy that includes all these disciplines. Faculty members from across campus are involved with HIDTA-based research, and students obtain advanced technical training and hands-on experience through their involvement in data collection, original surveys, geo-mapping and research.

Office of Academic Computing Services (OACS)
0221 LeFrak Hall, 301-405-1670
www.oacs.umd.edu
Director: Dan Navarro

The College believes strongly that the study of behavioral and social sciences should incorporate both quantitative and computational skills. Consequently, curricula in most departments require some course work in statistics, quantitative research methods, and information technology. The BSOS Office of Academic Computing Services provides undergraduate students in the College with both facilities and staff assistance to satisfy a broad range of computer-related needs. OACS operates five computer classrooms and a specialized graphics lab that offer a wide variety of popular software, color and black-and-white printing, and both text and graphics scanning. Undergraduate students are also encouraged to take advantage of OACS’ learning resources, including free computer and statistics training courses, help documentation, a library of computer-related texts and free access to research data.

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THE ROBERT H. SMITH SCHOOL OF BUSINESS (BMGT)

1570 Van Munching Hall, 301-405-2286
www.rhsmith.umd.edu
Dean: Howard Frank
Associate Dean(s): Arjang Assad, Patricia Cleveland, Scott Koerwer

The Robert H. Smith School of Business is an internationally recognized leader in management education and research for the digital economy. The faculty are scholars, teachers, and professional leaders with a commitment to superior education in business and management, specializing in accounting, finance, information systems, operations management, management and organization, marketing, logistics, transportation and supply chain management. The Smith School is accredited by AACSB International - The Association to Advance Collegiate Schools of Business, the premier accrediting agency for bachelor's, master's and doctoral degree programs in business administration and accounting, www.aacsb.edu.

A student in the Smith School of Business selects a major(s) in one of the following curricula: (1) Accounting; (2) Finance; (3) General Business; (4) Information Systems; (5) International Business; (6) Logistics, Transportation, & Supply Chain Management; (7) Marketing; or (8) Operations Management.

Admission Requirements

See chapter 1 for general LEP admissions policies.

Freshman Admission

Admission to the BMGT degree programs is competitive. A limited number of freshmen who demonstrate outstanding talent will be admitted directly to their BMGT major of choice (e.g. Accounting, Finance, etc.). Admission will be on a space available basis. All students are urged to apply early. All students admitted directly to BMGT as freshmen must demonstrate satisfactory progress (2.00 cumulative GPA or better) plus completion of Gateway courses (BMGT 220, BMGT 230, ECON 200 or 201, and MATH 220 or 140 with a “C” or better) in the semester they reach 45 credits (excluding AP and ESL), at which time they will be reviewed in order to continue in the BMGT major.

Students not directly admitted to the Smith School of Business as freshman can be admitted to the Division of Letters & Sciences, with some of these students enrolling in the Markets and Society program. These students can apply for admission to Business by the semester in which 60 credits are completed. (See Transfer Admission below)

Transfer Admission for Students from On or Off Campus

Students who began at UMCP or a Maryland System School in Spring 2004 through Spring 2005 were grandfathered under the Spring 2001 admission standards, through Spring 2007. At this time all students must meet the current admission standards, detailed below.

All students applying for admission to BMGT as transfer students, whether internal transfers already enrolled at UMCP or external transfer students entering the university for the first time, will be subject to competitive admission for a limited number of spaces in the BMGT program at each program location.

To be considered for admission, applicants must complete the following requirements:
- Minimum 3.0 cumulative GPA (preferred, may vary based upon the applicant pool)

- Minimum junior standing: 60 credits earned

- Completion of 50% of lower-level university CORE requirements (Note: ECON 200 and 201 satisfy lower-level SB CORE requirements and MATH 220 or 140 satisfies lower-level MS CORE requirements)

- Completion of the following Gateway courses, all with "C" or better:
  
  BMGT 220 and 221: Accounting  
  ECON 220 and 201: Micro and Macro Economics  
  ENGL 101  
  MATH 220 or 140: Calculus  
  BMGT 230 or BMGT 231 or equivalent: Statistics

- Co-curricular involvement, leadership experience and honors and awards will also be considered in the admission decision. Students are strongly encouraged to submit with their applications a resume and letter detailing their accomplishments and experience.

**Application Deadlines for Transfer Students:** Complete applications and all supporting documents must be received no later than:

- Fall semester: August 1st  
- Spring semester: January 10th

Freshmen who begin study in another major at College Park who would have met the direct BMGT admission standards from high school have until the last day of instruction in the first semester of their freshmen year at College Park to change their major to BMGT.

**Appeals to this Policy:** Appeals to this policy may be filed with the Office of Undergraduate Admissions, on the ground floor Mitchell Building. Such appeals will require documentation of unusual, extenuating, or special circumstances.

**Statement of Policy on Transfer of Credit from Community Colleges**

It is the practice of the Smith School of Business to consider for transfer from a regionally accredited community college only the following courses in business administration: an introductory business course, business statistics, introduction to computing (equivalent to BMGT 201), or elementary accounting. Thus, it is anticipated that students transferring from another regionally accredited institution will have devoted the major share of their academic effort below the junior year to the completion of basic requirements in the liberal arts. A total of 60 semester hours from a community college may be applied toward a degree from the Smith School of Business.

**Other Institutions**

The Smith School of Business normally accepts transfer credits from regionally accredited four-year institutions. Junior- and senior-level business courses are accepted from colleges accredited by the Association to Advance Collegiate Schools of Business (AACSB). Junior- and senior-level business courses from other than AACSB-accredited schools are evaluated on a course-by-course basis to determine transferability.

The Smith School of Business requires that at least 50 percent of the business and management credit hours required for a business degree be earned at the University of Maryland, College Park.

**Undergraduate Degree Requirements/Degree Options**

The university confers the following degrees: Bachelor of Science (B.S.), Master of Business Administration (M.B.A.), Master of Science (M.S.), and Doctor of Philosophy (Ph.D.). Information concerning admission to the M.B.A. or M.S. program is available at www.rhsmith.umd.edu.
Undergraduate Program
The undergraduate program recognizes the need for professional education in business and management based on a foundation in the liberal arts. In addition, the program’s internationally integrated curriculum prepares students to be effective and responsible managers in today’s dynamic business environment.

A student in business and management selects a major in one of several curricula: (1) Accounting; (2) Information Systems: Specialization Business; (3) Finance; (4) General Business; (5) International Business; (6) Operations Management; (7) Marketing; (8) Logistics, Transportation, and Supply Chain Management.

Summary of Bachelor of Science Degree Requirements (all curricula)
At least 45 hours of the 120 semester hours of academic work required for graduation must be in business and management subjects. A minimum of 58 hours of the required 120 hours must be in 300- or 400-level courses. In addition to the requirement of an overall cumulative grade point average of 2.0 (C average) in all university course work. Effective Fall 1989, all business majors must earn a 2.0 or better in all required courses, including Economics, Mathematics, and Communication. Electives outside the curricula of the School may be taken in any department of the university, if the student has the necessary prerequisites.

Credits

**Freshman-Sophomore School Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT220</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BMGT221</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ECON200</td>
<td>Principles of Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON201</td>
<td>Principles of Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH220</td>
<td>Elementary Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>MATH140</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMGT230</td>
<td>Business Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BMGT231</td>
<td>Statistical Models for Business</td>
<td>3</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMM100</td>
<td>Foundations of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM107</td>
<td>Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM200</td>
<td>Critical Thinking and Speaking</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td>23-24</td>
</tr>
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**Junior-Senior School Requirements**

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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT301</td>
<td>Introduction to Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>BMGT340</td>
<td>Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>BMGT350</td>
<td>Marketing Principles and Organization</td>
<td>3</td>
</tr>
<tr>
<td>BMGT364</td>
<td>Management and Organizational Theory</td>
<td>3</td>
</tr>
<tr>
<td>BMGT367</td>
<td>Career Search Strategies in Business</td>
<td>1</td>
</tr>
<tr>
<td>BMGT380</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>BMGT495</td>
<td>Business Policies, OR</td>
<td>3</td>
</tr>
<tr>
<td>BMGT495H</td>
<td>Business Policies (Honors)</td>
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</tr>
<tr>
<td>ECON</td>
<td>Economics - see below</td>
<td>3-6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>22-25</td>
</tr>
</tbody>
</table>

Economics Requirements
3-6 credits of approved upper-level economics courses are required by the Smith School of Business. The specific requirements for each major are listed with the majors’ specific requirements.

Major Requirements

In addition to the Smith School of Business Bachelor of Science requirements listed above, generally another 18-24 credits are required for each major. See individual major listings in chapter 7.
A Typical Program for the Freshman and Sophomore Years

Credits

**Freshman Year**
- CORE and/or Electives: 9
- ENGL101 or equivalent: 3
- MATH *(depending on placement)*: 3

**First Semester Total**: 15

- CORE and/or Electives: 9
- COMM100, 107 or 200: 3
- MATH or BMGT230/231*: 3

**Second Semester Total**: 15

**Sophomore Year**
- CORE and/or Electives: 6
- BMGT220 *(Prereq Sophomore Standing)*: 3
- ECON200: 4
- MATH or BMGT230/231*: 3

**Third Semester Total**: 16

- CORE and/or Electives: 6
- ECON201: 4
- BMGT221 *(Prereq BMGT220)*: 3
- BMGT230 *(Prereq MATH220*), OR
- BMGT231 *(Prereq MATH141), OR
- Elective

**Fourth Semester Total**: 16

*See Freshman-Sophomore School requirements for appropriate math and statistics courses.

**Advising**

General advising for students admitted to the Smith School of Business is available Monday through Friday in the Office of Undergraduate Programs, 1570 Van Munching Hall, 301-405-2286. It is recommended that students visit this office each semester to ensure that they are informed about current requirements and procedures. Transfer students entering the university can be advised during spring, summer, and fall transfer orientation programs. Contact the Orientation Office for further information, 301-314-8217

**Specialized Academic Programs**

The Smith School offers innovative special programs through its Undergraduate Fellows Program. The Fellows program offers a series of special academic programs, or tracks which will create small communities of scholars within the larger Smith School community. Each specialized Fellows program combines opportunities for action learning and professional development with rigorous in-depth academic coursework focused on cutting edge issues affecting 21st century business.

Co-curricular activities are a key component of the Fellows program. Field trips and internships, international study trips and exchanges, speaker series, dinners, retreats and competitions will foster leadership skills and contribute to your personal and professional growth. Alumni involvement is an important aspect of Fellows programming, with Smith alumni and corporate partners contributing their time, talents and experience through sponsorship and participation in events and activities. For more information on each of the Smith Fellows Programs please see the following information and corresponding links. For information on all our Fellows Programs visit www.unet.rhsmith.umd.edu and click on the Fellows Program tab.

**Freshman Fellows**: The Freshman Fellows track provides enriched opportunities for all of our
newly admitted Smith freshmen students from the moment they step on campus for the new Freshman Fellows Orientation, followed by "Business Week" a yearly tradition to kick off the academic year with a series of social and professional events and activities. Freshman Fellows Program consists of four (4) required courses, which are completed over a student's first four semesters, plus a portfolio of co-curricular activities. For more information, please visit www.rhsmith.umd.edu/undergrad/freshmanfellows.html.

International Fellows: A special group of Freshman Fellows, Smith International Fellows are students who declare dual degrees in business and foreign language. For more information on International Fellows, including information on your foreign language advisor, please click www.rhsmith.umd.edu/undergrad/internationalfellows.html.

Accounting Teaching Scholars: The Accounting & Information Assurance Department (AIA) offers this special program opportunity for undergraduate accounting students to serve as discussion leaders and teaching assistants for the beginning accounting courses, BMGT 220 & 221. Accounting teaching scholars earn a $3,000 yearly stipend (depending on hours worked) while reviewing material in preparation for the CPA exam, and practicing organizational and delivery skills. A one-credit mentoring course is offered to prepare students for their roles as teaching assistants. For more information, please visit www.rhsmith.umd.edu/undergrad/AIATeachingScholars.html.

Business Process Fellows Program: The objective of the Business Process Fellows program is to develop excellence in operations management. Students will learn and practice business process methodologies and software tools used by leading edge companies and agencies to design and manage complex enterprises. The program will approach organizations as interdependent systems, with emphasis on statistical thinking and optimization of the enterprise. A practicum offered in conjunction with BMGT 485 Project Management course can lead to internships with partner companies. For more information, please visit www.rhsmith.umd.edu/undergrad/businessprocessfellows.html.

Electronic Marketing Fellows: This program is for students interested in how electronic channels help firms build brands and create profitable relationships with their customers. However, it is expected to be particularly attractive to Marketing and IS students. The core of the program is a dedicated section of BMGT 484 Electronic Marketing. The program will partner with Shop.org, the online retailing division of the National Retail Federation, and students will attend its national conference. For more information, please visit www.rhsmith.umd.edu/undergrad/electronicmarketingfellows.html.

Emerging CFOs: This program is designed for students interested in corporate finance and investment banking. It is designed to go more in depth into corporate finance aspects of finance, and provide students with enhanced leadership and communication skills. In addition to traditional courses taken by all finance majors, students in this program will attended a dedicated section of Financial Management, BMGT 440F. This section would bring in corporate guest speakers and a case competition. For more information, please visit www.rhsmith.umd.edu/undergrad/emergingcfos.html.

Entrepreneurship Fellows: The Entrepreneurship Fellows Program brings together talented Smith School students to create an entrepreneurial chemistry that will stimulate the creation and growth of new high-potential enterprises. The primary goal of the Entrepreneurship Fellows program is to have each student participate in launching a profitable business venture while still in school. Students will pitch the Dingman Center for Entrepreneurship for investment dollars and will demonstrate an actionable plan with a proposed return on investment. Students will also be encouraged to participate in University-hosted business plan competitions. The Dingman Center for Entrepreneurship will provide mentoring, access to capital, incubation facilities and other support for Entrepreneurship Fellows. For more information on the Dingman Center, please visit www.rhsmith.umd.edu/dingman. For more information on the Entrepreneurship Fellows Program, visit www.rhsmith.umd.edu/undergrad/entrepreneurshipfellows.html.

Financial Markets Fellows: The Financial Markets Fellows program is for students interested in investments, and in particular in learning more about the software and hardware used in the financial services industry. In addition to traditional courses taken by all finance majors, students in this program will enroll in a non-credit section of Reuters 3000X, plus a dedicated section of BMGT 343F Investments. This section would have a financial markets lab requirement -- extra sessions taught in the lab in which students would be taught to use Reuters, Bloomberg and other financial markets labs hardware and software. Students would also be eligible to participate in Winter Term study abroad trips with BMGT Honors, focused on financial markets. For more information, please visit www.rhsmith.umd.edu/undergrad/financialmarketsfellows.html.
Financial Services Fellows: This program is designed for students interested in the financial services industry, including traditional banking (loan officer, personal banking officer) and the financial services industry (financial planners, personal investment managers). The emphasis is on financial services such as traditional banking, financial planners and personal investment managers. Potential partners may include commercial banks, savings and loans, credit unions, insurance companies, and financial planning firms. In addition to traditional courses taken by all finance majors, students in this program will attend a dedicated section of BMGT 445F Commercial Bank Management. For more information, please visit www.rhsmith.umd.edu/undergrad/financialservicesfellows.html.

Global Opportunities: Global Opportunities is a selective and reciprocal academic program for language and business students interested in the world of international business, who want to gain skills outside their majors and enhance their opportunities in the global business arena. Language majors complete 15 credits in business, while business majors complete 15 credits in a single foreign language, 9 credits of which must be at the 300-400 level. Registration is expedited for students in the program, who also participate in study abroad trips, international clubs and co-curricular activities. For information on the foreign language offerings, please visit www.languages.umd.edu. For more information on Global Opportunities, please visit www.rhsmith.umd.edu/undergrad/globalopportunitiesfellows.html.

Leadership Fellows: Begins Fall 2008. Leadership Fellows is an innovative and high quality academic program aimed at selecting and developing leadership talent for business. The program is based on the philosophy that quality leadership development comes from a combination of three core elements: (1) sound leadership theories operating as guiding principles, (2) quality leadership experiences and practices, and (3) quality feedback based on scientific assessment tools. Students should have concrete organizational and leadership experiences by actively participating in activities in school, community, or business-related organizations, ideally taking on leadership positions by their second year in the program. Students will participate in a 360-assessment with mentoring and feedback from faculty and student mentors, and develop a Leadership Development Plan as part of an action-learning practicum. For more information, please visit www.rhsmith.umd.edu/undergrad/leadershipfellows.html.

Lemma Senbet Investment Fund Fellows: This program is a year-long, advanced finance program available to undergraduate finance majors in their senior year. Twelve students are selected in the spring of their junior year to participate on the fund, two as portfolio managers and ten as equity analysts. The program provides the students with the opportunity to apply what they have learned in Finance classes to actual investment decisions, through researching real companies and managing a portfolio of real money, and through reviewing the results of the decisions they make. At the end of the year-long commitment, the Fund members will present their performance to Fund donors. For more information, please visit www.rhsmith.umd.edu/senbetfund.

LTSCM Fellows: The Logistics, Transportation, & Supply Chain Management (LTSCM) Fellows Leadership Program offers students a unique opportunity for learning and community building both within the Smith School and with external LTSCM professionals. As part of a top-ranked program, students will have the opportunity to take core LTSCM classes together, participate as leaders in the LTSCM Society, visit regional LTSCM facilities and operations, sign up for a class that explores international and/or North American LTSCM processes, and network at local and annual meetings of leading professional LTSCM organizations. By combining classroom learning with opportunities in the professional community, LTSCM Junior-Senior Fellows will have a unique opportunity to build knowledge of the LTSCM profession and create a foundation for a networked career. For more information, please visit www.rhsmith.umd.edu/undergrad/LTSCMfellows.html.

Music Management Fellows: Begins Fall 2008. The objective of the Music Management Fellows program is to develop students’ interests and capabilities in the specialized management functions involved in the business of music management, including music marketing and promotions, production and distribution, broadcasting, performance and production logistics in event and tour management, and funding and management of venues and institutions. Students will interact with and learn from experts in the field by participating in the design and production of recorded music, live events and programs, and through specialized clinics and internships focused on different genres and performance environments: Music & Entertainment; Performing Arts. For more information, please visit www.rhsmith.umd.edu/undergrad/musicmanagementfellows.html.

Quantitative Marketing Fellows: Begins Fall 2008. Quantitative marketing is an approach to
marketing that relies on computer based models and statistical, econometric and data mining methods to understand and analyze why, which, when and how much products and services are being bought by consumers and firms. The aim is to make better forecasts, to learn about new marketing opportunities, to enable managers to ask "what if" questions, and to make better decisions on pricing, segmentation, advertising and promotions, distribution, positioning, customer relationship management, and product and service design, among others. For more information, please visit www.rhsmith.umd.edu/undergrad/quantitativemarketingfellows.html.

**QUEST (Quality Enhancement Systems and Teams):** A collaborative partnership with the A. James Clark School of Engineering and the College of Computer, Mathematical and Physical Sciences, the QUEST program is an innovative three-year quality management program with a dynamic learning environment. Grounded in team-based courses led by an interdisciplinary faculty, the program offers students the opportunity to study integration of quality in the workplace while applying the knowledge and skill-set they have gained from their major in the field of engineering, business or computer science. QUEST graduates enter the work force excelling in teamwork, customer value management, process and product design, problem-solving, project management and customer satisfaction. For more information, please visit www.rhsmith.umd.edu.quest/.

**Research Fellows:** Research Fellows is a one-year program offering students paid opportunities to work with one of our outstanding Smith Faculty members on their research. Research fellows complete up to a total of 250 hours/semester, which can be allocated as 18 hours/week for one semester or 200-400 hours, to be established by the faculty project supervisor. Compensation is $5,000/year or $2,500/semester, depending upon hours worked. Research Fellows will present their work at the annual Research Day each spring. Minimum one-year commitment, may be renewed. For more information, please visit www.rhsmith.umd.edu/undergrad/researchfellows.html.

**Smith Technology Integration Fellows:** STI Fellows perform a variety of duties, which may include serving as teaching assistants with technology-intensive classes, or as research assistants, executing targeted technology development projects for use in instruction or research, assisting faculty and others with targeted projects involving software such as Oracle or .NET. Some project assignments will require experience using specific software platforms and will provide technical support for courses, assist faculty with tutorials and demonstrations, and assist student teams in projects. Students working on projects which require specific technology skills will be eligible to attend vendor hands-on training sessions. Projects will generally be defined as one semester in duration but could extend over the academic year. Compensation for work on projects is $10/hour, with projects ranging from 200-400 hours, which can be spread over a semester or a year. Projects may be renewable for additional semesters. For more information, please visit www.rhsmith.umd.edu/undergrad/sti.html.

**Sports Management Fellows:** The Sport Management Fellows program focuses on the worldwide enterprise of sport and the prominence of organized sports at every level in collegiate and professional sports environments, together with the significance of auxiliary industries in sports apparel and equipment, television contracts and other ancillary products and services. The curriculum includes an internship built into the BMGT 485 Project Management course which will provide students an opportunity to focus on the particular issues in the sports industry, and prepare them for various roles in sport management in both the collegiate and professional sport environments and private sector enterprises. For more information, please visit www.rhsmith.umd.edu/undergrad/sportmanagementfellows.html.

**STARS:** The mission of the STARS program is to encourage and attract first generation and under represented students to the study of business, to prepare them for college, and to encourage them to make the University of Maryland their #1 choice. Once admitted, the program provides a supportive network for academic success leading to graduation, and then welcomes them back as alumni contributors to the Smith Community. The challenge is to identify and support outstanding students interested in studying business, and to work together with their schools and with various access programs to prepare for admission to college. To achieve this goal, Smith School undergraduates have developed a corps of peer-mentors who provide mentoring and academic support to high school students, as well as to students already admitted to the University of Maryland who seek admission to the Smith School. Student mentors participate in visits to high schools and work with sponsored college access programs. They visit high-schools at off-campus sites and host these students during campus visits and educational programs such as the annual High-School-to-College Workshops and Finance Field Day. A one-credit course in Intergroup Communication is being considered as a vehicle for building mentoring skills and coordinating volunteer activities. For more information, please visit www.rhsmith.umd.edu/undergrad/starsnew.html.
College Honors Program

The Smith School Honors program, which is part of the Smith School's Fellows Program, offers students with superior academic achievements special opportunities and resources, including the opportunity to participate in cutting-edge research on business issues, and to graduate with honors. Students in the honors program take their upper-level BMGT core courses in small, seminar-style honors sections, which allow in-depth exploration of business topics in marketing, finance, management and organization, business law, and policy and strategy. The Smith School Honors Program provides both a non-thesis and a thesis option, in which students work on an original research project under the supervision of a Smith School faculty member. Admission to the Smith School Honors Program is competitive. Students are selected on the basis of the following requirements:

- Minimum 3.5 cumulative grade point average
- Minimum 45 credit hours earned
- Completion of all BMGT pre-requisite courses by the end of Spring semester:
  - Principles of Accounting I and II: BMGT 220 and 221
  - Business Statistics: BMGT 230 (or 231)
  - Calculus: MATH 220 or 140
  - Principles of Micro- and Macro- Economics: ECON 200 and 201

The application to the BMGT Honors program includes a personal essay and two letters of recommendation from faculty. The BMGT Honors application can be downloaded from the Smith School website: http://unet.rhsmith.umd.edu.

Admission to the Smith School Honors Program takes place once a year in the Spring semester. More details are available at www.rhsmith.umd.edu/undergrad/businesshonors.html.

Approved Student Societies and Professional Organizations

Honor Societies

Beta Gamma Sigma: National scholastic honorary society in business administration. To be eligible students must rank in the upper 5 percent of their junior class or the upper 10 percent of their senior class in the Smith School of Business. Students are eligible the semester after they have earned 45 credits at the University of Maryland, College Park, and have earned a total of 75 credits.

Student Professional Organizations

Students may choose to associate themselves with one or more professional organizations. Visit www.rhsmith.umd.edu/susa for more details and a complete list of organizations.

Awards

Student Awards

For high academic achievement, students in the School may receive recognition by the Dean's List and Beta Gamma Sigma, National Business Honor Society.

Scholarships

For details on available scholarships, please visit www.unet.rhsmith.umd.edu.

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Undergraduate Catalog 2007-2008

COLLEGE OF CHEMICAL & LIFE SCIENCES (CLFS)

1302 Symons Hall, 301-405-2080
www.chemlife.umd.edu

Dean: Norma Allewell
Associate Dean(s): Robert Infantino, Jr., Arthur Popper
Assistant Dean(s): Lisa Bradley-Klemko, Joelle Presson

Undergraduate Research and Internship Programs - Director: Katerina (Kaci) Thompson
Undergraduate Admissions Counseling and Recruitment - Coordinator: Eden M. Garosi

The undergraduate degree programs in the College of Chemical and Life Sciences are:
- Chemistry
- Biochemistry
- Biological Sciences
- Environmental Sciences & Policy

The majors in Chemistry and Biochemistry are housed in the Department of Chemistry and Biochemistry and are broadly based to prepare students for employment, graduate school, or professional school. The Biological Sciences major is jointly offered by the departments of Biology, Cell Biology and Molecular Genetics, and Entomology. Biological Sciences students may study broadly in General Biology, or specialize in upper level course work in Cell Biology and Genetics, Ecology and Evolution, Microbiology, or Physiology and Neurobiology. A double major program with the College of Education provides certification to teach High School Chemistry or Biology. The College grants degrees in the Biodiversity and Conservation specialization in the Environmental Science and Policy major.

Opportunities for Research

Opportunities are available across the College and off-campus for undergraduates to participate in basic and applied research projects, and research experience is encouraged for all undergraduate students. Off campus opportunities include National Institutes of Health, Food and Drug Administration, National Institute of Standards and Technology, The Smithsonian, the National Zoo, private biotechnology firms, and many others. The College has special offerings in all of the campus-wide academic programs such as Gemstones, Honors, College Park Scholars, and Freshman Learning Communities.

Admission Requirements

Students applying for admission should consult the University Admissions section in Chapter 1 for general information about admissions requirements and recommended courses. Students who plan to enter an undergraduate program in the College of Chemical and Life Sciences should include the following subjects in their high school program: at least two units in the biological sciences and physical sciences (chemistry, physics); and four units of mathematics algebra, geometry, pre-calculus and calculus. Math and science coursework at the honors/AP/IB level is strongly encouraged.

For further information about admissions to the College of Chemical and Life Sciences, contact Eden M. Garosi, Coordinator, Undergraduate Admissions Counseling and Recruitment, 301-314-8375; egarosi@umd.edu and chemlife-inquiries@umd.edu.

Undergraduate Degree Requirements/Degree Options

See entries under individual degree programs in Chemistry and Biochemistry, Biological Sciences, and Environmental Sciences.
Advising

Entering students are advised by professional advisors in the College’s Student Services Office. When a student has selected a major or specialization and successfully completed the entry level courses in Chemistry, Mathematics, and the Biosciences, (s)he is assigned to a faculty advisor. All students must meet with an advisor at least once a semester. For information on advising in the pre-professional programs offered at College Park, see chapter 7.

Departments and Centers

The College of Chemical and Life Sciences is home to four academic departments. The Chemistry Department offers the undergraduate degrees in Chemistry and in Biochemistry. The undergraduate Biological Sciences Degree is a joint offering by the three Biological Sciences Departments. These are the Biology Department, the Cell Biology and Molecular Genetics Department, and the Entomology Department.

Minors

The College of Chemical and Life Sciences does not offer minors.

Living-Learning Programs

College Park Scholars Life Sciences
Director: Dr. Lee Hellman
Assistant Director: Dr. Marcia Shofner
1119 Cumberland Hall, 301-405-0528

The College sponsors the College Park Scholars Chemical and Life Sciences program for entering freshman who are admitted by invitation during the admissions process. Students meet weekly in colloquia with faculty where they learn more about the diverse areas of study in the life sciences. Scholars are also clustered in course sections which fulfill major and general education requirements. International travel-study course opportunities led by College faculty are available as a part of the program. Students create a community of living and learning in a specially-equipped residence hall.

Specialized Academic Programs

Joint Biomedical Research Program with the University of Maryland School of Medicine
Students may apply for the joint Biomedical Science Research Program between the Department of Medical and Research Technology (DMRT), University of Maryland School of Medicine, and the College of Chemical and Life Sciences. Students who have successfully completed 60 credits of prerequisite courses at the University of Maryland, College Park may be considered for the program. Beginning in the junior year within the UM School of Medicine, students will develop skills in a variety of biotechnology methodologies as well as become familiar with the operation of analytical instruments used in clinical laboratories, biomedical science, and biosafety and quality assurance issues. Interested students should call the DRMT Admissions Office at 410-706-7664.

College Honors Program

Students in the College of Chemical and Life Sciences participate in Gemstones, the University Honors program and College Park Scholars, and research-intensive departmental honors programs.

Departmental Honors
Students may apply to participate in research-based departmental honors programs in the each of the departments of the College. Based on the student’s performance in research and defense of a written thesis, the department may recommend candidates for the appropriate degree with Departmental Honors or Departmental High Honors. Successful completion of departmental honors will be recognized on a student’s academic transcript and diploma. Participation in the University Honors program is not required for entry into a departmental
honors program. See departmental listings or consult with an academic advisor in the College for more information.

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COLLEGE OF COMPUTER, MATHEMATICAL, AND PHYSICAL SCIENCES (CMPS)

3400 A.V. Williams, 301-405-2677
www.cmps.umd.edu
cmpsque@deans.umd.edu (for CMPS advising questions)
Dean: Stephen Halperin
Associate Dean(s): Ronald L. Lipsman (Senior Assoc. Dean), David C. Lay

Nationally recognized for our education, research, faculty and students, the College of Computer, Mathematical and Physical Sciences is a critical educational and scientific resource benefiting the region and the nation. The College offers every student a high-quality, innovative, and cross-disciplinary educational experience. Strongly committed to making studies in the sciences available to all, the College actively encourages and supports the recruitment and retention of women and minorities.

Our students have the opportunity of working closely with first-class faculty in state-of-the-art labs, both on and off campus, on some of the most exciting problems of modern science and mathematics. We have developed courses to reflect the evolving nature of IT subjects and the rapidly changing world of science and mathematics. As a new approach to undergraduate education, multiple tracks are offered within majors, including tracks for future teachers and tracks with an emphasis on computation.

Students participate in Departmental Honors programs, Corporate Scholars, the Gemstone program, Quest, and College Park Scholars. They apply their lab and classroom skills through internships at area companies. Excellent advising and career services are in place to help our undergraduates transition to graduate programs, public service, or private sector commerce. Our highly skilled graduates pursue careers in a great many fields and professions.

Admission Requirements

All students who meet the admissions standards described in Chapter 1 of this catalog are invited to consider a major or a minor in one of the Bachelor of Science degree programs of the College. Applications of prospective freshmen and transfer students are evaluated by the Office of Undergraduate Admissions (www.uga.umd.edu). All current University of Maryland students in good academic standing are welcome to contact the CMPS Dean's Office at 301-405-2677 or cmpsque@deans.umd.edu.

Recruitment

3400 A.V. Williams 301-405-2677
www.cmps.umd.edu/undergraduate/prospective_students.htm
Asst. Director for Recruitment: Andrew Janosko (ajanosko@umd.edu)

The College's Assistant Director for Recruitment serves as a resource and contact person for prospective students interested in bachelor degrees and also serves as a liaison to the Office of Undergraduate Admissions.

Undergraduate Degree Requirements/Degree Options

Graduation Requirements

1. A minimum of 120 semester hours with at least a C average is required of all Bachelor of Science degrees from the College.
2. Forty-three credit hours that satisfy the general education CORE program requirements of the University. In some instances, courses taken to satisfy these requirements may also be used to satisfy major requirements.

3. Major and supporting coursework as specified under each department or program.

4. The final 30 semester hours must be completed at College Park. Occasionally, the Dean may waive this requirement for up to 16 of the 30 credits cited. Such a waiver is considered only if the student already has 75 credits in residence.

5. Students must be enrolled in the program in which they plan to graduate by the time they register for the last 15 hours.

**Advising**

The Undergraduate Education Office, 3400 A.V. Williams Building, 301-405-2677, centrally coordinates advising and the processing and updating of student records. Inquiries concerning university regulations, transfer credit, Dean's Exceptions and other general information should be addressed to this office. Specific departmental information in relationship to majors is best obtained directly from academic departments. Each department in the College requires semester advising for registration and future course planning. Advisors in departments are available on walk-in and appointment basis. Students are also encouraged to contact the office by e-mail at cmpsqdeans.umd.edu. Assistance is also available by phone at 301-405-2677.

**Departments and Centers**

The following departments, programs and research units comprise the College:

- Department of Astronomy
- Department of Computer Science
- Department of Geology
- Department of Mathematics
- Department of Atmospheric and Oceanic Science
- Department of Physics
- Center for Scientific Computation and Mathematical Modeling
- Applied Mathematics and Scientific Computation
- Earth System Science Interdisciplinary Center
- Chemical Physics Program
- Physical Sciences Program
- Statistics Program
- Institute for Advanced Computer Studies
- Institute for Physical Sciences and Technology
- Institute for Research in Electronics and Applied Physics (joint with College of Engineering)

**Degree Programs**

The following Bachelor of Science (B.S.) degree programs are offered to undergraduates by the departments and programs of the College: Astronomy, Computer Engineering, Computer Science, Geology, Mathematics, Physics, and Physical Sciences. In addition, Geology sponsors one of the areas of concentration in the Environmental Science and Policy program.

**Minors**

The College offers Minors in the following areas:

- Astronomy
- Computer Science
- Surficial Geology
- Earth Material Properties
- Earth History
Minors in the College offer students in all disciplines the opportunity to pursue a structured program of study in a field outside their major. Each student who successfully completes a minor will have the accomplishment noted on their transcript. Consult departmental advisors and websites for further information. [www.cmps.umd.edu/undergraduate/programs.htm](http://www.cmps.umd.edu/undergraduate/programs.htm)

**Living-Learning Programs**

**College Park Scholars**
[www.scholars.umd.edu](http://www.scholars.umd.edu)

CPS in Science, Discovery & the Universe Co-Director: Jay Frogel
CPS in Earth, Life & Time Director: Thomas R. Holtz, Jr.

The College co-sponsors two College Park Scholars programs, Science, Discovery & the Universe and Earth, Life & Time. These living/learning programs focus around the academic disciplines of the faculty, space sciences (in particular planetary science) and the historical natural sciences (in particular paleontology and evolutionary biology), respectively. In these two-year programs for incoming freshmen, students are brought together around common intellectual interests. The program seeks to inspire students to develop their interests and intellectual capacity by building a community where everyone has shared interests in scholarly pursuits. The Scholars program allows students to experience a small college environment, in close contact with faculty who are working at the forefront of their fields of expertise.

**Specialized Academic Programs**

**CMPS Corporate Scholars Program**
3400 A.V. Williams Building, 301-405-2677
[www.cmps.umd.edu/csp/index.htm](http://www.cmps.umd.edu/csp/index.htm)
Contact: Lawrence Liff at lliff@umd.edu

The Corporate Scholars Program is a combined internship and scholarship program that provides highly talented CMPS students with work experience related to their fields of study. The program is a unique endeavor by the College to expand and improve our students' education and to build better relationships with local corporations.

**CMPS Undergraduate Research Experiences**
[www.cmps.umd.edu/undergraduate/research.htm](http://www.cmps.umd.edu/undergraduate/research.htm)

Internships are valuable. Research is fascinating. Students can experience scientific discovery first hand. Knowledge learned in class is used and applied. Students learn the scientific method in a real experimental setting, and they see how new scientific knowledge is created. Be a part of the science discovery in CMPS, which places the college among the top 15 public and private universities nationwide. A research experience provides a first-hand route into professional problem-solving and may lead to publication. It gives students personal contact with faculty, postdoctoral fellows and graduate students, and a real picture of graduate school. Employers and graduate schools look for research experience in applicants.

**College Honors Program**

Undergraduate honors are offered to students in the Physical Sciences Program and the departments of Astronomy, Computer Science, Geology, Mathematics and Physics. Specific information is provided under the individual program descriptions.

**Dean's List.** A list of all students who have passed at least 12 hours of academic work in the preceding semester with an overall average grade of at least 3.5.
Associate Dean's Commendation. A list of all students who have passed at least 12 hours of academic work in the preceding semester with an overall average grade between 3.0 and 3.5.

Financial Assistance

Scholarships

www.cmps.umd.edu/undergraduate/scholarships.htm

For currently enrolled students the College accepts merit and need-based award and scholarship applications on the College Scholarship Application Form. Students should complete one form only and submit either electronically or via surface mail. Applicants will be considered for all merit and need-based scholarships administered by the College for which they are eligible. Eligible students will also be contacted by email with information on special programs. For best consideration, College scholarship applications for each academic year should be submitted by May 10 for the school year beginning the following September.

Departmental scholarships may have different deadlines. For additional information visit the college web site.

Awards

J. R. Dorfman Prize for Undergraduate Research

www.cmps.umd.edu/undergraduate/dorfman_prize.htm

An award presented at the spring Academic Festival for the best research project conducted on or off campus by a current College undergraduate major.

Research Units

Institute for Advanced Computer Studies

2119 A.V. Williams Building, 301-405-6722
www.umiacs.umd.edu
Professor and Director: V.S. Subrahmanian

The faculty at the Institute for Advanced Computer Studies conduct fundamental research at the interface between computer science and other scientific disciplines supported by a state-of-the-art computing infrastructure. These interdisciplinary research programs offer opportunities for thesis research and classroom instruction, with a planned new focus on human-computer interaction, bioinformatics and computational biology. The Institute is internationally known in computer vision and graphics, parallel and distributed computing, information visualization and educational technologies, natural language processing and computational linguistics, software engineering, and multimedia and internet computing. Courses and thesis research guidance by Institute faculty are provided under the auspices of the labs, centers, and the academic departments affiliated with the Institute.

Institute for Physical Science and Technology

4211 Computer and Space Sciences Building, 301-405-4877
www.ipst.umd.edu
Professor and Director: Rajarshi Roy

The faculty members of the Institute for Physical Science and Technology are engaged in the study of pure and applied science problems that are at the boundaries between those areas served by the academic departments. Areas of emphasis include applied mathematics and scientific computation, statistical physics and chaotic dynamics, biophysical and chemical physics, materials science and nanotechnology, atomic, molecular, optical and plasma physics, and space and upper-atmospheric physics. These interdisciplinary problems afford challenging opportunities for thesis research and classroom instruction. Courses and thesis research guidance by Institute faculty are provided either through the graduate program in chemical physics, the scientific computation and mathematical modeling program, or under the auspices of other departments.

Institute for Research in Electronics and Applied Physics

Energy Research Facility, 301-405-4951
The Institute for Research in Electronics and Applied Physics (IREAP) is jointly administered by the College and the A. James Clark School of Engineering. The faculty members in IREAP study diverse scientific problems that are on the boundaries between physics and engineering, and teach relevant courses in the College and Engineering Departments. IREAP conducts experimental and theoretical research in nonlinear dynamics (chaos), high-temperature plasma physics, plasma spectroscopy, relativistic microwave electronics, high-brightness charged particle beams, free-electron lasers, laser-plasma interactions, ion beam microfabrication techniques, and microwave sintering of advanced materials. IREAP is recognized internationally as a leading university research center in these areas of research. We actively encourage undergraduate participation in our research program through independent study, special projects, and internships under faculty supervision.

Center for Automation Research
4417 A.V. Williams Building, 301-405-4526
www.cfar.umd.edu
Professor and Director: Ramalingam Chellappa

The Center for Automation Research is part of the Institute for Advanced Computer Studies. Its faculty conduct fundamental research in areas related to spatial data, computer graphics, image processing, and computer vision. This interdisciplinary research contributes to classroom instruction, and provides opportunities for thesis research. Courses and research guidance by the Center's faculty are conducted under the auspices of the laboratories and academic departments affiliated with the Center.

Earth System Science Interdisciplinary Center
2207 Computer and Space Sciences Building, 301-405-5599
www.essic.umd.edu
Professor and Director: Antonio J. Busalacchi

ESSIC is a joint center between the Departments of Atmospheric and Oceanic Sciences, Geology, and Geography together with the Earth Sciences Directorate at the NASA Goddard Space Flight Center. The goal of the Center is to enhance our understanding of how the atmosphere-ocean-land-biosphere components of the Earth interact as a coupled system. This is accomplished via studies of the interaction between the physical climate system (e.g., El Nino) and biogeochemical cycles (e.g., greenhouse gases, changes in land use and cover). The major research thrusts of the Center are studies of Climate Variability and Change, Atmospheric Composition and Processes, and the Global Carbon Cycle (including Terrestrial and Marine Ecosystems/Land Use/Cover Change). The manner in which this research is accomplished is via analyses of in situ and remotely sensed observations together with component and coupled ocean-atmosphere-land models. Together this provides a foundation for understanding and forecasting changes in the global environment and assessing regional implications. Data assimilation and regional downscaling provide the means by which the observations and models are linked to study the interactions between the physical climate system and biogeochemical cycles from global to regional scales. Courses and research guidance by Center faculty are provided through the Departments of Geography, Geology and Atmospheric and Oceanic Sciences, or under the auspices of College interdisciplinary listings.

Center for Scientific Computation and Mathematical Modeling
4149 Computer Science Instructional Center, 301-405-0648
www.cscammm.umd.edu
Professor and Director: Eitan Tadmor

The ability to compute at tremendous speeds with gigantic data sets is enabling advances in nearly every discipline. Scientific computation plays a leading role in the study of protein folding, climate evolution, weather prediction, star formation, plasma turbulence, quark-gluon interactions and high-temperature superconductivity. At the Center for Scientific Computation and Mathematical Modeling, graduate students and faculty are working together to develop and to understand fundamental computational techniques, algorithms and analytical tools, and to apply this understanding to outstanding scientific problems in a variety of fields. Undergraduate research opportunities exist for students who are interested in learning how to use computers to understand how the world works.

Materials Research Science and Engineering Center
2120 Physics Building, 301-405-8349
www.mrsec.umd.edu
Professor and Director: Ellen Williams

Part of a national network of NSF-funded Materials Research Centers, faculty activities in MRSEC's mandate include materials research, industrial collaborations and educational outreach. Faculty research focuses on polarization dynamics in ferroelectric thin films, surface nanostructures-from fluctuations to driven systems and metal oxides with high spin polarization. MRSEC actively encourages undergraduate participation in their research program through participation in independent study, special projects and internships under faculty supervision and pays special attention to encouraging women and minorities to enter science.

**Center for Superconductivity Research**

Physics Building, 301-405-6129
www.csr.umd.edu
Professor and Director: Richard L. Greene

The Center for Superconductivity Research (CSR) conducts interdisciplinary research in the fields of superconductivity, magnetism, ferroelectricity, the synthesis and characterization of advanced materials, the development of scanning-probe microscopes, and quantum computing. Their work impacts technology areas such as communications, digital and analog electronics, medical instrumentation, and computers. The CSR consists of approximately 12 scientists who are also teaching faculty members in the Departments of Physics, Electrical Engineering, Chemistry, or Materials Science, as well as another 18 scientists and engineers who are visitors, post-docs, or staff members. Approximately 30 graduate students are working on their research dissertation projects with members of the CSR faculty. The CSR is also dedicated to supporting undergraduate research, with more than 20 undergraduates doing research projects each year.

**Student Engagement and Service Units**

**STAND Science and Technology: Addressing the Need for Diversity**

3400 A.V. Williams Building, 301-405-2677
www.cmps.umd.edu/stand/index.htm
Director: Joelle Davis Carter

The College implemented the STAND program to address the longstanding national need to increase the number of underrepresented groups, including Blacks, Latinos/as, Native Americans and women in the computer, earth, mathematical and physical sciences. STAND serves as the umbrella for the College's undergraduate and graduate diversity activities. STAND supports students by creating a sense of community, rewarding excellence through scholarships and fellowships, instilling the importance of community involvement through recruitment and outreach activities, building lasting relationships through mentoring, and preparing students for success in college, graduate school, professional careers and beyond.

Current STAND programs include: SCORE (Student Community for Outreach, Retention and Excellence), the PRIME Scholarship program, the STEM Mentoring program, and the LSAMP Undergraduate Research program. These opportunities enable students to develop leadership and academic skills, engage in research, and take an active role in enhancing the diversity goals of CMPS through outreach and service.

**CMPS Internship and Career Services**

3400 A.V. Williams Building, 301-405-2677
www.cmps.umd.edu/careers/index.htm

The College provides students with an educational experience that will help them succeed in their chosen professions. While the classroom provides academic preparation, the College in cooperation with the University of Maryland's Career Center, assists students with career related considerations. For students majoring in astronomy, computer science, geology, mathematics, physical sciences and physics, the CMPS Career Connection eNewsletter is a valuable resource listing both internships and full-time positions, while the CMPS 497 Internship Seminar provides an academic component for the internship experience. Internships are an invaluable tool for career exploration, allowing students to build relevant resumes while still in school. Internships also often develop into permanent jobs after graduation.

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COLLEGE OF EDUCATION (EDUC)

1204 Benjamin Building, 301-405-2344  
www.education.umd.edu  
coe-student-services.umd.edu  
Dean: Interim Dean: Donna L. Wiseman  

The College of Education is a professional college committed to advancing the science and art of teaching/learning, including the practices and processes which occur from infancy through adulthood in both school and non-school settings. The College's mission is to provide preparation for current and future teachers, counselors, administrators, educational specialists, and other related educational personnel, and to create and disseminate the knowledge needed by professionals and policy makers in education and related fields.

The college programs prepare educators, counselors, psychologists, administrators, researchers, and educational specialists. Graduates work with individuals from infancy through adulthood in schools, community agencies, colleges and universities. Educational programs are accredited/approved by the following: National Council for Accreditation of Teacher Education, Maryland State Department of Education, American Psychological Association, Council on Accreditation of Counseling and Related Educational Professions, and Council on Rehabilitation Education. Accreditation provides for reciprocal certification with most other states that recognize national accreditation.

The Maryland State Department of Education (MSDE) issues certificates to teach in the public schools of the state. In addition to graduation from an approved program, MSDE requires satisfactory scores on the Praxis I and II exams for certification. At the time of graduation, the College informs MSDE of the graduate's eligibility for certification. Under Maryland law, criminal background checks may be required and considered by the State Department of Education in the awarding of teaching certification, and by employers before granting employment in the teaching field. Certification may be denied or revoked for individuals who have been convicted of crimes of violence and/or child abuse.

Special Advantages and Facilities

Students in the College of Education have the opportunity to work with an exemplary faculty. Among our ranks are nationally known faculty researchers who have made significant contributions to advancing theory and improving professional practice. In addition, the College's strategic location provides students with research opportunities that are unparalleled. Students can study and conduct research in school districts with highly diverse populations. The region also provides access to several research libraries, government agencies, not-for-profit organizations, and educational associations.

The College of Education offers many special resources and facilities to students, faculty, and the community, including the following centers:

- The **Center for Mathematics Education** provides a mathematics laboratory for undergraduate and graduate students. Occasionally there are tutoring services for children and adolescents. These services are offered in conjunction with special graduate and undergraduate courses in elementary and secondary school mathematics. Center faculty are engaged in research in mathematics education, serve as consultants to school systems and instructional publishers, and provide in-service teacher education in addition to graduate degree programs.

- The **Center for Young Children** is part of the Institute for Child Study/Department of Human Development in the College of Education. It offers a creative learning...
experience for children three, four, and five years old whose parents are affiliated with the University. The Center engages in child study, curriculum development, and teacher training. Its research and observation facilities are available to parents, faculty, and other persons concerned with the care and education of young children.

- The Maryland Institute on Minority Achievement and Urban Education is built on a formal partnership with the Maryland State Department of Education and serves Maryland school districts, especially Prince George's County and Baltimore City, which are majority minority districts with serious performance challenges. It provides outreach services to help schools identify, implement and evaluate strategies to improve student achievement. Drawing on a structure that taps into the extensive intellectual capital of the College of Education, the institute will focus university faculty research and outreach to teachers, students, and administrators who are on the front lines battling one of the biggest problems in urban schools today—the minority achievement gap.

**Admission Requirements**

**Admission to Teacher Education Professional Course Work**

Applicants to the University of Maryland who have declared an interest in education are admitted to a department in the College. All majors must meet the selective admission requirements for full admission into the College of Education in order to enroll in course work in the professional teacher education degree program.

For full admission into a teacher education major, a student must (1) complete the English and math lower-level fundamental studies (six credits) with a grade of C or better; (2) earn 45 semester hours with an overall cumulative grade point average of at least 2.5 on a 4.0 scale; (3) submit a personal goal statement that indicates an appropriate commitment to professional education; (4) have prior experiences in the education field; (5) submit three letters of recommendation/reference; (6) submit a signed copy of the College of Education Technical Standards Acknowledgment Form, and (7) have passing scores on the Praxis I.

Admission application forms are available in Room 1204 of the Benjamin Building. Only those who are admitted are able to enroll in the professional education sequence. An overall grade point average of 2.5 must be maintained after admission to Teacher Education to continue in the professional education programs. A Teacher Education Appeals Board reviews appeals from students who do not meet the admissions, advancement, or retention criteria. Consult the Student Services Office (Room 1204 Benjamin Bldg.) for policies and procedures regarding appeals.

Criteria for admission to the Teacher Education program apply to any teacher preparation program offered by the University of Maryland. Thus, students desiring a major in music or physical education should apply to the College of Education for admission to the professional program in Teacher Education. Students who are not enrolled in the College of Education but who, through an established cooperative program with another college are preparing to teach, must meet all admission, scholastic and curricular requirements of the College of Education. The professional education courses are restricted to degree-seeking majors who have met College of Education requirements for admission and retention.

**Gateway Requirements for Early Childhood and Elementary Education Programs**

The Early Childhood and Elementary Education programs are Limited Enrollment Programs, which admit students on a space-available basis. In addition to the requirements for admission to teacher education that are listed above, early childhood and elementary education majors must meet the following gateway requirements:

1. Completion of a four-credit CORE laboratory physical science, a four-credit CORE laboratory biological science, Elements of Numbers and Operations (MATH 212), and Elements of Geometry and Measurement (MATH 213) with a minimum cumulative GPA in these four courses of 2.7

2. Completion of Introduction to Teaching (EDCI 280) or Exploring Teaching in Early Childhood (EDHD220) with a grade of B or better
3. Passing scores on the Praxis I: Academic Skills Assessments (Students will be required to meet the individual cut-off scores for each of the three Praxis I assessments. A composite score will not be accepted for admission.)

Students admitted to the University as freshmen may be directly admitted to the Early Childhood or Elementary Education programs through the end of the schedule adjustment period, second semester, freshman year. It is anticipated that no more than 50% of the available places in each program will come from these groups. In the event that the number of qualified applicants exceeds the available program slots, the students with the most competitive records from high school will gain direct admission to the College of Education. Students who are admitted to campus, but not directly admitted to Education, will be advised in the Division of Letters and Sciences.

At the time of admission, each student directly admitted into the College of Education will enter into a contract that states the requirements for maintaining enrollment, including the time or credit level by which the gateway requirements must be completed.

All other prospective early childhood and elementary education majors may apply for admission during the Spring of the year in which they complete 60 credits including the coursework and gateway admission criteria listed above. Students with advanced credit (60 or more hours) may apply for admission when they meet the gateway requirements. Applications will be reviewed in the Spring, and students who have completed the gateway requirements will be admitted competitively based on GPA, on a space-available basis. The minimum admission GPA for internal and external transfers will be 3.0 for Elementary Education and 2.75 for Early Childhood. Students with the required gateway courses and lower grade point averages will be considered as space is available.

Students may be granted admission to the early childhood or elementary education limited enrollment programs only once. Therefore, once a student has been admitted to the limited enrollment program, if the student is later dismissed for failure to complete the gateway requirements in a timely manner, the student may not reapply to the program.

Detailed information regarding admission to the Teacher Education program, including the gateway requirements for Early Childhood or Elementary Education, is available in the Student Services Office, Room 1204 Benjamin (301-405-2344).

**Undergraduate Degree Requirements/Degree Options**

The College of Education confers the degrees of Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) depending on the amount of liberal arts study included in a particular degree program. Minimum requirements for graduation are 120 semester hours. Specific departmental program requirements for more than the minimum must be fulfilled.

In addition to the university’s general education requirements (CORE) and the specific requirements for each curriculum, the College requires that all majors complete a Foundations of Education course (e.g., EDPL 301) and, depending upon the teacher education major, six to twelve semester hours of reading course requirements. A grade of C or better is required in all pre-professional and professional course work required for the major. An overall grade point average of 2.5 must be maintained after admission to Teacher Education. A grade of S is required in the student teaching portion of the yearlong internship. All teacher candidates are required to obtain satisfactory evaluations on the College of Education Technical standards and attain qualifying scores for the State of Maryland on the Praxis I and Praxis II assessments. Detailed information about the Praxis assessments is available in the Student Services Office, Room 1204 Benjamin.

Exceptions to curricular requirements and rules of the College of Education must be recommended by the student's advisor and department chairperson and approved by the Dean.

**Yearlong Internship (Student Teaching)**

The yearlong internship, which is the culminating experience in the teacher preparation program, takes place in a collaborating school (i.e., partner school, PDS -- Professional Development School). The yearlong internship consists of one semester of methods and one
semester of student teaching. Each teacher candidate's internship will vary according to the unique attributes of their teacher education program. All internships will provide teacher candidates with the opportunity to integrate theory and practice through a comprehensive, reality-based experience. The yearlong internship is arranged through the College of Education in collaboration with the school site coordinators (i.e., PDS Coordinators) and the designated schools in the partnership.

The yearlong internship is a full-time commitment. Interference with this responsibility because of employment or course work is strongly discouraged. Teacher candidates assigned to schools for this internship are responsible for their own transportation and living arrangements and should be prepared to travel to whichever school has been assigned. Student teaching requires a special fee. Please refer to the Schedule of Classes under Financial Information: Fees.

In order to receive a yearlong internship placement, all teacher candidates must make application the semester prior to the beginning of the methods portion of the internship year. Prospective student teachers must have been admitted to Teacher Education and have completed all prerequisites. Prior to assignment, all students in teacher preparation programs must have: (1) maintained an overall grade point average of at least 2.5 with a minimum grade of "C" in every course required for the major; (2) satisfactorily completed all other required course work in their program; (3) received a favorable recommendation from their department; (4) attained qualifying scores for the State of Maryland on the Praxis I and Praxis II assessments; (5) applied for a year-long internship placement through the College of Education during the semester prior to the internship year; (6) received favorable ratings from prior supervised experiences in school settings; (7) received favorable evaluations on the College of Education Technical Standards; and (8) submitted a criminal history disclosure statement. In addition, state law gives the local school to which the student teacher is assigned the discretion to require a criminal background check prior to placement. Early Childhood Education students must have a certificate indicating freedom from tuberculosis and proof of immunization.

**Note:** All registrations in the student teaching portion of the yearlong internship, regardless of whether a student withdraws or takes a leave of absence, will be counted as an attempt under the campus repeat policy. Only two registrations will be allowed. After two registrations, further attempts at student teaching must be approved by the department and the school system professionals involved in the teacher candidate's internship experience. This policy applies only to students in the College of Education during the student teaching portion of the yearlong internship.

**College of Education Technical Standards**

All candidates in the UM professional preparation programs are expected to demonstrate that they are prepared to work with children and youth in educational settings. This preparation results from the combination of successful completion of university coursework and field/internship experiences and the demonstration of important human characteristics and dispositions that all educators should possess. These characteristics and dispositions, the College of Education Technical Standards, are grouped into four categories: Communication/Interpersonal Skills, Emotional and Physical Abilities, Cognitive Dispositions, and Personal and Professional Requirements.

Technical standards serve several important functions, including, but not limited to: (a) providing information to those considering pre K-12 and community professional careers that will help such students in their career decision-making; (b) advising applicants of non-academic criteria considered in admissions decisions made by the University's pre K-12 and community professional preparation programs; (c) serving as the basis for feedback provided to students in these programs regarding their progress toward mastery of all program objectives; and (d) serving as the basis for the final assessment of attainment of graduation requirements and recommendation for certification.

Candidates in the undergraduate teacher preparation programs will be required to submit a College of Education Technical Standards Acknowledgement Form as part of the College's selective admissions review in the sophomore or junior year. Self-assessments of candidates and faculty evaluations of students on the technical standards also will occur during each field/internship experience. Students will be monitored and given feedback throughout the program. At specified points, students will be notified of inadequacies that may prevent them from progressing through their program. Documentation and consensus regarding the student's functioning will be sought before any action is taken. Candidates who experience deficiencies in
any areas will be encouraged to seek appropriate professional help from university or other sources. If the problem seems to be beyond remediation, continuation in professional programs, graduation, or recommendation for certification may be denied.

Technical standards may be met with, or without, accommodations. The University complies with the requirements of Section 504 of the Rehabilitation Act and the Americans with Disabilities Act of 1990. Therefore, the College of Education will endeavor to make reasonable accommodations with respect to its technical standards for an applicant with a disability who is otherwise qualified. For detailed information on the College of Education Technical Standards, see www.education.umd.edu/studentinfo/teacher_certification/forms/technicalstndrdspolicy.doc

Advising

The Student Services Office provides academic advising for education students regarding admission, orientation, registration, graduation, and certification. At other times, students who have been admitted to the College of Education receive academic advising through their departments. Students are required to complete an academic audit in the Office of Student Services upon admission to the professional teacher education degree program. Undergraduates are expected to complete their degree program in a timely manner and to adhere to program benchmarks. Information about program benchmarks and four-year plans is available on the Student Services website www.education.umd.edu/studentinfo/undergraduate_info/undergradmajors.html.

Departments and Centers

The College is organized into six departments, three of which offer undergraduate majors in teacher education: the Department of Curriculum and Instruction, which offers elementary and secondary education programs; the Department of Human Development and Institute for Child Study, which offers an early childhood program; and the Department of Special Education. In addition, the College includes a number of centers that offer special resources and facilities to students, faculty, and the community:

Center for Accelerating Student Learning
Center for Children, Relationships and Culture
Center for Education Policy and Leadership
Center for Human Services Development
Center for the Study of Assessment Validity and Evaluation
Center for Young Children
Connections Beyond Sight and Sound
Educational Policy Reform Research Institute
Institute for the Study of Exceptional Children and Youth
International Center for Transcultural Education
K-16 Partnership and Development Center
Maryland Assessment Research Center for Education Success (MARCES)
Maryland Institute for Minority Achievement and Urban Education
Maryland Literacy Research Center
Mathematics and Science Teaching Centers
Minors

The College of Education offers two minors:

1. The Minor in Secondary Education includes 15-18 credits and provides opportunities for undergraduate subject area majors to enroll in a sequence of education courses that helps them to determine if teaching is a viable career option for them. For more information about the secondary education minor, see: www.education.umd.edu/studentinfo/undergraduate_info/secedminor.html.

2. The Minor in Special Education provides opportunities for undergraduate students to enroll in a sequence of education courses to determine if working with students with disabilities is a viable career option. For students interested in pursuing this career option, a one-year M.Ed. program, leading to certification as a special educator, is also available. For more information about the 18-credit special education minor, see: www.education.umd.edu/EDSP/news/minorSpEd.pdf.

Living-Learning Programs

College Park Scholars Advocates for Children

College Park Scholars is an innovative two-year living/learning program for academically talented students. Admission is by invitation. Students attend weekly, faculty-led colloquia, which engage students in discussion and debate with prominent experts in the field.

The College Park Scholars Advocates for Children Program involves students in advocacy efforts targeting a broad range of social, educational, policy and justice issues affecting diverse children, families and communities. The Advocates program is structured so that students become informed in areas of personal interest that relate to children, families and communities. They then learn to translate their knowledge into advocacy for social justice and change. Advocacy involvement includes political lobbying, grassroots organizing and service activities in schools and communities.

For more information on the College Park Scholars: Advocates for Children Program, visit 1125 Cumberland Hall or phone 301-314-2777.

Specialized Academic Programs

Secondary Education Program Options

The College of Education has multiple pathways for students who are interested in teaching at the secondary level.

The Dual Major option, which is designed for incoming freshmen or sophomores, leads to the Bachelor’s degree with a major in an academic content area plus a second major in secondary education. All secondary majors are required to have an academic content major which satisfies the requirements of the academic department and meets the standards for teacher certification. Candidates who follow the proposed sequencing of courses can complete both majors in four years with careful advisement and scheduling.

The Minor in Secondary Education provides opportunities for undergraduate subject area majors to enroll in a sequence of education courses that helps them to determine if teaching is a viable career option for them. The 15-18 credit minor may be taken prior to admission into a teacher preparation program. If an undergraduate student pursuing or completing the minor desires to enter an education track, the candidate must apply for the dual major program to obtain certification as a secondary education classroom teacher through completion of a Maryland State Department of Education approved program option. Some of the courses
students take to complete the Minor in Secondary Education may also be applicable in certification options at the graduate level offered through the Department of Curriculum and Instruction. These students should consult with an advisor in the Department of Curriculum and Instruction to identify the most appropriate option leading to teacher certification and to review the specific admission requirements associated with these programs.

The **Certificate Program** requires completion of an academic major, including coursework specific to meet certification standards in the certificate area, and a bachelor’s degree in an approved academic content area, plus the completion of a certificate program in secondary education to meet requirements in UM’s approved program for MSDE certification. Selected coursework from the Minor in Secondary Education may be taken prior to admission to the Certificate Program option.

The **Five-Year Integrated Master’s with Certification Program**, which is intended for content majors entering the junior or senior year, is for talented students with a minimum GPA of 3.0 who seek to combine undergraduate studies in the content area and professional education as a foundation for a focused professional year at the graduate level leading to secondary-level certification in the subject field and the Master’s of Education degree. As undergraduates, admitted students complete their baccalaureate degrees with a major in the relevant content area and a minimum of 12 credits in professional education studies related to teacher certification requirements. In their fifth year, they enroll in a full-year internship and complete graduate-level professional studies that make them eligible for teacher certification and the master’s of education degree.

Detailed information about these secondary education program options is available at the College of Education Website, [www.education.umd.edu/studentinfo](http://www.education.umd.edu/studentinfo).

### College Honors Program

Undergraduate teacher education majors meeting certain scholastic requirements may participate in the College of Education Honors Program. The objective of this program is to examine the field of education at levels of depth and breadth that go beyond that provided by any one teacher preparation sequence. The program consists of three components: group, cross-disciplinary, and individual study. The Honors Program represents an excellent springboard for students with aspirations to go on to graduate school. For further information contact Dr. Christy Corbin, 1117H Benjamin Building, 301-405-7793.

### College of Education Title II

**Institutional Data on Teacher Preparation**

The College of Education pass rates for the Title II reporting period for the 2005-2006 academic year indicated that we exceeded the statewide pass rate in all categories. When the data were summarized, the College had a 100% pass rate; the statewide average was 97%. (Institutional pass rates: Basic Skills 100%; Professional Knowledge 100%; Academic Content Areas 100%; Special Populations 100%). Data tables reporting single-assessment institutional pass rates, aggregate institutional pass rates, and summary pass rates are available through the College website, [www.education.umd.edu](http://www.education.umd.edu). Information on the number of students enrolled and the student teaching experiences is highlighted below:

- Total number of students enrolled during 2005-2006: **1406**
- Total number of students in programs of supervised student teaching during academic year 2005-2006: **363**
- Total number of supervising faculty for the teacher preparation program during 2005-2006: **64**
- The student teacher/faculty ratio: **5.7 students per faculty member**
- The average number of hours per week required of student participation was **40 hours**. The total number of weeks of supervised student teaching required is **16 weeks**. The total number of hours is **640 hours**.
- The teacher preparation program is currently approved by the state.
- The teacher preparation program is not currently designated as "low-performing" by the state as defined by section 208(a) of the HEA of 1998.
- The teacher preparation program is not currently designated as "at risk of being..."
designated as 'low performing' by the state" as defined by section 208(a) of the HEA of 1998.

Approved Student Societies and Professional Organizations

The College sponsors chapters of Phi Delta Kappa; the Teacher Education Association of Maryland Students (TEAMS), a state/national education association; the Student Assembly, a student governance organization; and Kappa Delta Pi, an honor society in education. The Mary McLeod Bethune Society is a pre-professional organization concerned with minority issues and education. A chapter of the Council for Exceptional Children is open to undergraduate and graduate students in Special Education.

The Plan of Organization for the College of Education calls for undergraduate student representation on both the College of Education Assembly and College Senate. These organizations assume a critical role in policy development for the College of Education. The Assembly meets at least once a year during the fall semester for its annual meeting. Senate meetings typically occur once a month during the fall and spring semesters. Six full-time undergraduate students are elected at large as voting members of the Assembly. At least one representative from each of the departments with undergraduates serves on the Assembly. Of the six Assembly members, one is elected to serve as a delegate to the College of Education Senate. Students interested in receiving further information about the College Assembly or Senate should contact the Office of Student Services, Room 1204 Benjamin.

In several departments there are informal organizations of students. Students should contact the individual departments or, in the case of College-wide groups, the Student Services office, for additional information regarding these organizations.

Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

In addition, contributions from the College of Education Alumni and Friends have made it possible to award a number of $1,000 scholarships to deserving undergraduate and graduate students each academic year. These awards are based on the following criteria:

- academic performance
- financial need
- leadership and contributions to the field of education or commitment to potential leadership in the field of education
- encouragement of a diverse and multicultural community

Scholarship applications may be obtained in the Office of Student Services (1204 Benjamin). Applications also are available on-line: www.education.umd.edu/studentinfo/scholarship_programs/collegescholarship.html.

For more information about the College of Education Scholarships, including deadlines and application materials, contact the Office of Student Services (1204 Benjamin).

Awards

The Meritorious New Teacher Candidate (MNTC) designation is awarded to those candidates who meet rigorous criteria that demonstrate strong verbal skills, a high level of mastery of their subject matter, and excellence in their professional program. The MNTC is an optional designation to be noted on the initial license of highly qualified teachers. Similar to the Merit Scholar designation or Distinguished Diploma for high school students, the MNTC is one of pride and accomplishment as a dedicated teacher candidate who has excelled at every phase of preparation and demonstrated a deep commitment to high expectations for all children.
Four jurisdictions District of Columbia, Maryland, Delaware, and Virginia participate in the MNTC program, and new teachers who achieve the Meritorious New Teacher Candidate designation are eligible to teach in any of these four areas within the Mid-Atlantic region without having to meet any additional state requirements.

More detailed information about the MNTC criteria and the MNTC pre-Candidate application processes is available at [www.aacte.org/mntc](http://www.aacte.org/mntc).

**Student Engagement and Service Units**

**Student Services Office** (1204 Benjamin Building, 301-405-2344; [www.education.umd.edu](http://www.education.umd.edu))

The Student Services Office provides academic advising for education majors regarding admission, orientation, registration, graduation, and certification. Information about the Praxis assessments and the College of Education Scholarships also is available in Student Services.

**Educational Technology Services** (0234 Benjamin Building, 301-405-3611)

Educational Technology Services helps the College advance the effective use of technology in support of student learning. The Center provides a range of technology and media resources and services to faculty and students. The Center also offers professional development courses, technology planning, consulting assistance, and other outreach services to educators and policy makers throughout the state and region. A number of research, development, and demonstration activities in educational technology also are conducted through the Center's grants and contracts with federal, state, and private funding sources.

**Career Center** (3100 Hornbake Library; 301-314-7225) [www.CareerCenter.umd.edu](http://www.CareerCenter.umd.edu)

All seniors graduating in the College of Education are encouraged to complete a credentials file with the Career Center. Credentials consist of student teaching evaluations and recommendations from academic and professional sources. An initial registration fee is required and enables the Career Center to send a student's credentials to interested educational employers, as indicated by the student. Students also may file credentials if completing teacher certification requirements or advanced degrees and if interested in teaching, administrative or research positions in education.

Other services available through TERP (The Employment Registration Program) include job listings in private and public schools and institutions of higher learning, on-campus interviews with in-state and out-of-state school systems, and resume referral to employers interested in hiring education majors. Information and applications from school systems throughout the country, job search publications, and various employment directories are available in the Career Center.

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A.JAMES CLARK SCHOOL OF ENGINEERING (ENGR)

3110 Jeong H. Kim Engineering Building, 301-405-3855
www.eng.umd.edu
Dean: Nariman Farvardin
Associate Dean(s): Gary A. Pertmer

The mission of the Clark School of Engineering at the University of Maryland is to provide quality engineering education, to conduct strong research programs, to foster a close partnership with industry and government, and to provide related service to the campus community and the community at large. A major focus of the School's activities is to provide a quality engineering education with sufficient scope to include the basic and specialized engineering training necessary to the current and emerging needs of society. The School has related responsibility to contribute to the advancement of knowledge by conducting research at the cutting edge of science and technology. Since science and technology are rapidly advancing, the School also has a professional responsibility to provide continuing education programs so the practicing engineer can remain effective. The School faculty and administration also sees as part of its mission, an obligation to serve the needs of the campus community and the community at large in the spirit of collegial cooperation.

Engineers also occupy an intermediary position between scientists and the public because, in addition to understanding scientific principles, they are concerned with the timing, economics, and values that define the use and application of those principles. With this in mind the School fosters a close partnership with industry and government, and also reaches out to both the campus community at large with its services.

Admission Requirements

Direct Admissions Requirements

1. Admission to the Clark School of Engineering is limited. Applicants are reviewed and will be admitted directly on a competitive basis. Evaluation is based on high school grades, standardized test scores, activities, leadership and demonstrations of potential to succeed. An applicant may apply to any of the majors offered within the School. An applicant also has the option of entering as an Undecided Engineering major and will typically choose a degree program in the first year.

2. National Merit and National Achievement Finalists and Semifinalists, Maryland Distinguished Scholar Finalists, and Banneker/Key Scholars are admitted directly to the School.

45-Credit Review
Directly admitted freshmen will be subject to an academic review at the end of the semester in which they attain 45 University of Maryland credits. In order to successfully complete the review, students must have an overall GPA of at least 2.0 and have completed ENES 100, Fundamental Studies English, one Distributed Studies Course from the Humanities or Social Sciences, and the following sequence of Gateway requirements: MATH 141, PHYS 161, and CHEM 113 or CHEM 135 with a grade of 2.0 or better.

Only one repeat of a single course to the set of Gateway courses, either at the University of Maryland or at any other university or college, will be considered to meet the review requirements. A course in which a grade of W (withdrawn) is earned is counted as an attempt. Students who fail to meet these requirements by the semester in which they attain 45 University of Maryland credits may be dismissed from the Clark School and may not reapply.
Transfer Admission

Direct Admissions Requirements
Internal and External Transfer students will be directly admitted to the Clark School if they meet the Gateway requirements, MATH141, PHYS 161, CHEM113 or CHEM135 with a grade of 2.0 or better, have completed Fundamental Studies English, have completed at least one Humanities or Social Studies course, and have a minimum cumulative GPA of 3.0 in all college-level coursework, and who have not previously been admitted to the Clark School of Engineering. Only one repeat of a single course to the set of Gateway courses, either at the University of Maryland or at any other university or college, will be considered to meet the review requirements. A course in which a grade of W (withdrawn) is earned is counted as an attempt. Students may apply on or before the semester in which they attain 45 earned credits.

Internal and External Transfer students who do not meet the Direct Admissions Requirements, but have completed the Gateway requirements, may apply and be considered for admission on a competitive basis.

Appeal Process
All students may appeal. Students directly admitted as freshmen who are dismissed because of failure to meet Gateways or to be in good academic standing at 45 credits, may appeal in writing directly to the Associate Dean for Education in the Clark School. All other students who are denied admission may appeal to the Office of Admissions of the University.

Special Note
Students with a previous B.A. or B.S. degree will be admitted to the Clark School of Engineering with a minimum GPA of 3.0 and a completion of MATH140, MATH141, CHEM113 or CHEM135, and PHYS 161 with a grade of 2.0 or higher in each.

Engineering Transfer Programs
Most of the community colleges in Maryland provide one- or two-year programs which have been coordinated to prepare students to enter the sophomore or junior year in engineering at the University of Maryland. These curricula are identified as Engineering Transfer Programs in the catalogs of the sponsoring institutions. The various associate degree programs in technology do not provide the preparation and transferability into the degree curricula as the designated transfer programs. A maximum of one-half of the degree credits (approximately 60 semester hours) may be transferred from a two-year community college program.

There may be some courses which are not offered by the schools participating in the engineering transfer program. Students should investigate the feasibility of completing these courses in summer school at the University of Maryland before starting their junior course work in the fall semester.

Undergraduate Degree Requirements/Degree Options
Structure of Engineering Curricula: Courses in the normal curriculum or program and prescribed credit hours leading to the degree of Bachelor of Science (with curriculum designation) are outlined in the sections describing each department in the Clark School of Engineering. No student may modify the prescribed number of hours without special permission from the Dean of the School. The courses in each curriculum may be classified in the following categories:

1. Courses in the CORE Liberal Arts and Science Studies Program.

2. Courses in the physical sciences, mathematics, chemistry, physics.

3. Related technical courses, engineering sciences and other courses approved for one curriculum but offered by another department.

4. Courses in the major department. A student should obtain written approval for any substitution of courses from the department chair and the Dean of the School. The courses in each engineering curriculum, as classified below, form a sequential and developmental pattern in subject matter. In this respect, curricula in engineering may differ from curricula in other colleges. Some regulations which are generally applicable to all students may need clarification
School Regulations

1. The responsibility for proper registration and for satisfying stated prerequisites for any course must rest with the student as does the responsibility for proper achievement in courses in which the student is enrolled. Each student should be familiar with the provisions of this catalog, including the Academic Regulations.

2. Required courses in mathematics, physics, and chemistry have highest priority. It is strongly recommended that every engineering student register for mathematics and chemistry or mathematics and physics each semester until the student has fully satisfied requirements of the Clark School of Engineering in these subjects.

3. To be eligible for a bachelor’s degree in the Clark School of Engineering, a student must have an overall average of at least a 2.0 and a grade of C (2.0) or better in all engineering courses (courses with an EN prefix). Responsibility for knowing and meeting all graduation requirements in any curriculum rests with the student.

4. In addition to the requirement for a C (2.0) or better in all EN courses, all students who begin college-level work, either at the University of Maryland or any other institution in the Spring 2005 semester or later, must receive a grade of C (2.0) or higher in all technical courses (e.g. mathematics, physics, etc) used to satisfy major requirements.

5. A course taken at UM in which a grade has been earned may not be repeated via transfer from another institution.

6. All students are required to complete a number of general education courses and must follow the university’s requirements regarding completion of the general education (CORE) Program. Consult the Academic Regulations section of this catalog for additional information. Engineering students who began college-level work (either at the University of Maryland or at other institutions) during the Fall 1989 semester or later are required to complete a junior-level technical writing course regardless of their performance in freshman English classes. This represents a School policy, not a University-wide policy.

7. All degree programs in the Clark School of Engineering require a minimum of 120 credits plus satisfaction of all department, School, and University general education (CORE) program requirements. Students should be aware that for all currently existing engineering programs the total number of credits necessary for the degree exceeds 120 by some number that depends on the specific major.

Curricula for the various engineering departments are given in this catalog to illustrate how the programs can be completed in four years. These curricula are rigorous and relatively difficult. Surveys have shown that only about one-third to one-half of the students actually receive an engineering degree in four years. The majority of students (whether at Maryland or at other engineering schools nationwide) complete the engineering program in four and one-half to five years. It is quite feasible for a student to stretch out any curriculum; this may be necessary or desirable for a variety of reasons. However, students should seek competent advising in order to ensure that courses are taken in the proper sequence.

All students are urged to request a senior audit form in the Clark School of Engineering, Office of Undergraduate Advising and Academic Support at least two semesters before graduation to review their academic progress and discuss final graduation requirements.

Departments and Degrees

The Clark School of Engineering offers the degree of Bachelor of Science in the following fields of study: Aerospace Engineering, Bioengineering, Biological Resources Engineering (currently being phased out - no new admits), Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, Fire Protection Engineering, Materials Science and Engineering, Mechanical Engineering, B.S. Engineering (Applied Science Option). All of the
above programs, with the exception of Bioengineering and B.S. Engineering (Applied Science Option) are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). According to ABET policy, the new (as of July 2006) Bioengineering Program will apply for accreditation after graduation of its first student, which is anticipated in 2009.

Freshman-Sophomore Years

The freshman and sophomore years in engineering are designed to lay a strong foundation in mathematics, physical sciences, and the engineering sciences upon which the student will later develop a professional program during the upper division (junior and senior) years. During the first two years, students are introduced to the concepts of engineering design and work in multidisciplinary teams. The School course requirements for the freshman and sophomore years are similar for all students, regardless of their intended academic program, thus affording the student maximum flexibility in choosing a specific engineering specialization.

Engineering Sciences

Engineering Science courses represent a common core of basic material offered to students of several different departments. All freshman and sophomore students of engineering are required to take ENES 100. Other ENES courses, 102, 220, and 221, are specified by the different departments or taken by the student as electives. The responsibility for teaching the engineering science courses is divided among the engineering departments. In addition to the core courses noted above, several courses of general interest to engineering or non-engineering students have been given ENES designations. See the List of Approved Courses in chapter 8 for further descriptions of these courses.

Freshman Curriculum

See individual department requirements in chapter 7. Entering freshman math placement is determined solely by performance on the University math placement exam and not on the Math SAT score. Placement in MATH 115 or lower will delay by a semester eligibility to take certain engineering courses.

Sophomore Year

No later than the sophomore year, a student should select an academic degree program (Aerospace, Bioengineering, Biological Resources, Chemical, Civil, Computer, Electrical, Fire Protection, Mechanical, or Materials Science and Engineering) and this department assumes the responsibility for the student's academic guidance, counseling, and program planning from that point until the completion of the degree requirements of that program as well as the School. For the specific requirements, see the curriculum listing in each engineering department.

Advising

Advising is mandatory for all students in the Clark School. Advising is provided by the Office of Undergraduate Advising and Academic Support, located in Room 1124 Glenn L. Martin Hall, 301-405-3855, and is available by appointment Monday through Friday from 8:30 a.m. to 4:30 p.m. Walk-in advising is also available at specific times during the week. Appointments for other hours can be made by special request. When a student is starting his or her lower level major courses, typically in the first semester of the second year, advising is done primarily in the student's department. Refer to the individual program for additional information.

Minors

**Minor in International Engineering:** 15 to 21 credits. Students complete the course International Business Cultures for Engineering and Technology plus additional courses in language, culture studies, or internationally related students, and an international engineering experience abroad. Contact the director of Undergraduate Recruitment and Special Programs (301-405-3857) or visit the web at www.eng.umd.edu/international for more information. Students who fulfill minor requirements will receive a notation on their official transcript.
Minor in Project Management: 15 credits. A basic understanding of project management is becoming increasingly important for engineers. Such knowledge enables them to contribute immediately to employers, and to advance their careers. In addition to a strong engineering background, there is significant need for engineers to understand the fundamentals of managing projects in order to effectively participate as members of project teams. Students who successfully complete minor requirements will receive a notation on their official transcript. Contact John Cable, Project Management Minor Advisor (jcable@umd.edu) or visit the web site www.pm.umd.edu/undergrad_programs/undergrad_minor_courses/index.html for more information.

Minor in Nanoscience and Technology: 15 credits. Explosive growth in the field of nanometer scale science and technology (NS&T) has led in the past few years to many technological advances in devices and materials structured at the nanometer scale. The Interdisciplinary Minor Program of Study in Nanoscience and Technology is intended to prepare participating students for a career in this rapidly developing field. This program draws upon the considerable expertise in nanoscience at the University of Maryland, in departments distributed among three schools, Engineering, Computer, Mathematics and Physical Sciences and Chemistry and Life Sciences. Students take courses in Fabrication/Synthesis and Characterization, which emphasize the experimental side of NS&T, as well as Fundamental Science and Specialization Electives, which teach the underlying principles and directions, and include underlying theory and the motivations for NS&T. Visit the web site www.nanocenter.umd.edu/education/nano_minor/nano_minor.php for more information.

Living-Learning Programs

Women in Engineering Living & Learning Community
Director: Paige Smith
Women in Engineering Program
1134G Glenn L. Martin Hall, 301-405-3931

The Women in Engineering Living & Learning Community (WIE LLC) is open to any first year engineering student (male or female) with an interest in promoting gender diversity in the field of engineering. Students who complete the first year of the program are invited to participate in a second year. The program seeks to promote community among first and second year engineering students committed to gender diversity in the field and to provide encouragement and support for academic and professional success by: (1) introducing students to women mentors and role models; (2) offering professional and personal development opportunities; (3) helping students make connections with peers in engineering and (4) reinforcing important technical skills needed to succeed in engineering. The components of this living and learning program include a one credit seminar course, course clustering, residential housing on a common floor and resources provided in the residence hall.

Specialized Academic Programs

Dual Degree Program

The Dual Degree Program is a cooperative arrangement between the Clark School of Engineering and selected liberal arts colleges which allows students to earn undergraduate degrees from both institutions in approximately five years. A student in the Dual Degree Program will attend the liberal arts college for approximately three academic years (minimum 90 semester hours) and the Clark School of Engineering at the University of Maryland for approximately two academic years (minimum hours required determined individually approximately 60 semester hours).

Dual degree candidates may participate in any of the baccalaureate programs in the Clark School of Engineering on a space available basis.

At the present time the participating institutions in Maryland and the District of Columbia are American University, Bowie State University, Columbia Union College, Coppin State College, Frostburg State University, Morgan State University, College of Notre Dame of Maryland, St. Mary’s College of Maryland, Salisbury University, Towson University, McDaniel College, Trinity College, and Washington College. Also participating in the program are Kentucky State University, King College in Tennessee, Shippensburg University in Pennsylvania, and Xavier University in Louisiana.
Engineering Abroad

Preparation for practicing engineering in the global marketplace is increasingly important for new engineers and also for engineers to advance in their career. The Clark School offers opportunities for students to study abroad and/or intern abroad at locations in Europe, Asia, North and South America, and Australia during their college career. Students may elect to study abroad for one or two semesters and to intern abroad for eight weeks or more. Research experiences abroad are also available. Some study/internship abroad programs require fluency in the native language, while other programs offer opportunities in English. Faculty advisors and the study abroad advisor will help students select an appropriate program and course work.

For further information on study and/or internship abroad programs, students should contact the director of undergraduate recruitment and special programs in the Clark School at 301-405-3857 or visit our web site at www.eng.umd.edu/international.

College Honors Program

The Clark School offers an Engineering Honors Program that provides eligible students the opportunity to pursue an enriched program of studies that will broaden their perspectives and increase the depth of their knowledge. Engineering students meeting all of the following criteria are eligible to apply:

1. Upper fourth of engineering juniors and seniors
2. Junior standing or 60 applicable credits
3. Completion of at least one semester at UMCP

The requirements for completing the program are as follows:

1. A Honors Research Project which often can be used as a technical elective, a written report, and an oral presentation to a faculty panel of the EHP.
2. Successful completion of both Engineering Honors Seminars (ENES 480 and ENES 481, one credit hour each).
3. Maintenance of a GPA to remain in the upper third of the class.

For more information see www.eng.umd.edu/current/current_honors.html

Approved Student Societies and Professional Organizations

Professional Societies

Each of the engineering departments sponsors a student chapter or student section of a national engineering society. The student chapters sponsor a variety of activities including technical meetings, social gatherings, and School or University service projects. All students are strongly encouraged to join one or more of these chapters. These organizations are American Helicopter Society, American Institute of Aeronautics and Astronautics, American Institute of Chemical Engineers, American Nuclear Society, American Society of Agricultural Engineers, American Society of Civil Engineers, American Society of Mechanical Engineers, Black Engineers Society, Institute of Electrical and Electronics Engineers, Minerals, Metals and Materials Society, Society of Asian Engineers, Society of Automotive Engineers, Society of Fire Protection Engineers, Society of Hispanic Engineers, and Society of Women Engineers.

Honor Societies

The Clark School of Engineering and each of the engineering departments sponsor honors societies. Nominations or invitations for membership are usually extended to junior and senior students based on scholarship, service and/or other selective criteria. Some of the honors organizations are branches of national societies; others are local groups: Tau Beta Pi (College
Honorary); Alpha Epsilon (Agricultural Engineering); Alpha Nu Sigma (Nuclear Engineering); Chi Epsilon (Civil Engineering); Eta Kappa Nu (Electrical Engineering); Omega Chi Epsilon (Chemical Engineering); Pi Tau Sigma (Mechanical Engineering); Salamander (Fire Protection Engineering); and Sigma Gamma Tau (Aerospace Engineering).

Financial Assistance

The Clark School offers scholarships to talented undergraduate engineering students. This is a competitive scholarship program with scholarships awarded for merit. Financial need and a variety of other factors may also be considered.

The Benjamin T. Rome Scholarship is a full-ride scholarship awarded to a new freshman student each year. The Rome Scholarship covers all expenses (tuition and fees, room and board) plus a book allowance and a stipend. The award is renewable for three additional years provided the recipient maintains good academic standing and makes progress toward an engineering degree.

To be considered for all engineering scholarships, students must complete the online scholarship application. The deadline for new freshman is March 1st and the deadline for current or new transfer students is May 31st. For more information contact Jane Fines, Director of Undergraduate Recruitment & Special Programs, 301-405-3857 or see www.eng.umd.edu/scholarships.

Research Units

Undergraduate Research Programs

Undergraduate research programs allow qualified undergraduate students to work with research laboratory directors in departments, thus giving students a chance for a unique experience in research and engineering design. Projects in engineering allow undergraduate students to do independent study under the guidance of faculty members in an area of mutual interest. For more information contact your department or the Dean's office.

Student Engagement and Service Units

Office of Undergraduate Advising and Academic Support

1124 Glenn L. Martin Hall, 301-405-3855
Director: Jenna Dolan
www.eng.umd.edu/advising , engrhelp@deans.umd.edu

The Office of Undergraduate Advising and Academic Support Office provides a broad variety of services to assist students during their collegiate careers. Individual advising may focus on a number of student related issues including: course selections, schedule planning, university policy interpretations, career choices, social and personal adjustments and academic concerns. The office also provides orientation to new students, evaluates transfer credits from other institutions, clears students for graduation, and is instrumental in helping students process administrative forms. The staff works closely with other campus offices to identify resources that address the various needs of our students.

Engineering Co-op and Career Services

1131 Glenn L. Martin Hall, 301-405-3863
Director: Heidi Sauber
co-op@eng.umd.edu , www.coop.eng.umd.edu

Whether it’s to wire robots in a car plant, monitor a waste water management project, or reformulate cough syrup for a pharmaceutical company, the Engineering Co-op and Career Services Office assists students in finding cooperative education (co-op) and internship positions in private industry and the government. Students may work full-time or part-time during the fall, spring and/or summer semesters. Co-op and internship positions complement classroom learning and provide students the opportunity to gain professional level experience, build mentoring relationships, integrate theory and practice, confirm career choices, and help finance their education.
The first step in the application process is to attend an orientation session that focuses on internship/co-op search strategies. After writing a resume and having it critiqued by our office, students are given permission to upload their resume into our database eLink of engineering jobs and on-campus interviews. To assist students in their search we offer a wide variety of workshops on topics such as effective resumes, interview strategies, professionalism, career fair preparation, salary negotiation, and advanced job search techniques. Our website lists the current schedule of workshops. In addition, students have the opportunity to meet employers by participating in our career fairs, employer information sessions, and special job search presentations conducted by engineering recruiters. Visit our website for more information: www.coop.umd.edu.

Undergraduate Recruitment and Special Programs
1124 Glenn L. Martin Hall, 301-405-3857
Director: Jane F. Fines
www.ursp.umd.edu

The Office of Undergraduate Recruitment and Special Programs provides a wide variety of programs and services to recruit and retain students in the Clark School. Services include meeting with prospective students, providing K-12 outreach activities, administering the Clark School's scholarship program, advising students studying abroad and students completing the minor in international engineering, and coordinating the Inventis: Academy of Engineering Leaders program.

The Center for Minorities in Science and Engineering
1134 Glenn L. Martin Hall, 301-405-3878
Director: Rosemary L. Parker

The Center is dedicated to increasing the enrollment and graduation rates of African American, Hispanic, and Native American students majoring in engineering. The Center provides a complete package of services designed to assist students from pre-college through completion of the undergraduate degree. Services include academic advising, tutorial assistance, scholarship information, the BRIDGE Program, outreach programs, job information and support of student organizations.

Women in Engineering Program
1134 Glenn L. Martin Hall, 301-405-3931
Director: Paige E. Smith

The Women in Engineering Program (WIE Program) is dedicated to increasing the enrollment, retention, and graduation rates of females in the School, as well as identifying and addressing this group's unique needs. The Program provides a comprehensive set of initiatives designed to encourage and assist women students to become successful professional engineers.

Services offered include research fellowships, professional mentoring program, information listserv, website, scholarship database, first year mentoring program, workshops on careers, outreach programs, speakers, and support of women engineering organizations.

Engineering Information Technologies (EIT)
0123 Glenn L. Martin Hall, 301-405-0174
Executive Director: James F. Zahniser, 301-405-3885
www.it.umd.edu

Keeping pace with the latest developments in the area of information technologies worldwide, the Clark School of Engineering provides a state-of-the-art computing environment that will be the standard for engineers in the years ahead. Faculty and students have access to computer workstations with a wide range of engineering software and multi-media enabled classrooms with the latest presentation capabilities. In addition, EIT provides access and support on the latest tools and services for online collaboration, presentation technologies, and distance learning.

Distance Education Technology and Services
2104 Martin Hall, 301-405-4910; Fax: 301-314-9639
www.dets.umd.edu
Distance Education Technology and Services, DETS, provides distance education technology and support service to the A. James Clark School of Engineering and the UMCP campus. We serve over 500 students per year by providing graduate and undergraduate courses in engineering and other related fields. In addition, we also provide technical services to the campus such as video conferencing, video capturing, satellite services and more. For further information, please reference the DETS web site at www.dets.umd.edu.

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The College of Health and Human Performance (HLHP)

3310 HLHP Building, 301-405-2438
www.hhp.umd.edu
Dean: Robert S. Gold
Associate Dean(s): Dushanka Kleinman
Assistant Dean(s): Viki Annard, Mary Kivlighan

The College of Health and Human Performance provides preparation leading to the Bachelor of Science degree in the following professional areas: Physical Education (K-12), Community Health and Family Studies. The College also offers curricula in Kinesiological Sciences. In addition, each department offers a wide variety of courses for all university students. These courses may be used to fulfill the general education requirements and as electives.

Programs combining service and instruction are provided by the Children’s Health and Developmental Clinic (see KNES 389E) and the Adult Health and Developmental Program (see HLHP287).

Undergraduate Degree Requirements/Degree Options

The College of Health and Human Performance offers the baccalaureate in the following fields of study: Physical Education, Kinesiological Sciences, Community Health and Family Studies. The degree of Bachelor of Science is conferred upon students who have met the conditions of their curricula as herein prescribed by the College of Health and Human Performance.

Each candidate for a degree must file a formal application with the Records Office according to the scheduled deadlines for the anticipated semester of graduation.

Advising

At the time of matriculation and first registration, each student is assigned to a member of the College faculty who acts as the student’s academic advisor. These assignments are made by the individual departments and depend upon the student’s chosen major. All athletes and students on probation or dismissal are seen by advisors in the Student Service Center. 301-405-2357.

College Honors Program

Phi Alpha Epsilon. Honorary Society of the College of Health and Human Performance. The purpose of this organization is to recognize academic achievement and to promote professional growth by sponsoring activities in the fields of physical education, kinesiology, family studies and health, and related areas.

Students shall qualify for membership when they attain junior standing in physical education, kinesiology, family studies, or community health, and have a minimum overall average of 3.5 and a minimum of 24 credits at the University of Maryland, College Park. For additional information, please contact the Student Service Center, 301-405-2357.

Research Units

Center on Aging
2367 HLHP Building, 301-405-2469
Chair and Professor: Dr. Laura B. Wilson
www.hhp.umd.edu/health-services

The Center on Aging, as part of the Department of Health Services Administration (a graduate program), stimulates and supports aging-related activities within existing departments, colleges, and schools throughout all of the various institutions of the University System of Maryland. The Center coordinates the Graduate Gerontology Certificate (master’s and doctoral levels), the university's first approved graduate certificate program. The Center assists undergraduate and graduate students interested in the field of gerontology and helps them to devise educational programs to meet their goals. It is a research center working in health and aging policy, lifelong learning and civic engagement, disability and aging, behavioral and social aspects of aging, and health service delivery systems. It also conducts community education programs, assists faculty in pursuing research activities in the field of aging, conducts conferences on adulthood and aging-related topics, provides on- and off-campus technical assistance to practitioners who serve older adults and sponsors the University of Maryland Osher Lifelong Learning Institute, Legacy Leadership Institutes, the University of Maryland Retirees Association, and Retired and Senior Volunteer Programs International (RSVPI).

**Student Engagement and Service Units**

**Student Service Center**
1304 Health and Human Performance Building, 301-405-2753
www.hhp.umd.edu/studentservices

The Student Service Center provides advising on admissions, orientation, academic policy, 4-year planning, career information, and required advising for students on academic probation or dismissal and all college athletes. All other advising is provided in the college departments. The Center is open from 8:00 am - 4:30 pm week days for use by students for studying and group meetings. There are twelve computers available for student use.

**Gymkana Troupe**
1120 HLHP Building, 301-405-2566
www.gymkana.umd.edu
Director: Scott Welsh

For over 60 years, the University of Maryland Gymkana Troupe has been influencing young people to live healthy lifestyles. Founded at the University of Maryland College Park campus in 1946, the troupe has traveled throughout Maryland and neighboring states promoting drug-free living. Each of its 60+ members pledges themselves to be drug-free. Through their role-modeling and unique gymnastic performances, they have influenced hundreds of thousands of people to join them in living a drug-free life. The troupe, which is open to all University of Maryland students of all abilities, is considered a one-of-a-kind organization and is believed to be the only collegiate exhibitional gymnastic troupe actively touring the United States. As an outreach program of the College of HHP, the Gymkana Troupe uses peer role models who share their experiences and their message of healthy living with others. Students influencing students to avoid drugs is the heart of Gymkana’s program.

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THE PHILIP MERRILL COLLEGE OF JOURNALISM (JOUR)

1117 Journalism Building, 301-405-2399
www.journalism.umd.edu
Dean: Thomas Kunkel
Associate Dean(s): D. Heider, O. Reid
Assistant Dean(s): S. Crane, M. Payne-Gassaway, F. Quine, L. Ringer

Professors: M. Beasley, D. Broder, R. Cleghorn, J. Franklin (Philip Merrill Chair), M. Gurevitch, H. Johnson (Knight Chair), T. Kunkel (Prof And Dean), E. Roberts, L. Steiner, C. Stepp, L. Thornton (Richard Eaton Chair)
Associate Professors: S. Barkin, C. Hanson, D. Heider (Assoc Prof & Assoc Dean), K. McAdams (Assoc Prof & Assoc Dean UG Studies), S. Moeller, J. Newhagen, M. Williams, E. Zanot
Lecturers: A. Barbieri, A. Bonner, I. Chinoy, C. Clayton, S. Crane (Lecturer & Asst Dean), A. Flynn, P. Fuchs, C. Harvey, D. Huffman, S. Katcef, C. Rogers, K. Swift
Professors Emeriti: J. Blumler, P. Geraci (Assoc Prof Emeritus), D. Gomery, R. Hiebert, L. Martin
Visiting Faculty: N. Hopkinson, R. Lorente, J. Nelson (Director of Carnegie Seminar), L. Pitts (Merrill Visiting Professor), G. Solomon (Povich Professor)

The Major

The Philip Merrill College of Journalism prepares students for careers in newspapers, magazines, TV news, newsletters and online journalism outlets. The undergraduate journalism program culminates in a B.A. degree in journalism.

The college is fully accredited by the Accrediting Council on Education in Journalism and Mass Communications.

Students learn in college programs such as Capital News Service, a daily wire service in Washington and Annapolis, UMTV, a cable station operated by the college, and the American Journalism Review, the nation's leading media magazine.

Students majoring in journalism take approximately one-fourth (38 credits) of their total coursework in the Philip Merrill College of Journalism. Journalism courses are designed to provide students with a working knowledge of the tools and concepts they will need to perform as top-flight professional communicators.

The remaining three-fourths (84 credits) of undergraduate coursework consists of a variety of other subjects such as history, economics, government, sociology and psychology. This exposure acquaints students with fundamental problems and issues they will encounter in their careers. Within these credits, journalism students must choose a "Concentration" (a core of advanced work in a substantive field) to establish competency in a specialized area of knowledge they will be able to use as professionals.

Program Objectives

About the College

The Philip Merrill College of Journalism is widely considered one of the best journalism programs in the nation, blending a mix of prize-winning journalists, communication scholars and nationally recognized professional programs. The school's mission is simple: to produce the best possible journalists for leading newspapers, magazines, TV, radio and online news outlets.
Recent graduates are editors, reporters and producers at The New York Times, Washington Post, CBS, Los Angeles Times, CNN, America Online and many of the nation's other top news organizations.

Students learn from a faculty that includes Pulitzer Prize winners David S. Broder, Haynes Johnson and Jon Franklin, former CBS White House correspondent Lee Thornton and former Philadelphia Inquirer Executive Editor Gene Roberts. The faculty also include internationally recognized media and communications scholars Michael Gurevitch and Maurine Beasley.

Located less than 10 miles from the news capital of Washington, students participate in internships during the academic year at The Washington Post, The (Baltimore) Sun, CNN, and a wide array of Washington news bureaus. In the summer, students intern at top news organizations around the country. Broadcast news students produce and anchor a 30-minute nightly news show that reaches more than 400,000 households in suburban Washington on the College-operated UMTV station, and online students work on Maryland Newsline, a political and public policy Web-based news magazine. Advanced broadcast, online, and print students enroll in Capital News Service, an intensive full-time reporting program in Washington and Annapolis. Students also participate in some of the school’s many professional programs, including the monthly magazine American Journalism Review, the Casey Journalism Center for Children and Families, and J-Lab: The Institute for Interactive Journalism.

**College Mission Statement**

The College seeks to be the nation's preeminent professional school in its field, a model for others in its integration of scholarly work and professional practice. As we enter a new century, it aspires to lead in the uses and study of new technologies to improve understanding and performance in our fields. Its mission is to educate university students at the undergraduate, master's and doctoral level within a liberal arts context, preparing them for careers in journalism, and scholarly work and teaching in these fields; to elevate the standards of professional practice; and to advance the quality of public life through knowledge of public issues, including those related to the role in a democratic society.

**Program Learning Outcomes**

1. Demonstrate the ability to research, write, report and edit relevant news stories acceptable by a professional news outlet.
2. Understand the history of journalism, be familiar with coverage of diverse groups in society and learn the role of journalists in society.
3. Understand the ethical guidelines and practices that govern the profession and the legal implications and considerations that inform the profession.
4. Demonstrate the ability to apply tools, concepts and technology appropriate for the presentation of images and information in the profession.
5. Conduct research and evaluate information by methods appropriate to the profession.
6. Apply basic numerical and statistical concepts.

**Special Advantages and Facilities**

The Merrill College is home to many unique programs and opportunities available to undergraduate students:

**UMTV:** Broadcast journalism students study and learn at UMTV, the college-owned cable TV station that houses state-of-the-art equipment, including DVCPRO, Avid and ENPS systems used in the field today. Students begin their broadcast education from their first semester at the College, volunteering as crew members for programs produced under the guidance of renowned broadcast faculty members.

**Capital News Service:** the college's Capital News Service operates two print bureaus, one in Annapolis and one in Washington, D.C, a daily television newscast, and an online news magazine. CNS provides students with real-life reporting experiences covering a beat, developing sources, generating story ideas and writing on deadline under the supervision of a faculty editor.

**Real-World Experience:** Students take their education out of the classroom and into the real world. Using internships, student media and in-class reporting, our students don't just learn
why, but how. The college is located just outside Washington, D.C., the nation's capital, and the
country's eighth largest media market.

Top-Notch Faculty: The Merrill College is home to internationally renowned journalists and
media scholars, including seven Pulitzer Prize winners. Courses are also taught by working
journalists who serve as adjunct professors.

Access to Centers of Journalism Study: The Merrill College is home to ten centers for
journalism study and professional development. Undergraduates have opportunities to interact
with these programs. Internships are available for students at three of these centers. Students
can write and research topics impacting the field at American Journalism Review, one of two
national publications that cover the journalism industry. Students can also intern at J-Lab: The
Institute for Interactive Journalism, or the Casey Journalism Center for Children and Families.

Technology for the "Real World": Students use the same technologies used by professional
journalists and media specialists. From the latest in non-linear editing systems, to updated
technologies for digital art and pagination, every undergraduate will have access to the
hardware and software used by professionals in television and radio production, visual
journalism, online news and media communication.

Admission Requirements

Journalism is a Limited Enrollment Program (LEP). See the Admissions section in chapter 1 for
general LEP admission policies.

Freshman Admission and the 45-Credit Review

First-time entering freshmen will gain admission to the Philip Merrill College of Journalism
directly from high school on an available basis. Early application is encouraged. Freshmen
admitted to the program will have access to the necessary advising through their initial
semesters to help them determine if Journalism is an appropriate area for their interests and
abilities. Academic and career advising is provided to journalism students throughout their
academic career by qualified academic counselors and the College's faculty.

Freshmen who are admitted directly to Journalism will be subject to a performance review by
the time they have completed 45 credits. To meet the provisions of the review, these students
must complete: (1) The two, first-year Fundamental Studies courses: ENGL 101 and
mathematics; (2) at least nine credits of Distributive Studies coursework, selected in
consultation with an advisor; (3) ENGL 101 and JOUR 201 with grades of C or higher (JOUR 100
is a pre or co-requisite of JOUR 201); and (4) a minimum cumulative GPA of 2.0. Students must
prove grammar skills competency through attainment of a minimum of a 2.0 in JOUR 181 prior
to enrolling in JOUR 201. Students who do not meet these requirements will not be allowed to
continue in the LEP and will be required to select another major. In addition freshmen are
expected to complete JOUR 200 by the end of their first year.

Transfer Admission

These requirements apply to new transfer students to the University as well as on-campus
students.

Note: No more than 12 transfer credits of communications courses from an accredited
journalism program may be approved by the College to be applied toward the degree. Transfer
students who wish to receive credit for JOUR 201 based on work done in a non-accredited
journalism program must pass a proficiency exam.

In order to be admitted to Journalism, transfer students will be required to meet the following
set of gateway requirements: (1) The two, first-year Fundamental Studies courses: ENGL 101
and mathematics; (2) at least nine credits of Distributive Studies coursework, selected in
consultation with an advisor; (3) completion of ENGL 101 and JOUR 201 with grades of C or
higher. Enrollment in JOUR 201 requires proof of grammar skills competency through the
attainment of at least a 2.0 in JOUR 181; and (4) attainment of a 2.8 GPA for all college-level
work attempted.
The Test of Standard Written English (TSWE) was phased out at the end of the 2005-06 academic year. Students who failed to pass the TSWE (with a minimum score of 52 on their second attempt) prior to the end of the 2005-06 academic year are not eligible to take JOUR 181 to demonstrate grammar skills competency.

**Appeals**

Students who are unsuccessful in gaining admission to Journalism at the freshman or transfer level, and believe they have extenuating or special circumstances that should be considered, may appeal in writing to the Office of Undergraduate Admissions. The student will be notified in writing of the appeal decision.

Students admitted to Journalism as freshmen that do not pass the 45-credit review but believe they have special circumstances that should be considered, may appeal directly to the College.

For further information, contact The College's Student Services office at 301-405-2399.

**Requirements for the Major**

Students are required to earn a minimum of 122 credits. Due to the liberal-arts focus of journalism, accredited journalism programs require majors to complete successfully approximately two-thirds of their coursework in areas other than journalism and communication. The Philip Merrill College of Journalism at the University of Maryland adheres to this nationwide policy. In practical terms, this means that of the 122 minimum credits required for graduation, a journalism student must take 38 credits in journalism (numbered 100 or above). Of the remaining 84 credits, a minimum of 65 must be earned in liberal-arts designated courses.

The Philip Merrill College of Journalism stipulates that 58 of the total credits must be taken in upper-level courses (courses numbered 300-499).

Required courses for all journalism majors regardless of whether journalism is a student’s primary or secondary major:

**I. Journalism requirements outside the College**

Students must complete the following liberal arts coursework complementing the University’s general education requirements. For the University’s general education (CORE) requirements, consult the CORE program in the current Undergraduate Catalog.

- Abstract thinking skills requirement (nine credits)
  1. One three-credit statistics course from the following list: BIOM 301, BMGT 230, CCJS 200, ECON 321, EDMS 451, GEOG 305, GVPT 227, PSYC 200, SOCY 201, or a more advanced statistics course.
  2. A minimum of six credits through one or a combination of the following options. Should a student choose to combine the options, at least one language course must be at the intermediate level:
     - Language: up to two courses with at least one course at the intermediate level and no more than one course at the introductory level. (High school equivalency does not satisfy this requirement.)
     - Math/Statistics/Computer Science: up to two courses (Any mathematics (MATH) course numbered 111 or higher. Any computer science (CMSC) course.
  - Public Speaking: one course from COMM 100, 107, 200, or 230.
  - History: one course from HIST 156 or 157.
  - Behavioral or Social Science: one course from ANTH 260; PSYC 100 or 221; SOCY 100 or 105.
  - Economics: one course from ECON 200 or 201.
  - Government and Politics: one course from GVPT 100 or 170.
  - Supporting Area: Four upper-level (numbered 300 or higher) courses for a minimum of 12 credits in a supporting field (cannot be in Communication).
II. Journalism course requirements:

- JOUR 100-Professional Orientation (one credit)
- JOUR 200-History, Roles and Structures (three credits)
- JOUR 201-News Writing and Reporting (three credits)
- JOUR 202/262-News Editing (three credits)
- JOUR 300-Ethics (three credits)
- One of News Writing and Reporting II (three credits):
  - JOUR 320-Print or
  - JOUR 360-Broadcast
- Advanced Skills: Any nine JOUR credits numbered 321-389
- JOUR 350-Graphics or JOUR 352-Online Journalism (three credits)
- JOUR 396/399-Supervised Internship (one credit)
- JOUR 400-Law of Mass Communication (three credits)
- Journalism and Society: Any three JOUR credits numbered 410-469
- Research: Any three JOUR credits numbered 470-479

III. Specific Journalism Requirements

- Completion of JOUR 201: Students must complete JOUR 201 with a "C" or higher. Consult the Schedule of Classes or the Undergraduate Catalog for a list of prerequisites and restrictions for journalism courses.
- "C" Requirement: Students must earn a "C" or better in JOUR 201 and JOUR 202/262 prior to taking any courses for which they serve as a prerequisite.
- Students pursuing a broadcast track are required to complete JOUR 361.

Placement in Courses

Enrollment in JOUR 201 requires proof of grammar skills competency through the attainment of at least a 2.0 in JOUR 181.

The Test of Standard Written English (TSWE) was phased out at the end of the 2005-06 academic year. Students who failed to pass the TSWE (with a minimum score of 52 on their second attempt) prior to the end of the 2005-06 academic year are not eligible to take JOUR 181 to demonstrate grammar skills competency.

Advising

The Office of Student Services, 1117 Journalism Building, 301-405-2399, provides academic advising to majors on an appointment basis. Send e-mail inquiries to jourug@deans.umd.edu.

Living-Learning Programs

College Park Scholars Media, Self & Society

CPS in Media, Self and Society Director: Dr. Kalyani Chadha; Associate Director: Ken Joseph

Co-sponsored by the Philip Merrill College of Journalism, the Media, Self and Society Program is one of the living/learning programs offered by the College Park Scholars Program. This two-year program for incoming freshman is designed to give students the opportunity to undertake a critical examination of media organizations, institutions and practices as well as gain practical experience through involvement in a media-related activity of their choice. For more information see the College Park Scholars Program section in this catalog.

Honors Program

Although no departmental honors program currently exists within the College, academically
outstanding students are recognized through Kappa Tau Alpha, the Journalism academic honor society.

**Student Societies and Professional Organizations**

The college sponsors student chapters of the Society for Professional Journalists, the National Association of Black Journalists, and the Radio and Television News Directors Association. These organizations provide students with opportunities to practice skills, establish social relationships with other students both on and off campus, and meet and work with professionals in the field.

For information on the organizations listed, contact the Student Services Office, 1117 Journalism Building, 301-405-2399.

**Financial Assistance**

The College is committed to enrolling the most qualified students, regardless of ability to pay. Toward that end, the College through donor-sponsored awards gives more than $105,000 annually in scholarships to undergraduates. Additionally, the University awards scholarships and financial aid including low-interest loans, grants and work-study opportunities.

**Sources for Incoming Students**

All incoming freshman are automatically considered for scholarships granted by the College.

*Gridiron Scholarships* - Funded by the Gridiron Foundation of Washington, the $6,000 annual award is a four-year renewable scholarship given to an incoming journalism freshman. Selection is based on merit and a commitment to print journalism.

*William Randolph Hearst Scholarships* - Awards of $2,000 for one year only to outstanding Maryland high school students admitted to the Philip Merrill College of Journalism.

*The Freedom Forum Journalism Scholarships* - Awards of $1,250 to an incoming freshman and $1,250 to an outstanding undergraduate (print, broadcast or online) with financial need.

*Baltimore Sun Diversity in Journalism Scholarship* - A non-renewable $2,500 award established by the Times Mirror Foundation to an incoming freshman with high academic achievement in high school and wide-ranging cultural and economic background, who resides in the Baltimore Sun's circulation area.

**Sources for Current Students**

Every year, students benefit from the generosity of our donors with myriad scholarships, ranging from $500 to $5,000 in one-time and renewable installments, awarded by the college. Students are selected on a basis of need, merit, donors' intent or a combination of these factors. Below is a selection of scholarships students may apply for:

- The Paul Berg Diamondback Scholarship
- Entravision Communications Broadcast Journalism Scholarship
- Newsletter and Electronic Publishers Foundation Journalism Scholarship
- Washington Press Club Foundation Scholarship
- The Reese Cleghorn Excellence in Journalism Scholarship
- Jay Jackson Scholarship
- Maryland-Delaware-DC Press Association Scholarships
- The Richard W. Worthington Journalism Scholarship
- Gertrude Poe Scholarships
- The Stanley E. Rubenstein Memorial Journalism Scholarship
- Steven C. Affens Broadcast Journalism Scholarship
- The Ralph Crosby Journalism Excellence Scholarship
- The Fred I., Edna O. and Fred J. Archibald Scholarship
- The Joe Aaron Journalism Scholarship
- The Phyllis and Frank Kopen Broadcast Journalism Scholarship
- The Hiebert Journalism International Travel Award
- The Gene Roberts Award

For more information, and eligibility requirements, visit [www.journalism.umd.edu/financial/](http://www.journalism.umd.edu/financial/)
Other Sources
The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: http://www.financialaid.umd.edu

Awards and Recognition

Maryland-Delaware-District of Columbia Press Association Top News-Editorial Student - Awarded annually to an outstanding print journalism student at the May commencement. A separate award is also given to the top Broadcast student.

Julie Galvan Outstanding Campus Member Award - The Society of Professional Journalists chapter selects one graduate in journalism who is outstanding in his or her class on the basis of character, service to the community, scholarship, proficiency in practical journalism and significant contributions to their SPJ chapter.

Kappa Tau Alpha Top Scholar Award - Awarded at each commencement to the journalism student earning the highest academic achievement for all undergraduate study.

Kappa Tau Alpha National Honor Society - The top ten percent of the journalism graduating class is inducted into this national organization each commencement.

Fieldwork Opportunities

Internships

Supervised internships are essential. Penny Bender Fuchs is the Director of the Journalism Internship Program, 3116 Journalism Building, 301-405-2796.

Professional Experience Opportunities

Capital News Service

The Annapolis and Washington bureaus of the Capital News Service are staffed by students and supervised by college instructors. Students cover state and legislative news for client papers around the region. Broadcast students have the opportunity to participate in Capital News Service in the Annapolis bureau, developing stories and packages for UMTV. Students are required to report breaking news under deadline, write profiles, and cover state agencies. This is a full-time, semester-long program, on site at one of two bureau locations. Students interested in web journalism can report, write and edit for Maryland Newsline, an online magazine. This bureau is located in the college's online facility. Capital News Service is coordinated by Assistant Dean Steve Crane, Journalism Building, 301-405-8806.

UMTV

For students interested in broadcast news, opportunities to gain experience with cable news programs are presented within the curriculum and by volunteering at the campus television station, UMTV.

Student-Run Campus Media Outlets

Students can gain broadcast news and sports reporting experience through the campus radio station, WMUC. There are numerous student-run publications on campus. These include, The Diamondback, an independent daily newspaper that appears in print and online. The Diamondback is one of the most-read campus dailies in the nation. Among the many campus publications there are literary magazines and newspapers of interest to special populations. These include the Eclipse, Black Explosion, The PublicAsian, Mitzpeh and Unwind! magazine.
COLLEGE OF INFORMATION STUDIES (CLIS)

4105 Hornbake Building, 301-405-2033
www.clis.umd.edu
Dean: Jennifer J. Preece

While the College does not currently have an undergraduate major, it offers courses at the undergraduate level, which may be found under Library Science (LBSC). These courses are suggested for students wishing to develop skills in locating, analyzing, and evaluating information and those seeking to learn more about career opportunities in the information field.

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The Colleges and Schools

SCHOOL OF PUBLIC POLICY (PUAF)

College Description

SCHOOL OF PUBLIC POLICY (PUAF)

2101 Van Munching Hall, 301-405-6330
www.puaf.umd.edu
Dean: Steve Fetter

While the School does not currently have an undergraduate major, it offers courses at the undergraduate level, which may be found under Public Affairs (PUAF). These courses are suggested for students wishing to develop knowledge and experience in public policy and leadership.

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The Colleges and Schools

OFFICE OF UNDERGRADUATE STUDIES

Academic Achievement Programs
Asian American Studies (AAST)
Air Force Reserve Officer Training Corps (AFROTC) Program
Army Reserve Officer Training Corps (ROTC)
Beyond the Classroom
Center for Teaching Excellence
Educational Talent Search College Gateway Programs
College Park Scholars Program (CPSP)
CORE Liberal Arts and Sciences Studies Program
Federal Semester Program
Global Communities
Individual Studies Program
Lesbian, Gay, Bisexual and Transgender Studies (LBGT)
Letters and Sciences
Maryland Center for Undergraduate Research (MCUR)
National Scholarship Office
Orientation
Pre-College Programs
University Honors Program

OFFICE OF UNDERGRADUATE STUDIES

2130 Mitchell Building, 301-405-9363
www.ugst.umd.edu
Associate Provost and Dean: Donna B. Hamilton
Associate Dean: Katherine McAdams
Associate Dean: Scott Wolpert
Assistant Dean: Lisa Kiely
Assistants to the Dean: James Newton, Kathryn Robinson, Laura Slavin

Through its many programs, the Office of Undergraduate Studies serves all undergraduate students at the University and the faculty and staff that support the undergraduate mission of the campus. The Office of Undergraduate Studies is the primary division at the University of Maryland responsible for leadership and oversight of undergraduate curricular and co-curricular education. The responsibilities of Undergraduate Studies include:

- Living-learning programs
- Academic enrichment programs
- Interdisciplinary and individual studies programs
- Academic advising policy and assessment
- CORE/General Education
- Academic planning and policy
- Enrollment management
- University learning outcomes assessment

Primary listings for programs that report to the Office of Undergraduate Studies appear in this section (except where noted).
Academic Achievement Programs

2110 Marie Mount Hall, 301-405-4736
www.aap.umd.edu
Executive Director: Dr. Jerry Lewis

The Academic Achievement Programs (AAP) primarily provides resources and opportunities for low-income individuals, first generation college students, disabled students and traditionally under-represented students. Academic Achievement Programs include the Intensive Educational Development (IED), and Educational Opportunity Center (EOC), the Ronald E. McNair Post-Baccalaureate Achievement Program, the Summer Transitional Program, and Student Support Services (SSS). EOC, McNair and SSS, which are part of the Federal TRIO program funded by the U.S. Department of Education, provide support services, to motivate and to prepare students from disadvantaged backgrounds for doctoral programs.

Educational Opportunity Center (EOC)
Mr. Andre Nottingham, Associate Director
301-429-5933

EOC is supported by a U.S. Department of Education grant primarily designed to assist adults 19 and over from low-income and first-generation backgrounds in pursuing post-secondary educational opportunities. UM-EOC predominantly serves inner-beltway communities in Prince George's County and provides academic and financial application assistance, counseling, and related services to its participants to improve post-secondary enrollment or re-enrollment.

Intensive Educational Development (IED)
Dr. Tilahun Beyene, Associate Director, AAP and Assoc. Director IED
301-405-4751

Funded by the State of Maryland, IED provides an array of comprehensive academic and tutorial services to first-year and second-year students who participate in the Summer Transitional Program (STP), first- and second-year eligible transfer students, and other eligible students enrolled in the general student body. Prospective students attempting to gain admission to the University by participating in this program are required to attend the six-week STP, designed to develop, expand and improve English, math, and study skills and assist in the transition from high school to the university. Continuing students are eligible for services as needed.

Summer Transitional Program (STP)

The Summer Transitional Program (STP) assists students in both their academic and personal adjustment to the University. Tutoring and skills enhancement in math, English, and college study strategies, coupled with enrollment in a selected three-credit university CORE course facilitate students' academic adjustment. In addition, students enroll in a one-credit orientation course and participate in weekly individual and/or group counseling sessions. The six-week STP is required of all students admitted to the University through SSS/IED.

Ronald E. McNair Post-Baccalaureate Achievement Program
Dr. Nthakoana Peko, Associate Director
301-405-4749

Designed principally for low-income, first-generation college juniors and seniors and/or students from underrepresented groups in specific graduate disciplines, the Ronald E. McNair Post-Baccalaureate Achievement Program is a federally funded research opportunity. The McNair
program prepares students for graduate school, preferably at the doctoral level. The program offers assistance with the completion of graduate school and financial aid applications and preparation for graduate admissions tests. In addition, McNair offers a six-week summer research experience that affords students the opportunity to work intimately with faculty mentors on specific research projects, refine skills in written communications, computer applications, statistics and research methodology.

**Student Support Services (SSS)**

Dr. Tilahun Beyene, Associate Director
301-405-4750

SSS is a U.S. Department of Education grant supported program geared toward low-income and first-generation college students. It works in conjunction with the IED Program. SSS provides academic and career advising, and tutoring to its students throughout their time at the university, with primary focus on first- and second-year students. It also provides financial aid application assistance, individual and group counseling, and leadership development workshops. In limited cases, SSS provides supplemental grant aid to eligible students in the program.

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Asian American Studies (AAST)

1120 Cole Student Activities Building, 301-405-0996
www.aast.umd.edu
aast@umd.edu

Director: Larry Hajime Shinagawa, Ph.D.

The Asian American Studies Program (AAST) provides students with the opportunity to study critically the experiences of Asian Americans. Through an interdisciplinary approach, students examine the histories, communities and cultures of Asian Americans as both distinctive from and connected to the broader themes for diversity, ethnicity, race, gender and migration in the Americas. AAST offers a 21 credit-hour undergraduate certificate for students as well as a 15 credit-hour minor. For both the Certificate and the Minor, courses may be cross-listed in other departments and some may satisfy CORE requirements.

Certificate Requirements:

A. AAST Core Courses (6 credits):
   1. Introduction to Asian American Studies (AAST200)
   2. Asian American History and Society (AAST201)

B. Elective Courses (12 credits): Students may earn the 12 required elective credits by successfully completing any of a number of special topics courses AAST offers each semester. Elective requirements may also be satisfied through successful completion of courses offered through other departments or programs. Students must obtain approval from the AAST program director for courses outside of AAST offerings.

C. AAST Senior Capstone (3 credits): Students participate in a faculty-guided research project (AAST388) or an experiential learning project such as an internship with an Asian American or Asian Pacific American organization (AAST378).

D. All courses toward the Certificate must be completed with minimum grade of "C." Students interested in earning the certificate should first schedule an advising appointment at the AAST office. Students in good standing may then officially enroll in the certificate program. While students may begin taking courses before they enroll in the certificate program, they should schedule an advising appointment as soon as possible.

Minor Requirements:

A. AAST Core Courses (6 credits):
   1. Introduction to Asian American Studies (AAST200)
   2. Asian American History and Society (AAST201)

B. Upper-level Courses (6 credits): In addition to the two required foundational courses, students will also select two additional upper-level (300/400) courses, one of which would be at the 400 level, from the following list of regular and
special topics courses: AAST 398L, HIST 319P/AAST 398P, WMST 420/AAST 420, 
SOCY 424/AAST 424, EDC P498A/AAST 498A, HIST 419J/AAST 498C, EDCP 
418A/AAST 498I, AAST 498J, AAST 498L, AMST 418N/AAST 498M, and AAST 
498N.

C. The final requirement for the Minor is the successful completion of AAST 378, 
a semester-long internship at an organization that centers its efforts on Asian 
American issues. Such organizations may include governmental units, non-profit 
agencies, and on-campus organizations.

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Air Force Reserve Officer Training Corps (AFROTC) Program

2126 Cole Student Activities Building, 301-314-3242
www.afrotc.umd.edu
Director: Colonel Ernie Haendschke

The Air Force Reserve Officer Training Corps (AFROTC) provides students the opportunity to earn a commission as a second lieutenant in the United States Air Force while completing their undergraduate degree.

Four-Year Program

The four-year program is composed of a General Military Course (GMC) and the Professional Officer Course (POC). During the first two years, students participate in the GMC and receive an introduction to the Air Force and the various career fields. Students enrolled in the GMC program incur no obligation and may elect to discontinue the program at any time. The final two years (POC) concentrate on the development of leadership skills and the study of United States defense policy. Students must compete for acceptance into the POC. Students in the four-year program who successfully complete the first two years of the program and are accepted into the POC program must attend four weeks of field training at a designated Air Force base during the summer following their sophomore or junior year of college.

Two-Year Program

The two-year program option is a special program offered to entering juniors in specific technical and non-technical majors. The academic requirements for this program are identical to the final two years of the four-year program. Additionally, students are eligible to receive the same benefits. During the summer following their junior year, all candidates must attend six weeks of field training at a designated Air Force base. Students should start the application process no later than the January prior to joining the cadet corps. Please contact the AFROTC department if considering this option.

Scholarships and Incentives

AFROTC scholarship programs provide anywhere between one-half, to three and a half-year scholarships to in-college students on a competitive basis. Scholarships are available in many fields. Scholarship recipients receive tuition, lab expenses, incidental fees, book allowance (currently $750), and a non-taxable monthly allowance of a minimum of $250 up to $400 as a senior. All POCs are eligible for the monthly allowance. Any student accepted by the University of Maryland or any of the cross-town four-year schools may apply for these scholarships. AFROTC membership is required to receive an AFROTC scholarship.
Army Reserve Officer Training Corps (ROTC)

1150 Cole Student Activities Building, 301-314-9238
www.amryrotc.umd.edu
Director: Lieutenant Colonel Dennis McFadden

The Army Reserve Officer Training Corps offers students the opportunity to earn a commission as a Second Lieutenant in the United States Army (Active, Reserve, or National Guard) while completing their undergraduate degree.

Four-Year Program

The four-year program is composed of the Basic Leadership Course and the Advance Leadership Course. The first two years (Basic Course) consists of a general introduction to military customs and courtesy, soldier skills, communication skills, personal development, and introductory leadership skills. Students enrolled in the basic course incur no obligation and may discontinue the program at any time. In the final two years (Advanced Course), students concentrate on developing leadership skills in organizations. Students must have permission of the Director of Army ROTC to enroll in the advanced course. The Advanced Course requires five weeks of field training at Fort Lewis, Washington the summer after their junior year.

Two-Year Program

The two-year program is available to students with two years and a summer remaining in their university studies. The academic requirements for this program are identical to the Advanced Course in the four-year program, and students are eligible to receive the same benefits. During the summer preceding the junior year, students must attend five weeks of field training at Fort Knox, Kentucky. Students should start the application process for this option no later than January of their sophomore year.

Scholarships and Incentives

Army ROTC Scholarships are available for four, three or two years on a competitive basis. The scholarships are based solely on merit, not financial need. Those selected receive tuition and mandatory fees, a book allowance, and a non-taxable monthly allowance ranging from $350-$500 based on academic year.

Curriculum

Basic Leadership Course
Freshman Year: ARMY101 (fall) ARMY102 (Spring)
Sophomore Year: ARMY201 (Fall) ARMY202 (Spring)

Advanced Leadership Course
Junior Year: ARMY301 (Fall) ARMY302 (Spring)
Senior Year: ARMY401 (Fall) ARMY402 (Spring)

All Army ROTC courses are open to any university student for credit whether or not he or she is enrolled as a cadet in the Army ROTC program.
Beyond the Classroom

Beyond the Classroom (BTC) is an interdisciplinary living-learning program dedicated to equipping students with the educational and professional leadership skills to understand and to contribute constructively to civic engagement and social change in a global context. Students address significant civic and social issues through internship, community service, and civic learning experiences with nonprofit, nongovernmental and government organizations in the greater Washington, D.C. metropolitan area. Through its integrated academic, experiential, and service components that offer students real-world opportunities, BTC enables students to develop and to realize their potential for civic leadership at the local, national and global levels. BTC is a two-semester program open to all sophomores, juniors, and seniors.

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Center for Teaching Excellence

0405 Marie Mount Hall, 301-405-9356
www.cte.umd.edu
Director: Spencer Benson

The Center for Teaching Excellence supports departmental, individual and campus-wide efforts to enhance teaching and learning at the University of Maryland. The Center offers assistance to departments, faculty, graduate and undergraduate teaching assistants. The Center provides workshops, teaching assistant development, evaluation and support strategies for improving teaching and learning, individual consultations for faculty and graduate students, research on current teaching practices, and implementation of innovative teaching and learning strategies.

The Center also administers the Undergraduate Teaching Assistants program, a University-wide teaching and learning program for graduate teaching assistants, the Lilly Teaching Fellows program, the Instructional Improvement Grants program, and various Scholarship of Teaching and Learning programs.

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Educational Talent Search College Gateway Programs

3103 Turner Hall, 301-314-7763
www.etsp.umd.edu
Director: Shirley H. Morman

Educational Talent Search
Educational Talent Search, a discretionary early intervention grant funded by the U.S. Department of Education, increases the college participation of low-income and first-generation college students by creating an academic pipeline from middle school to high school to baccalaureate study. Authorized by the Higher Education Act of 1965, Talent Search identifies needy students and helps them take advantage of the Educational Opportunity Grant Program, now known as the Pell Grant. Based at and sponsored by the University since 1985, Talent Search identifies youth of extreme financial or cultural need with an "exceptional potential" for postsecondary education and encourages them to complete secondary school and undertake further education. It also publicizes the availability of student financial aid and encourages secondary school or college dropouts to reenter educational programs. Talent Search supplements other pre-college counseling and academic enrichment services. Program-based Talent Search Advisors work through selected Maryland schools, providing students from 6th-12th grades with a variety of services and information. The Talent Search Program also refers families to the Upward Bound Program and Upward Bound Math/Science Initiative Program for academic development and comprehensive counseling services.

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College Park Scholars Program (CPSP)

1125 Cumberland Hall, 301-314-2777
www.scholars.umd.edu
Executive Director: Greig Stewart

College Park Scholars is a multi-disciplinary, two-year living/learning program in which academically and creatively talented freshmen and sophomores explore interests that enhance or complement their choice of academic major. Upon successful completion of the selected program, students receive a College Park Scholars citation on their transcript. Course requirements for the citations vary by program; visit the Scholars website for details: www.scholars.umd.edu.

Innovative curricula plus public service, civic engagement and team activities, help prepare students for their capstone practicum internship research or service-learning projects. Scholars may also apply to departmental or college honors programs in their junior year.

Admission to College Park Scholars is selective and by invitation. Upon invitation to Scholars, students indicate their preference from the following programs:

Advocates for Children
International Studies
American Cultures
Life Sciences
Arts
Media, Self, and Society
Business, Society, and the Economy
Public Leadership
Earth, Life, and Time
Science, Discovery, and the Universe
Environmental Studies
Science, Technology, and Society

Students in each program attend weekly, faculty-led colloquia that encourage active discussion and debate. Other courses in the curriculum may be selected to satisfy general education (CORE) requirements. In the second semester of their sophomore year, students choose from independent research, service-learning projects, or internships both on and off campus for their Scholars' capstone experience.

The Program’s focus on community offers many advantages. Program faculty maintain offices in Cambridge Community residence halls; this facilitates meeting with students. Several program faculty lead study-abroad experiences between the fall and spring semesters, or during the summer. Shared interests, classes, and residence halls help students to form study groups. Scholars also enjoy meeting guest speakers and having the opportunity to continue conversations outside the classroom. Program directors encourage students to pursue leadership opportunities in co-curricular activities, design and implement community service and social events, participate in recruitment activities, or serve on the Student Advisory Board.

For more information on any of the programs identified above, write to:

Executive Director, College Park Scholars
1125 Cumberland Hall, University of Maryland,
College Park, MD 20742-9331
301-314-2777
The Colleges and Schools

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- Letters and Sciences
- Maryland Center for Undergraduate Research (MCUR)
- National Scholarship Office
- Orientation
- Pre-College Programs
- University Honors Program

CORE Liberal Arts and Sciences Studies Program

2130 Mitchell Building, 301-405-9359
www.ugst.umd.edu/core
Director CORE Planning & Implementation: Laura Slavin

To earn a baccalaureate at the University of Maryland all students complete both a major course of study and a campus-wide general education program. For more information, see Chapter 5, General Education Requirements.
Federal Semester Program

0110 Hornbake Library, 301-405-7932
www.federalsemester.umd.edu/index.html
Coordinator: Leah Howell

The Federal Semester is a twelve credit program coordinated by the Office of Undergraduate Studies in conjunction with several colleges and the Career Center. The program is designed to bring students from all disciplines together to learn, discuss and explore issues of federal policy and is available to students by application. Rising juniors and seniors with strong academic backgrounds and an interest in the federal government are encouraged to apply. The Federal Semester consists of three primary components:

1. The Federal Semester Seminar: UNIV328 (3 credits) is a seminar course focused on federal policy. Each year the course will have a thematic focus (e.g. health policy, education policy, etc). This seminar benefits from the diversity of students who participate in the Federal Semester Program. In the small seminar setting students will bring knowledge from their disciplinary focus to discussion of Federal Policy.

2. The Internship: UNIV349 (3 credits) Federal Semester Experiential Learning course coupled with an internship with a federal agency or related organization. (With permission, students may substitute an internship within their major area that has similar focus.)

3. Supporting course work: Two regular UM courses approved by the program that complement the Federal Semester mission (6 credits).

In addition, students will participate in Federal Semester Program activities including trips to Capitol Hill, seminars with invited speakers, workshops on finding and making the most of your internship, and an end-of-the-year event. Students will be recognized at graduation for their participation in the Federal Semester.

To apply students must have completed 45 credits with a grade point average of 3.0 or higher and must submit a completed application (available on the website www.federalsemester.umd.edu/index.html )
Global Communities

3117 Mitchell Building, 301-314-7100
www.globalcommunities.umd.edu
Director: Serap Rada

Global Communities provides undergraduate international and U.S. students with a living-learning environment that enhances their knowledge of the world, its cultures and people, along with complementing their academic studies. Diversity knows no borders, and an increasingly complex global society makes it imperative for students from all disciplines to learn intercultural skills in order to work and live in this new society. The program seeks to: create an awareness of cultural differences; develop the communication skills, which facilitate intercultural exchanges; understand varied cultural values and the expression of those values in diverse societies; and explore one's own culturally constructed identity. Dorchester Hall, where roommates often come from different cultures, offers a unique international environment where Global Communities students have an opportunity to apply immediately what they learn in the classroom to actual intercultural interaction in their residential experience.
Individual Studies Program

The Individual Studies Program (IVSP) is a degree-granting academic program under the direction of the Office of Undergraduate Studies. The program allows students to create new interdisciplinary curricula leading to the Bachelor of Arts or Bachelor of Science degree. Students draw primarily from the University of Maryland’s course offerings to form an academic concentration not otherwise available to them at the institution. A written prospectus that defines the student’s major and outlines the curriculum is required to apply to the program.

Students must seek the guidance and approval of a faculty mentor prior to having their prospectus reviewed by the Individual Studies Faculty Review Board. If approved, the courses agreed upon by the Faculty Review Board become the basis for the student’s major requirements. These listed requirements from numerous academic departments, along with the CORE general education requirements, are analogous in most ways to the academic requirements given to students who select from the University’s traditional majors. However, each student is required to design a unique program of study and defend it in order to be a part of IVSP.

Individual Studies students must complete a senior project and are encouraged to use internships or independent studies with faculty to supplement their work in the classroom. While IVSP programs are never vocational in nature, drawing from real-life experience as a supplement to the academic curriculum is generally encouraged. These projects often serve as a way for the students to develop academic connections among the multiple disciplines involved in their programs.

While IVSP gives students the opportunity to create a unique academic program focused on a specific area of study, using courses from multiple academic departments, it does not substitute for or replicate the educational goals of existing University programs, including the Limited Enrollment Programs (LEPs). IVSP programs may not include substantial numbers of courses from LEP departments.

Developing a successful IVSP prospectus takes time and usually involves several meetings to review and edit the draft prospectus. Interested students should contact the IVSP Coordinator and begin the application process early in their academic career. Working closely with the Coordinator and their prospective faculty mentor, students should plan to complete and submit their IVSP prospectus, preferably during their sophomore year, or in their junior year, before reaching 90 credits.

To be admitted into the Individual Studies Program the student must:

1. Have a clearly defined academic goal that cannot be reasonably satisfied in an existing curriculum at the University of Maryland, College Park.
2. Have at least 30 earned college credits with at least 12 credits completed at College Park.
3. Have a minimum of a 2.5 GPA in each of their previous two semesters of college, and at least a 2.0 GPA overall.
4. Complete at least 30 additional credits beginning the term following admission to IVSP.

1117 Hornbake Library, 301-314-8418
www.ivsp.umd.edu
IVSP Coordinator: Leah Howell
5. Identify an appropriate faculty mentor, preferably tenured or tenure track, with significant undergraduate education experience related to the field of study.

6. Complete a detailed plan of study (prospectus) which is approved by their faculty mentor and then approved by the Individual Studies Faculty Review Board. This proposal will include:

   a. A clear statement of the central academic purpose for their major.

   b. Specific course requirements including at least 27 credits of upper-division major coursework (300 & 400 level) beyond the IVSP courses: IVSP 31, IVSP 318, and IVSP 420.

   c. The list of courses must include at least one writing-craft course, in addition to the CORE Fundamental Studies Introduction to Writing, and Professional Writing requirements, selected from an approved list that is available from the Individual Studies staff.

   d. A semester-by-semester plan for the completion of their undergraduate degree within a reasonable period of time.

7. Complete the IVSP Departmental Notification Form in order to notify academic units from which they will take three or more 300-400 level courses.

**Following admission, students must:**

1. Earn a grade of C or better in all courses required in their IVSP program of study including IVSP 420, and a satisfactory grade in IVSP 317.

2. Complete mandatory advising sessions with their faculty mentor and the IVSP staff every semester, including a review of their semester-by-semester academic plan for completion of their IVSP program.

3. If not already completed, work towards immediate completion of the fundamental studies requirements for English composition and mathematics.

For more information, please visit the IVSP website at [www.ivsp.umd.edu](http://www.ivsp.umd.edu) or contact Leah Howell, IVSP Coordinator at 1117 Hornbake Library, 301-314-8418.

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The Program in Lesbian, Gay, Bisexual and Transgender Studies (LGBT) offers an interdisciplinary undergraduate certificate designed to examine the lives, experiences, identities and representations of LGBT persons, those who are today described as having a minority sexual orientation or who are gender transgressive. Students study LGBT families and communities, cultures and subcultures; histories, institutions, languages and literatures; economic and political lives; and the complex relations of sexual minorities to the culture and experience of the gender conformant and (hetero) sexual majority. LGBT Studies is an interdisciplinary and multidisciplinary field, and promotes the application of new theories and methodologies (e.g., queer, feminist, critical race, and multicultural theories) to established disciplines, and it advances the generation of new knowledge within traditional fields of scholarship. Through study of sexual minorities, students gain an understanding of and respect for other differences in human lives such as age, ability, class, ethnicity, gender, race, and religion. With their faculty advisors, certificate candidates design a program that complements their major field of study.

**Certificate Requirements:**

A. Core curriculum for the LGBT Certificate (15 credits)

1. LGBT200 Introduction to Lesbian Gay Bisexual Transgender Studies

2. One of the following:
   a. CMLT291/LGBT291
      International Perspectives on Lesbian and Gay Studies
   b. ENGL265/LGBT265
      Introduction to Lesbian, Gay, and Bisexual Literature

3. One of the following:
   a. LGBT350
      LGBT People and Communication
   b. PHIL407/LGBT407
      Gay and Lesbian Philosophy
   c. WMST494/LGBT494
      Lesbian Communities and Differences

4. One of the following:
   a. ENGL359/LGBT359
      Special Topics in Lesbian, Gay, and Bisexual Literatures
b. ENGL459/LGBT459
   Selected Topics in Sexuality and Literature

   c. ENGL465/LBGT465
   Theories of Sexuality and Literature

5. One of the following:

   a. LGBT488
      Seminar in LGBT Studies

   b. LGBT386
      Supervised Internship - LGBT Community Organizations

B. Electives (6 credits)

   Students choose 6 hours of elective credits in consultation with their advisor in LGBT Studies. At least 3 hours of elective credits must be from upper division courses (i.e., those numbered 300 or above). Students are encouraged to choose electives to complement their knowledge of LGBT people and issues by exploring disciplines that contrast with the major field of study. Students may select elective courses from the list of core courses above or from a list of approved courses. A student may also petition to have any other course fulfill this requirement by providing evidence, usually the syllabus, that a substantial amount of the course work, usually including a term paper, consists of LGBT material.

   C. Each student must obtain a grade of C or better in each course that is to be counted toward the certificate.

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Letters and Sciences

1117 Hornbake Library, Assistant Dean/Director: Deborah Reid Bryant, Ph. D.
General Advising: 301-314-8418 or 8419
Pre-Law Advising: prelaw@umd.edu
Credit-by-Exam: 301-314-9423
www.ltsc.umd.edu

Letters and Sciences is the academic home for students exploring a variety of fields before selecting a major, for post-baccalaureate students taking additional course work, and for non-degree seeking students taking undergraduate courses. Letters and Sciences may also serve as the academic home for students completing requirements for entry into a Limited Enrollment Program. Letters and Sciences advisors help students to select and schedule courses, plan academic programs, and learn about campus-wide resources. Letters and Sciences collaborates closely with college advising offices, academic departments, and programs across campus and provides a coordinated advising network that features:

Choosing a Major
Letters and Sciences students receive information about and referral to a wide range of academic programs and services including specialized workshop sessions. Letters and Sciences staff specialize in assisting students develop strategies and plans for entering Limited Enrollment Programs.

Markets and Society
Markets and Society is a program for entering freshmen interested in exploring the world of business. The Markets and Society Program helps students to learn about the field of business, refine their career goals, and interact with other students who share their interests.

Learning Communities
Learning Community programs in Letters and Sciences focus on first-year students. They combine a one-credit seminar called Introduction to the University with one or more general education (CORE) courses. The seminars facilitate major and career exploration.

Interim Advising Program
Newly admitted transfer students with more than 60 credits, who were unsuccessful in gaining admission to a Limited Enrollment Program, receive advising and assistance from a Letters and Sciences professional staff member during their first two semesters on campus. For this group of students, the University waives the requirement that all students must declare a major by 60 credits.

Pre-Law Advising
Letters and Sciences offers specialized advising for students interested in law. For further information, see the section on Pre-Law Advising in this catalog and visit www.prelaw.umd.edu

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Maryland Center for Undergraduate Research (MCUR)

2nd Floor Mc Keldin Library, 301-314-6786
www.ugresearch.umd.edu
Director: Lisa Kiely

The Maryland Center for Undergraduate Research (MCUR) is an initiative from the Office of the Dean of Undergraduate Studies. Created as a resource for faculty and students, the Center serves as a clearinghouse for both on-campus and off-campus research opportunities for undergraduate students. Additionally, faculty members can share different models for incorporating undergraduate students into research programs, and ways of infusing undergraduate research into the curriculum.

Among the programs at the MCUR are the Maryland Student Researchers program (MSR) and the Senior Summer Scholars (SSS). MSR provides an opportunity for students to work with faculty mentors on ongoing research projects. Experienced students, who are rising seniors, are encouraged to apply for funding through the Senior Summer Scholars program for summer study with a faculty member. Students new to research as well as students with previous research experience participate in this program.

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National Scholarship Office

0104 Reckord Armory, 301-314-1289
www.scholarships.umd.edu
Coordinator: Dr. Camille Stillwell

The National Scholarships Office (NSO) is committed to helping eligible University of Maryland students identify, apply for, and win national scholarships and fellowships. The process of preparing an application for a scholarship or fellowship requires careful thought and preparation through each step of the process. Resources available through the NSO provide information and advising on the many national scholarships and fellowships.

The National Scholarships Office assists in the preparation of national scholarship applications including guidance on writing a personal statement, selecting faculty members to write letters of recommendation, and participating in mock interviews to help students prepare for personal interviews that are often a part of the application process.

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Orientation

1102 Cole Field House, 301-314-8217
www.orientation.umd.edu
Director: Gerry Strumpf

The goal of Orientation is to introduce new students to the University of Maryland community. The Orientation Office offers a wide range of transitional programming and services for students and their families as they prepare to attend the University of Maryland.

New Student Orientation
Held prior to the semester a student enrolls at the University of Maryland, new student orientation for first-time freshman normally covers two days; orientation for new transfer students covers one day. During New Student Orientation, individuals meet with representatives from their academic college for advising and course scheduling. Undergraduate Orientation Advisors, introduce students to academic and student life at the University of Maryland, including student campus services and resources, and opportunities for involvement on campus.

Parent Orientation
Parents of new University of Maryland students are strongly encouraged to attend a one-day program specifically designed to introduce them to the academic, social, and cultural opportunities of the university and to better prepare them for the issues that are likely to affect their son or daughter throughout their matriculation at the University.

Forays
Faculty Forays focus on the continuing transition of parents. Offered to parents on the second day of freshman orientation, these one-day programs combine a trip to an area attraction with connections to other parents and a campus faculty or staff host.

Introduction to the University Seminars
The Orientation Office coordinates new student seminar courses, UNIV100 and 101. These courses introduce students to the world of higher education and, more specifically, to the University of Maryland. Course topics include career/major exploration, successful studying and test-taking strategies, diversity, and involvement within the university.

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The University of Maryland Pre-College Programs in Undergraduate Studies is comprised of three federally and state supported programs:

- **Two Upward Bound Programs (UB)**
- **Upward Bound-Math and Science Program (UB-MS).**

These programs generate the skills and motivation necessary for success in post-secondary education. They immerse high school participants in rigorous academic instruction, tutoring, counseling, and innovative educational experiences throughout the school year and during the six-week summer residential program. Pre-College Programs are part of the Federal TRIO Programs that provide educational opportunity outreach programs designed to motivate and support students from disadvantaged backgrounds.

The UB Programs are open to low-income and/or first-generation college bound high school students in grades 9 through 12, who demonstrate an academic need and want to pursue a four-year postsecondary education. Eligible students must attend target high schools in Prince George's and Montgomery Counties. High school principals, teachers, and counselors recommend students to the program.

Eligibility for the Upward Bound Programs requires that students attend Montgomery Blair, Wheaton, Central, High Point, or Bladensburg High Schools.

The UB-MS is open to students in grades 10 through 12, who demonstrate an academic need and want to pursue post-secondary education programs in fields related to mathematics and science. UB-MS recruits high school students from Potomac and Fairmont Heights High Schools in Prince George’s County, MD; Watkins Mill High School in Montgomery County, MD, Edmonston-Westside High School in Baltimore, MD and Bell High School in Washington, DC.

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The University Honors Program offers special educational opportunities and resources to students with exceptional academic talents. Honors students combine Honors course work with studies in their majors and elective courses to deepen their total educational experience. They broaden their intellectual horizons by selecting Honors (HONR) seminars and Honors versions of some regular courses. Honors seminars offer small class size (capped at 20 students) and academic experiences characterized by active participation, intensive writing, and outstanding faculty who encourage critical thinking and innovation. Most Honors seminars fulfill CORE (general education) requirements.

Students in the University Honors Program may earn an Honors Citation by taking five Honors courses plus a one-credit colloquium and by maintaining an overall 3.2 GPA. Anne Arundel Hall, the Honors Living/Learning Center, houses 100 Honors students, the program offices, a scholar-in-residence, the Portz Library, seminar rooms, faculty office, and lounges. Honors students also live and study together in Queen Anne's, Denton, Wicomico, and Ellicott Halls; many upperclassmen enjoy apartment-style housing in South Campus Commons.

Acceptance of first-year students into the University Honors Program is by invitation based on the standard application to the University of Maryland (by December 1st for best consideration for Honors and merit scholarships). Students with one or two semesters of full-time college work (excluding AP credits) completed at the University of Maryland or another institution may apply for admission to Honors. Honors Humanities, www.honorshumanities.umd.edu and Gemstone, www.gemstone.umd.edu are more specialized programs within University Honors; they are described under their own headings in this catalog. In addition to the University Honors Program, about 40 departments or colleges offer advanced, discipline-based Honors programs that provide enriched opportunities, typically involving work with faculty mentors on independent research projects. Most departmental and college Honors programs begin in the junior year; please contact them directly for the admission requirements.
Chapter 7: Departments, Majors, and Programs

- Accounting (BMGT)
- Aerospace Engineering (ENAE)
- African American Studies (AASP)
- African American Studies Certificate
- Agricultural Science and Technology (AGST)
- Agricultural & Resource Economics (AREC)
- American Studies (AMST)
- Animal & Avian Sciences (ANSC)
- Anthropology (ANTH)
- Applied Mathematics and Scientific Computation Program (AMSC)
- School of Architecture, Planning, & Preservation (ARCH)
- Art (ARTT)
- Art History & Archaeology (ARTH)
- Asian and East European Languages and Cultures (AEEL)
- Asian American Studies Certificate
- Asian American Studies (AASP)
- Asian American Studies Certificate
- Atmospheric & Oceanic Science (ATMOS)
- Astronomy (ASTR)
- Bioengineering Department (BIOE)
- Biological Sciences Program (BSCI)
- Biology (BIOL)
- Business, General
- Cell Biology & Molecular Genetics (CEBG)
- Central European, Russian and Eurasian Studies (CERE)
- CERTIFICATE PROGRAMS (UNDERGRADUATE)
- Chemistry & Biochemistry (CHEM, BCHM)
- Chemical & Biomolecular Engineering (ENCH)
- Chinese (CHIN)
- Civil & Environmental Engineering (ENCE)
- Classics (CLAS)
- Communication (COMM)
- Comparative Literature Program (CMLT)
- Computer Engineering (ENCP)
### Undergraduate Certificate Programs

- Atmospheric & Oceanic Science (ATMOS)
- Fischell Department of Bioengineering (BIOE)
- Biological Sciences Program (BSCI)
- Biology (BIOL)
- Business, General
- Cell Biology & Molecular Genetics (CEBG)
- Central European, Russian and Eurasian Studies (CERE)
- Chemistry & Biochemistry (CHEM, BCHM)
- Chemical & Biomolecular Engineering (ENCH)
- Chinese (CHIN)
- Civil & Environmental Engineering (ENCE)
- Classics (CLAS)
- Communication (COMM)
- Comparative Literature Program (CMLT)
- Computer Engineering (ENCP)
- Computer Science (CMSC)
- Counseling & Personnel Services (EDCP)
- Criminology & Criminal Justice (CCJS)
- Curriculum and Instruction - Elementary Education (EDCI)
- Curriculum and Instruction - Secondary Education (EDCI)
- Dance (DANC)
- Decision & Information Technology (BMGT)
- Dietetics
- East Asian Studies Certificate
- Economics (ECON)
- Education Policy & Leadership (EDUC)
- Electrical Engineering (ENEE)
- Engineering, Bachelor of Science (ENGR)
- English (ENGL)
- Entomology (ENTM)
- Environmental Science and Policy (ENSP)
- Environmental Science and Technology (ENST)
- Family Studies (FMST)
- Finance (BMGT)
- Fire Protection Engineering (ENFP)
- French and Italian (FRIT)
- French Language and Literature (FREN)
- Geography (GEOG)
- Geology (GEOL)
- Germanic Studies (GERM)
- Government & Politics (GVPT)
- Health
- Hearing & Speech Sciences (HESP)
- History (HIST)
- Horticulture
- Human Development/Institute for Child Study (EDHD)
- Individual Studies Program
- Information Systems: Specialization Business
- International Agriculture and Natural Resources Certificate
- International Business
- Italian Language and Literature (ITAL)
- Japanese (JAPN)
- Jewish Studies Program (JWST)
- Journalism
- Kinesiology (KNES)
- Landscape Architecture (LARC)
- Languages, Literatures, and Cultures, School of (SLLC)
Environmental Science and Policy (ENSP)
Environmental Science and Technology (ENST)
Family Studies (FMST)
Finance (BMGT)
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Italian Language and Literature (ITAL)
Japanese (JAPN)
Jewish Studies Program (JWST)
Journalism
Kinesiology (KNES)
Landscape Architecture (LARC)
Languages, Literatures, and Cultures, School of (SLLC)
Latin American Studies Certificate
Lesbian, Gay, Bisexual and Transgender Studies Certificate
Letters and Sciences
Linguistics (LING)
Logistics, Business & Public Policy (BMGT)
Logistics, Transportation and Supply Chain Management
Marketing (BMGT)
Mathematics (MATH)
Materials Science & Engineering (ENMA, ENNU)
Mathematical Statistics Program (STAT)
Measurement, Statistics & Evaluation (EDMS)
Mechanical Engineering (ENME)
Meteorology
Microbiology
School of Music (MUSC)
Natural Resources Management (NRMT)
Natural Resource Sciences (NRSC)
Nutrition and Food Science (NFSC)
Operations Management
Other For-Credit Programs
Philosophy (PHIL)
Physical Sciences Program (PSCI)
Physical Education
Physics (PHYS)
Plant Sciences (PLSC)
Plant Biology
Pre-Health Professions Advising and Programs
Pre-Professional Advising: Law
Pre-Professional Advising: Pre-Veterinary Medicine
Psychology (PSYC)
Public & Community Health (HLTH)
Romance Languages (ROML)
Russian Language and Culture (RUSS)
Secondary Education, Upper Division Certificate
Science, Technology and Society Certificate
Sociology (SOCY)
Spanish Language and Literature (SPAN)
Spanish and Portuguese Languages and Literatures (SPAP)
Special Education (EDSP)
Speech Communication
Statistics
Theatre (THET)
Policy (BMGT)
Logistics, Transportation and Supply Chain Management
Marketing (BMGT)
Mathematics (MATH)
Materials Science & Engineering (ENMA, ENNU)
Mathematical Statistics Program (STAT)
Measurement, Statistics & Evaluation (EDMS)
Mechanical Engineering (ENME)
Meteorology
Microbiology
School of Music (MUSC)
Natural Resources Management (NRMT)
Natural Resource Sciences (NRSC)
Nutrition and Food Science (NFSC)
Operations Management
Other For-Credit Programs
Philosophy (PHIL)
Physical Sciences Program (PSCI)
Physical Education
Physics (PHYS)
Plant Sciences (PLSC)
Plant Biology
Pre-Health Professions Advising and Programs
Pre-Professional Advising: Law
Pre-Professional Advising: Pre-Veterinary Medicine
Psychology (PSYC)
Public & Community Health (HLTH)
Romance Languages (ROML)
Russian Language and Culture (RUSS)
Secondary Education, Upper Division Certificate
Science, Technology and Society Certificate
Sociology (SOCY)

• Women's Studies (WMST)
• Women's Studies Certificate
• Zoology
Spanish Language and Literature (SPAN)
Spanish and Portuguese Languages and Literatures (SPAP)
Special Education (EDSP)
Speech Communication
Statistics
Theatre (THET)
Women's Studies (WMST)
Women's Studies Certificate
Zoology

Approved Courses
University of Maryland, College Park and University of Maryland Administrators and Faculty

Appendices
ACCOUNTING (BMGT)

The Robert H. Smith School of Business
1570 Van Munching Hall, 301-405-2286
www.rhsmith.umd.edu/undergrad

Chair: M. Loeb
Professors: L. Gordon, O. Kim, M. Loeb, S. Loeb
Lecturers: G. Bulmash (Tyser Teaching Fellow), J. Cowling (Tyser Teaching Fellow), J. McKinney (Tyser Teaching Fellow)
Visiting Faculty: M. Finch (Tyser Teaching Fellow)

Accounting, in a limited sense, is the analysis, classification, and recording of financial events and the reporting of the results of such events for an organization. In a broader sense, accounting consists of all financial systems for planning, controlling, and appraising performance of an organization. Accounting includes among its many facets: financial planning, budgeting, accounting systems, financial management controls, financial analysis of performance, financial reporting, internal and external auditing, and taxation. The accounting curriculum provides an educational foundation for careers in public accounting, management, whether in private business organizations, government or nonprofit agencies, or consulting. Two tracks are provided: The Public Accounting Track leading to the CPA (Certified Public Accounting) and the Management Accounting/Consulting Track. Please note: Currently, only the Public Accounting track is available.

Admission to the Major

See Robert H. Smith School of Business entry in chapter 6 for admission requirements.

Requirements for the Major

Note: Curriculum under review. Please see www.rhsmith.umd.edu/undergrad for the most current information.

<table>
<thead>
<tr>
<th>All Accounting Majors:</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT310 Intermediate Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BMGT311 Intermediate Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BMGT321 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BMGT326 Accounting Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Accounting Majors must complete an additional 12 credits from one of the following tracks.

<table>
<thead>
<tr>
<th>Public Accounting Track:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT323 Taxation of Individuals*</td>
<td>3</td>
</tr>
<tr>
<td>BMGT411 Ethics and Professionalism in Accounting*</td>
<td>3</td>
</tr>
<tr>
<td>BMGT422 Auditing Theory &amp; Practice*</td>
<td>3</td>
</tr>
</tbody>
</table>

One of the following: 3

<p>| BMGT417 Taxation of Corporations, Partnerships and Estates | |
| BMGT423 Fraud Examination | |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT424</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>BMGT427</td>
<td>Advanced Auditing Theory &amp; Practice</td>
<td></td>
</tr>
<tr>
<td>BMGT428</td>
<td>Special Topics in Accounting</td>
<td></td>
</tr>
</tbody>
</table>

**Management Accounting/Consulting Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT426</td>
<td>Advanced Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BMGT305</td>
<td>Survey of Business Information Systems and Technology</td>
<td>9</td>
</tr>
<tr>
<td>BMGT323</td>
<td>Taxation of Individuals*</td>
<td></td>
</tr>
<tr>
<td>BMGT332</td>
<td>Operations Research for Management Decisions</td>
<td></td>
</tr>
<tr>
<td>BMGT385</td>
<td>Operations Management</td>
<td></td>
</tr>
<tr>
<td>BMGT402</td>
<td>Database Systems</td>
<td></td>
</tr>
<tr>
<td>BMGT403</td>
<td>Systems Analysis and Design</td>
<td></td>
</tr>
<tr>
<td>BMGT411</td>
<td>Ethics and Professionalism in Accounting*</td>
<td></td>
</tr>
<tr>
<td>BMGT417</td>
<td>Taxation of Corporations, Partnerships and Estates</td>
<td></td>
</tr>
<tr>
<td>BMGT423</td>
<td>Fraud Examination</td>
<td></td>
</tr>
<tr>
<td>BMGT424</td>
<td>Advanced Accounting</td>
<td></td>
</tr>
<tr>
<td>BMGT428</td>
<td>Special Topics in Accounting</td>
<td></td>
</tr>
<tr>
<td>BMGT430</td>
<td>Linear Statistical Models in Business</td>
<td></td>
</tr>
<tr>
<td>BMGT434</td>
<td>Introduction to Optimization</td>
<td></td>
</tr>
<tr>
<td>BMGT440</td>
<td>Advanced Financial Management</td>
<td></td>
</tr>
<tr>
<td>BMGT446</td>
<td>International Finance</td>
<td></td>
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</table>

**Upper Level Economics Requirement**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON305</td>
<td>Intermediate Macroeconomic Theory and Policy</td>
<td>3</td>
</tr>
<tr>
<td>ECON306</td>
<td>Intermediate Microeconomic Theory</td>
<td></td>
</tr>
<tr>
<td>ECON330</td>
<td>Money and Banking</td>
<td></td>
</tr>
<tr>
<td>ECON340</td>
<td>International Economics</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits for Accounting and Economics**

* Required for CPA in Maryland

In addition to the major requirements listed above, please consult Chapter 6 or [www.rhsmith.umd.edu](http://www.rhsmith.umd.edu) for a listing of additional Smith School degree requirements that apply to all Smith School majors.

The basic educational requirements of the Maryland State Board of Public Accountancy to sit for the CPA examination are a baccalaureate or higher degree with a major in Accounting or with a non-accounting degree supplemented by course work the Board determines to be substantially the equivalent of an Accounting major. Students planning to take the CPA examination for certification and licensing outside Maryland should determine the educational requirements for that state and arrange their program accordingly.

Since June 30, 1999, all applicants who desire to take the CPA examination in Maryland have been required to have completed 150 semester hours of college work as well as other specified requirements.
Aerospace Engineering (ENAE)

A. James Clark School of Engineering
3181 Glenn L. Martin Hall, 301-405-2376
www.aero.umd.edu

Chair: D. Pines (Professor & Chair)
Associate Professors: D. Akin, J. Baeder, C. Cadou, R. Sanner, B. Shapiro, A. Winkelmann, K. Yu
Assistant Professors: J. Humbert
Instructors: R. Starkey (Asst Res Sci)
Affiliate Assistant Professors: A. Marshall (Affiliate Asst Prof)
Adjunct Professors: R. Tolson
Professors Emeriti: J. Anderson, E. Jones
Visiting Faculty: M. Bowden (Visit Asst Prof), R. Korkegi (Visit Prof), F. Schmitz (Visit Prof), M. Tishchenko (Visit Prof)

The Major

Aerospace engineering is concerned with the processes, both analytical and creative, that are involved in the design, manufacture and operation of aerospace vehicles within and beyond planetary atmospheres. These vehicles range from helicopters and other vertical takeoff aircraft at the low-speed end of the flight spectrum, to spacecraft traveling at thousands of miles per hour during launch, orbit, transplanetary flight, or re-entry, at the high-speed end. In between there are general aviation and commercial transport aircraft flying at speeds well below and close to the speed of sound, and supersonic transports, fighters, and missiles which cruise supersonically. Although each speed regime and each vehicle poses its special problems, all aerospace vehicles can be addressed by a common set of technical specialties or disciplines.

The subdisciplines of Aerospace Engineering are: aerodynamics, flight dynamics, propulsion, structures, and "design". Aerodynamics addresses the flow of air and the associated forces, moments, pressures, and temperature changes. Flight-dynamics addresses the motion of the vehicles including the trajectories, the rotational dynamics, the sensors, and the control laws required for successful accomplishment of the missions. Propulsion addresses the engines which have been devised to convert chemical (and occasionally other forms) energy into useful work, to produce the thrust needed to propel aerospace vehicles. Structures addresses material properties, stresses, strains, deflection, and vibration along with manufacturing processes as required to produce the very light weight and rugged elements needed in aerospace vehicles. Aerospace "design" addresses the process of synthesizing vehicles and systems to meet defined missions and more general needs. This is a process that draws on information from the other subdisciplines while embodying its own unique elements. The Aerospace Engineering program is designed to provide a firm foundation in the various subdisciplines.

Courses offered by this department may be found under the following acronym: ENAE

Program Objectives

1. Prepare future aerospace engineers who will be successful in their careers, including industry, government service, and academia, in the State of Maryland and beyond.
2. Prepare students to solve relevant problems in a) aerodynamics, b) structures, c) dynamics and controls, d) propulsion, and e) systems and design, with a focus in either the aeronautical or space areas.

3. Enable students to relate their fundamental physics, math and engineering studies to the many practical aspects of aerospace engineering research, development, and practice.

4. Prepare future aerospace engineers who are able to integrate their knowledge of engineering sub-disciplines to produce useful product designs.

5. Promote innovative educational activities to challenge students and improve the learning experience, including design presentations, hands-on laboratory experiences, novel use of Internet information technology, and independent research projects.

6. Seek continually to improve course offerings and curricula, while attracting the best students possible and improving the national stature of the program.

7. Prepare future aerospace engineers who understand the context in which their profession is practiced, and who are able to adapt to future developments in both technology and the employment market.

**Program Learning Outcomes**

1. Students will develop critical reasoning and thinking skills.
2. Students will develop written and oral communication skills.
3. Students will develop science and quantitative reasoning skills.
4. Students will develop information literacy skills.
5. Students will develop technology fluency.

**Academic Programs and Departmental Facilities**

The Aerospace Engineering Department has facilities to support education and research across a range of special areas. There are subsonic wind tunnels with test sections ranging from a few inches up to 7.75 feet by 11.00 feet as well as a supersonic tunnel with a 6 inch by 6 inch test section. There are a number of structural test machines with capabilities up to 220,000 pounds for static loads and 50,000 pound for dynamic loads. There are experimental facilities to test helicopter rotors in hover, in forward flight, and in vacuum to isolate inertial loads from aerodynamic loads. There is an anechoic chamber for the investigation of noise generated by helicopters, and an autoclave and other facilities for manufacturing and inspecting composite structures. There is a neutral buoyancy facility for investigating assembly of space structures in a simulated zero gravity environment which is supported by robots and associated controllers. There are many personal computers and workstations that provide local computing capability and extensive network access to campus mainframes, supercomputing centers, and all the resources of the Internet.

**Admission to the Major**

Admission requirements are the same as those of other Engineering Departments. Please consult Chapter 1.

**Requirements for the Major**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Freshman Year</th>
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<tbody>
<tr>
<td>ENES100</td>
<td>3</td>
<td>Introduction to Engineering Design</td>
</tr>
<tr>
<td>ENAE100</td>
<td>1</td>
<td>The Aerospace Engineering Profession</td>
</tr>
<tr>
<td>CHEM135</td>
<td>3</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>MATH140/141</td>
<td>4</td>
<td>Calculus I, II</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Credits</th>
<th>First Sem</th>
<th>Second Sem</th>
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<tbody>
<tr>
<td>10</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>PHYS161</td>
<td>General Physics I</td>
<td>3</td>
</tr>
<tr>
<td>ENES102</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>ENAE202</td>
<td>Aerospace Computing</td>
<td>3</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE Program Requirements</td>
<td>3</td>
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<tr>
<td></td>
<td><strong>Total Credits</strong></td>
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**Sophomore Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENES220</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENAE283</td>
<td>Introduction to Aeronautical Systems</td>
<td>3</td>
</tr>
<tr>
<td>MATH241</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>ENAE200</td>
<td>The Aerospace Engineering Profession II</td>
<td>1</td>
</tr>
<tr>
<td>ENME232</td>
<td>Thermodynamics OR</td>
<td>3</td>
</tr>
<tr>
<td>ENME320</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH246</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH461</td>
<td>Linear Algebra for Scientists and Engineers, OR</td>
<td></td>
</tr>
<tr>
<td>MATH 240</td>
<td>Introduction to Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>PHYS260/261</td>
<td>General Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS270/271</td>
<td>General Physics III</td>
<td>4</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE Program Requirements</td>
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<td></td>
<td><strong>Total Credits</strong></td>
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**Junior Year**

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>ENAE311</td>
<td>Aerodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>ENAE301</td>
<td>Dynamics of Aerospace Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENAE362</td>
<td>Aerospace Instrumentation and Experiments</td>
<td>3</td>
</tr>
<tr>
<td>ENAE324</td>
<td>Aerospace Structures</td>
<td>4</td>
</tr>
<tr>
<td>ENAE432</td>
<td>Control of Aerospace Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENAE380</td>
<td>Flight Software Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENGL393</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE Program Requirements</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Aeronautical Track:</strong></td>
<td></td>
</tr>
<tr>
<td>ENAE441</td>
<td>Aerodynamics II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Space System Track:</strong></td>
<td></td>
</tr>
<tr>
<td>ENAE404</td>
<td>Space Flight Dynamics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

**Senior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENAE464</td>
<td>Aerospace Engineering Lab</td>
<td>3</td>
</tr>
<tr>
<td>ENAE423</td>
<td>Vibration &amp; Aeroelasticity</td>
<td>3</td>
</tr>
<tr>
<td>ENAE398*</td>
<td>Honors Research Project, OR</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 400s*</td>
<td>one 400 level ENAE course</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE+</td>
<td>Technical Elective; see note below</td>
<td>3</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE Program Requirements</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Aeronautical Track:</strong></td>
<td></td>
</tr>
<tr>
<td>ENAE403</td>
<td>Aircraft Flight Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENAE455</td>
<td>Aircraft Propulsion &amp; Power</td>
<td>3</td>
</tr>
<tr>
<td>ENAE481</td>
<td>Principles of Aircraft Design</td>
<td>3</td>
</tr>
<tr>
<td>ENAE482</td>
<td>Aeronautical Systems Designs</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Space System Track:</strong></td>
<td></td>
</tr>
</tbody>
</table>
Minimum Degree Requirements: The fulfillment of all Department, School, and University requirements. A minimum of 124 credits are required for an Aerospace Engineering degree.

Students must select a track. All courses in either the Aeronautical or the Space Systems track must be completed. Students in either track who wish to gain a broader education across the aeronautical or space application areas can take courses required in the other track as electives.

Aerospace Electives

The Department offers a range of electives. The following courses have recently been offered as electives for the undergraduate degree:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENAE 415</td>
<td>Helicopter Theory</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 416</td>
<td>Viscous Flow &amp; Aerodynamic Heating</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 424</td>
<td>Design &amp; Manufacture of Computer Prototypes</td>
<td></td>
</tr>
<tr>
<td>ENAE 425</td>
<td>Mechanics of Composite Structures</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 426</td>
<td>Computer-Aided Structural Analysis and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>ENAE 471</td>
<td>Aircraft Flight Testing</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 488B</td>
<td>Intro to Computational Structural Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 488M</td>
<td>High Speed Aerodynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 488P</td>
<td>Product Design</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 488R</td>
<td>Hybrid Rocket Design</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 488W</td>
<td>Design of Remotely Piloted Vehicles</td>
<td>3</td>
</tr>
<tr>
<td>ENAE 499</td>
<td>Elective Research (Repeatable to 6 credits)</td>
<td>1-3</td>
</tr>
</tbody>
</table>

*Only one of ENAE 398, 488 or 499 may be used for these electives.

+One 300/400 level course in Engineering, Mathematics, or Physical Sciences that has been approved for this purpose by the Undergraduate Program Director.

Advising

Advising is mandatory. Each student is assigned to a faculty member who must be consulted and whose permission is required for course registration each semester. The list of advisor assignments is available in the main office, 301-405-2376.

Internships

Participation in an internship or other experiential learning opportunity is encouraged. See the office for Engineering Co-op and Career Services for details.

Co-op Programs

Participation in the Cooperative Education Program is encouraged. See Chapter 1 for details.

Honors Program

Academically talented students will be invited to participate in the Aerospace Honors program. Honors sections of ENAE 283, ENAE 311, and ENAE 423 are offered as part of this program, in addition to an honors research project, ENAE 398H, which culminates in a scholarly paper and
presentation at a professional conference.

**Student Societies and Professional Organizations**

The Department is home to student chapters of the American Institute of Aeronautics and Astronautics, American Helicopter Society - International, and the Sigma Gamma Tau aerospace engineering honor society. Aerospace Engineering students are also frequent participants in student activities of the Society for Advancement of Materials and Process Engineering.

**Scholarships and Financial Assistance**

The Department offers academic scholarships and recipients are chosen based on merit. All admitted and current students in the department are automatically considered for these awards. No separate application is required. The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: [www.financialaid.umd.edu](http://www.financialaid.umd.edu).

**Awards and Recognition**

The Department offers the following awards: Academic Achievement Award for the senior with the highest overall academic average at graduation; R.M. Rivello Scholarship Award and the Stephen Guthrie Memorial Award for highest overall academic average through the junior year; Sigma Gamma Tau Outstanding Achievement Award for scholarship and service to the student chapter and the department; American Helicopter Society Outstanding Achievement Award for service to the student chapter and the department; American Institute of Aeronautics and Astronautics Outstanding Achievement Award for scholarship and service to the student chapter and the department.

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African American Studies (AASP)

College of Behavioral and Social Sciences
2169 Lefrak Hall, 301-405-1158
www.bsos.umd.edu/aasp/
Chair: S. Harley
Professors: E. Wilson
Associate Professors: D. Gaskin, F. Wilson
Assistant Professors: M. Chateauvert, O. Johnson, S. Madhavan, J. Gordon Nembhard, J. Richardson
Lecturers: J. England, I. Kargbo, J. Semper

The Major

The African American Studies Department offers a Bachelor of Arts degree with two highly-regarded options: a Cultural and Social Analysis Concentration with emphasis on culture and history; or the Public Policy Concentration with an emphasis on problem-solving, analytical decision-making, and practical applications of policy analysis and management skills. In addition, students who elect majors in other departments can earn a Certificate in African American Studies. In September 2004, we introduced a minor in Black Women's Studies which is a collaborative program with the University's Department of Women's Studies.

Courses offered in this department may be found under the acronym AASP.

Program Objectives

The field of African American Studies has been an explicitly interdisciplinary one from its earliest formulation at the turn of the twentieth century by W. E. B. Du Bois, Carter G. Woodson, and other scholars. Since the 1960s, it has developed as a coherent field of study with well-developed methods, theories, and pedagogy. We believe that the African American Studies Department at the University of Maryland, College Park has a distinctive intellectual and programmatic focus that continues in this tradition and extends it through situating the study of peoples of African descent at the intersection of cultural and historical studies and the social sciences.

AASD's current program continues the tradition of employing a social scientific approach to the study of the African American experience that involves a concomitant understanding of African Americans' public policy needs. The program reflects the strengths and disciplinary specialties of our own faculty in history, political science, public policy, economics, community development, and research methodology and analysis.

Program Learning Outcomes

A primary goal of the program is to develop strong critical thinking, research and writing skills, through our curriculum, such that AASD majors learn the interdisciplinary methods used in examining the socio-economic, historical, and political experiences and contributions of people of African descent. Students should acquire the following knowledge and skills:

1. Content: ability to identify, describe, and relate central themes, methods, and scholarly development of the field of African American Studies.

   2. Critical Thinking: students develop a clear understanding of the richness and complexity of the interdisciplinary scholarship in African American Studies.
3. Students can design and develop the foundations of their own research/thesis projects, specifically, a thesis statement, abstract, and annotated bibliography.

**Admission to the Major**

Students wishing to major in African American Studies must make an advising appointment for an orientation to the major. Students must complete an application and attend a BSOS academic plan workshop.

Please call the AASD office at 301-405-1158 to make an advising appointment.

**Requirements for the Major**

Students must earn a grade of C (2.0) or better in each course that is to be counted toward completion of degree requirements. All related or supporting courses in other departments must be approved by an AASP faculty advisor.

**Foundation courses required for all majors:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AASP100</td>
<td>Introduction to African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>AASP101</td>
<td>Public Policy and the Black Community <em>(Formerly AASP300)</em></td>
<td>3</td>
</tr>
<tr>
<td>AASP200</td>
<td>African Civilization</td>
<td>3</td>
</tr>
<tr>
<td>AASP202</td>
<td>Black Culture in the United States</td>
<td>3</td>
</tr>
<tr>
<td>AASP297</td>
<td>Research Methods in African American Studies <em>(Formerly AASP299R)</em></td>
<td>3</td>
</tr>
<tr>
<td>CORE</td>
<td>Liberal Arts and Sciences</td>
<td>43</td>
</tr>
</tbody>
</table>

**Cultural and Social Analysis Concentration Requirements:**

ELECT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>300/400</td>
<td>Upper-Division Electives in African American Studies</td>
<td>18</td>
</tr>
</tbody>
</table>

**Seminars**

*One from:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AASP397</td>
<td>Senior Thesis</td>
<td>3-6</td>
</tr>
<tr>
<td>AASP386/396</td>
<td>Experiential Learning / Independent Study Non-Thesis Option</td>
<td>3</td>
</tr>
</tbody>
</table>

*One from:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AASP400</td>
<td>Directed Readings in African American Studies</td>
<td>3</td>
</tr>
<tr>
<td>AASP402</td>
<td>Classic Readings in African American Studies</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits**: 82-85

**Public Policy Concentration Requirements:**

**Analytic Component**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AASP 301</td>
<td>Applied Policy Analysis and the Black Community <em>(Formerly AASP428J)</em></td>
<td>3</td>
</tr>
<tr>
<td>AASP 303</td>
<td>Computer Applications in African American Studies <em>(Formerly AASP428P)</em></td>
<td>3</td>
</tr>
<tr>
<td>AASP 305</td>
<td>Theoretical, Methodological, and Policy Research Issues in African American Studies <em>(Formerly AASP401)</em></td>
<td>3</td>
</tr>
<tr>
<td>ECON 200</td>
<td>Principles of Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Macroeconomics</td>
<td>4</td>
</tr>
</tbody>
</table>

*One additional analytical skills course outside of AASP, with AASP approval*

*One from:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT100</td>
<td>Elementary Statistics and Probability</td>
<td>3</td>
</tr>
<tr>
<td>SOCY 201</td>
<td>Introductory Statistics for Sociology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Equivalent Statistics Course <em>(Sophomore Year)</em></td>
<td></td>
</tr>
</tbody>
</table>

**Policy Electives in African American Studies**: 9

**Final Option**: 3-6

*One from:
AASP397 Senior Thesis
AASP386/396 Experiential Learning / Independent Study Non-Thesis

Total Credits 93-96

*Upper-division AASP electives in the policy area (AASP numbers 499A-Z) or, with approval, elective courses outside of AASP

Certificate

The Certificate in African American Studies offers undergraduate students an excellent opportunity to develop a specialization in African American issues while pursuing a major in another field. Certificate students learn about the social, economic, political, and cultural history of the African American people through a concentration of courses they plan with the AASD Academic Advisor. Courses taken toward the certificate also may be used to satisfy core requirements and electives.

Earning a Certificate in African American Studies gives students a competitive advantage in the job market by adding greater focus to their undergraduate experience.

Please see catalog section on "Certificate Programs" for more information and requirements for a Certificate in African American Studies.

Advising

The African American Studies Department has mandatory advising for all AASD majors.

Undergraduates in good academic standing may enroll in the African American Studies Department or obtain more information about available options and services by contacting the Undergraduate Academic Advisor, African American Studies Department, 2169 Lefrak Hall, University of Maryland, College Park, MD 20742, 301-405-1158.

Internships

AASP 386 - Experiential Learning in African American Studies was developed to enable majors and certificate students to formally link their academic studies to experiences as undergraduate teaching assistants and interns, and to do so in a structured learning context.

The internship requires students to work closely with their site supervisors. Students are required to fulfill the job responsibilities and work the number of hours per week that is outlined in their learning proposals. Site supervisors define specific job responsibilities and assignments, monitor their training, and evaluate their performance at the end of the semester by completing an evaluation form and submitting a letter of recommendation to be included in their portfolios.

Interns must participate in a weekly seminar, and complete the assigned projects aimed at bringing together academic research, reflective work, and professional development.

Honors Program

Academically talented undergraduates may enroll in the University Honors Program with a specialization in African American Studies. The Honors Program includes seminars and lectures presented by distinguished University of Maryland, College Park, faculty and guests. A reduced ratio of students to faculty ensures more individualized study.

BA/MPP Program

In this innovative joint program, candidates earn a bachelor’s degree in African American Studies and a master’s degree in public policy after approximately five years. The BA/MPP is designed to integrate the study of the history, culture, and life of African Americans with technical skills,
training, and techniques of contemporary policy analysis. The program also features a summer component that includes a lecture series, research opportunities, and special seminars.

Students who are interested in the BA/MPP program can contact the African American Studies Department at 301-405-1158 for application details.

**Options for Study with AASP**

For students who major in other departments, the African American Studies Program offers three options for study:

1. Students may obtain a certificate in African American Studies by completing 21 credit hours of course work. For more information on the African American Studies Certificate, see the section on campus-wide programs later in this chapter.

2. Students may designate African American Studies as a double major, completing the major requirements for both AASP and another program.

3. AASP can be a supporting area of student for majors such as Computer Science, Business, or Engineering.

4. Students may obtain a minor in Black Women Studies by completing 15 credit hours of coursework.

**Student Societies and Professional Organizations**

AASD majors have the opportunity of being well prepared for leadership positions in campus organizations. AASD majors have historically held notable positions at the University of Maryland in such organizations as the NAACP, Alpha Nu Omega Sorority, Incorporated and The Black Student Union.

The Society of African American Studies is the student-run organization associated with and supported by the department. The Society provides community service in local schools, hosts on-campus programs and events, and annually has supported a local family through its "Adopt-a-Family" program.

The Society sponsors a "Saturday Freedom School" program each year which brings middle school children from a local Prince George's County Public School to campus for seven consecutive Saturdays. The program provides mentoring and academic support that seeks to foster the development of positive Black identities in the student participants, while strengthening their academic performance.

**Scholarships and Financial Assistance**

John B. and Ida Slaughter Scholarship.

[Return to top](#)
African American Studies Certificate

College of Behavioral and Social Sciences
2169 LeFrak Hall, 301-405-1158
www.bsos.umd.edu/aasp/

The African American Studies Certificate program offers the opportunity to develop a specialization in African American studies while pursuing a major in another field. Certificate students learn about the social, economic, political, and cultural history of African American people through a concentration of courses (21 credit hours). Courses taken toward the certificate also may be used to satisfy CORE requirements and electives. Undergraduates in good standing may apply for the program by contacting the academic advisor of the African American Studies Department in 2169 LeFrak Hall. Students pursuing the certificate must meet the University’s general education (CORE) and department requirements. See also the African American Studies department listing earlier in chapter 7.

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Agricultural Science and Technology (AGST)

College of Agriculture and Natural Resources
2102 Plant Sciences Building, 301-405-4355
www.psla.umd.edu
khunt@umd.edu
Chair: W. Kenworthy (Professor and Acting Chair)
Director: D. Glenn (Assoc Prof)

The Major

Agricultural Sciences and Technology is a science based curriculum that allows students to obtain technological skills in a broad area of agricultural studies. Agricultural Sciences and Technology students are required to take courses in Agricultural Economics, Animal Sciences, Environmental Science and Technology, Plant Science and Pest Management. The high number of restricted and non-restricted electives in this curriculum allows students the flexibility to develop an academic program compatible with their personal interests. Students majoring in this curriculum are strongly advised to choose two primary areas of concentration. For example, students may want to develop expertise in both Animal Science and Crop Science.

In addition to offering this curriculum, the Department of Plant Science and Landscape Architecture also offers two other undergraduate degrees: the Bachelor of Science (B.S.) and the Bachelor of Landscape Architecture (BLA). These programs are described elsewhere in the catalog under "Plant Sciences" and "Landscape Architecture."

Courses offered by this department may be found under the following acronyms: PLSC and LARC.

Program Learning Outcomes

- Students will develop technical and knowledge-based skills in the required areas of study.
- Students will use technical and basic learned knowledge to collaborate, solve problems and then articulate conclusions.
- Students shall develop effective communication skills and demonstrate the ability to present ideas with clarity to an appropriate audience.
- Students will connect and build relationships with external groups in the appropriate fields of study.

Requirements for the Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC101</td>
<td>Principles of Animal Science</td>
<td>3</td>
</tr>
<tr>
<td>ANSC</td>
<td>ANSC**</td>
<td>3</td>
</tr>
<tr>
<td>ANSC220</td>
<td>Livestock Management</td>
<td>3</td>
</tr>
<tr>
<td>ANSC340</td>
<td>Health Management of Animal Populations, OR</td>
<td>3-4</td>
</tr>
<tr>
<td>PLSC420</td>
<td>Principles of Plant Pathology</td>
<td></td>
</tr>
<tr>
<td>AREC250</td>
<td>Elements of Agricultural and Resource Economics</td>
<td>3</td>
</tr>
<tr>
<td>AREC</td>
<td>AREC**</td>
<td>3</td>
</tr>
<tr>
<td>BSCI1105</td>
<td>Principles of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BSCI1106</td>
<td>Principles of Biology II, OR</td>
<td></td>
</tr>
</tbody>
</table>
Students may select any course(s) having required hours in the area indicated.

Advising

The Department has mandatory faculty advising for each of its major and minor programs. Students are required to meet with their faculty advisor at least twice a year. See the Director, Dr. D.S. Glenn (301-405-1331), or the Program Management Specialist in Undergraduate Studies in 2102 Plant Sciences Building (301-405-4355) for additional information.

Internships

Internships with scientists are available at nearby federal and state agencies. Numerous internships also exist and can be readily arranged for students interested in private sector employment.

Student Societies and Professional Organizations

The department sponsors student teams that participate in regional and national contests. These teams prepare in the following areas: turf, weeds and crops, and landscape contracting.

AGST majors are encouraged to join the Agricultural Science Club. This club is open to all UMCP students who have an interest in agriculture and related areas. The AG Science Club is affiliated with the national student organization of the Agronomy, Crop Science and Soil Science Society of America. The function of the club is to bring together students of like interests to participate in College, academic and social activities.

Scholarships and Financial Assistance

Several scholarships and awards are available to AGST students. Contact the Associate Dean's office at 301-405-2078 for additional information. The Department also maintains a listing of scholarships. Contact Kathy Hunt in 2102 Plant Sciences, 301-405-4355.

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu

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Departments, Majors, and Programs

Agricultural & Resource Economics (AREC)

Faculty

The Major

Requirements for the Major

Requirements for the Minor

Advising

Awards and Recognition

Agricultural and Resource Economics (AREC)

College of Agriculture and Natural Resources
2200 Symons Hall, 301-405-1291
www.arec.umd.edu
bburdick@arec.umd.edu
Chair: K. McConnell
Director: H. Leathers (Assoc Prof)
Associate Professors: A. Alberini, J. Hanson, J. Horowitz, H. Leathers, D. Lipton, L. Lynch, D. Parker
Assistant Professors: B. Kirwan, A. Lange, K. Leonard, C. McAusland
Affiliate Professors: M. Cropper (Prof, Affiliate Prof)
Adjunct Professors: J. Chavas, J. List

The Major

Agricultural and Resource Economics majors complete a set of prerequisite courses, a core of classes offered by the Agricultural and Resource Economics Department, and one or more fields comprised of selected courses from outside the department. The core includes courses in economic reasoning, agribusiness management, environmental and resource policy, agricultural policy, economic development, and analytical methods. The program permits students flexibility in choosing fields to fit their career interests. Majors must complete one and are strongly encouraged to complete two fields. The curriculum balances breadth and depth, and lets students develop academic skills in two or more areas. The program provides a good foundation for careers in economics, resource or environmental policy, agribusiness, and international agriculture. Students are also able to minor in Agricultural and Resource Economics.

Double Majors

The department features a double major with Spanish for students interested in careers in multinational agribusiness firms or international agencies. It features a double major with Government and Politics for students interested in law school. Both can be completed within 120 credits. Other double majors are possible in consultation with an advisor.

Requirements for the Major

<table>
<thead>
<tr>
<th>Preconditions Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON200 Principles of Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON201 Principles of Macroeconomics</td>
<td>4</td>
</tr>
<tr>
<td>ECON306 Intermediate Microeconomic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECON321 Economic Statistics, OR</td>
<td>3</td>
</tr>
<tr>
<td>BMGT230 Business Statistics</td>
<td></td>
</tr>
<tr>
<td>MATH220 Elementary Calculus I, OR</td>
<td>3</td>
</tr>
<tr>
<td>MATH140 Calculus I</td>
<td></td>
</tr>
<tr>
<td>STAT100 Elementary Statistics and Probability, OR</td>
<td>3</td>
</tr>
<tr>
<td>MATH111 Introduction to Probability</td>
<td></td>
</tr>
</tbody>
</table>

Major Core Courses
Seven of these courses must be successfully completed.

AREC404  Applied Price Analysis  3  
AREC405  Economics of Production  3  
AREC425  Economics of the Food Sector  3  
AREC427  Economics of Commodity Marketing Systems  3  
AREC433  Food and Agricultural Policy  3  
AREC435  Commodity Futures and Options  3  
AREC445  Agricultural Development in the Third World  3  
AREC453  Economics of Natural Resource Use  3  
AREC455  Economics of Land Use  3  
AREC484  Introduction to Econometrics in Agriculture  3  
AREC306  Farm Management  3  
AREC382  Computer-Based Analysis in Agricultural and Resource Economics  3  
AREC400s  any other 3 credit 400 level AREC course may be substituted with permission of advisor  

Fields
All majors must complete one of the following fields. Two are strongly encouraged.

Business Management
BMGT220  Principles of Accounting I  3  
BMGT221  Principles of Accounting II  3  
BMGT340  Business Finance  3  
BMGT350  Marketing Principles  3  
BMGT364  Management and Organization  3  
BMGT380  Business Law I  3  
Other 300 level BMGT courses may be substituted, with permission of advisor. (The AREC department cannot authorize students to take BMGT courses that are restricted to business majors.)  

Total Credits  18  

Agricultural Science
Six (or more) courses in agricultural science, including:

ENBE110  Introduction to Biological Resources Engineering  1  
ENBE200  Fundamentals of Agricultural Mechanics  3  
PLSC100  Introduction to Horticulture, OR  4  
PLSC101  Introduction to Crop Science  
NRSC105  Soil and Environmental Quality  3  
ANSC101  Principles of Animal Science  3  
Other courses in agricultural science, chosen in consultation with an advisor. Substitutions to the above listed courses may be made with the permission of advisor.  4  

Total Credits  18  

Food Production
Six courses from the following list:

PHYS117  Introduction to Physics, OR  4  
PHYS121  Fundamentals of Physics  
BSCI105  Principles of Biology  4  

BSCI223  Introduction to Microbiology  4
NFSC100  Elements of Nutrition  3
NFSC112  Food Science and Technology  3
NFSC430  Food Microbiology  2
NFSC431  Food Quality Control  4

Other courses related to food science can be substituted with permission of advisor.

Total Credits  18

Environmental and Resource Policy
Six courses from the following list:
ECON381  Environmental Economics  3
ANTH450  Resource Management and Cultural Process  3
HIST405  Environmental History  3
GEOG372  Remote Sensing  3
GEOG373  Geographic Information Systems  3
GVPT273  Introduction to Environmental Politics  3
GVPT306  Global Ecopolitics  3

Other courses related to environmental policies or sciences can be substituted with permission of advisor.

Total Credits  18

International Agriculture
Six courses from the following list:
ECON305  Intermediate Macroeconomics  3
ECON315  Economic Development of Underdeveloped Areas  3
ECON340  International Economics  3
GEOG422  Population Geography  3
GVPT200  International Political Relations  3
GVPT350  International Relations in the Third World  3
NRSC440  Crops, Soils and Civilization  3
PLSC303  International Crop Production  3

Other courses related to international economics, business, politics, or agriculture can be substituted with permission of advisor.

Total Credits  18

Political Process
Any six courses in government and politics, chosen with permission of the advisor.

Total Credits  18

Advanced Degree Preparation
Six (or more) courses from the following list:
ECON407  Advanced Macroeconomics  3
ECON414  Game Theory  3
ECON415  Strategic Behavior and Incentives  3
ECON422  Quantitative Methods in Economics I  3
ECON423  Quantitative Methods in Economics II  3
ECON425  Mathematical Economics  3
MATH141  Calculus II  4
MATH240  Introduction to Linear Algebra  4
MATH241  Calculus III  4

Other courses in mathematics, statistics, or econometrics may be substituted with permission of advisor.
Student Designed Field

This field requires a written proposal listing at least six courses totaling at least 18 credits. The proposal must be submitted to the Undergraduate Committee of the AREC department. Committee approval must be obtained 30 or more credit hours before graduation. A student designed field may be used to study a foreign language as part of the AREC curriculum.

Requirements for the Minor

Three minors exist in AREC, Agribusiness Economics, Resource and Agricultural Policy in Economic Development, and Environmental Economics and Policy. Requirements are listed below:

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agribusiness Economics</td>
</tr>
<tr>
<td>AREC250 Elements of Agricultural and Resource Economics 3</td>
</tr>
<tr>
<td>AREC404 Applied Price Analysis 3</td>
</tr>
<tr>
<td>AREC405 Economics of Production 3</td>
</tr>
<tr>
<td>AREC425 Economics of Food Sector 3</td>
</tr>
<tr>
<td>AREC435 Commodity Futures and Options 3</td>
</tr>
</tbody>
</table>

Another AREC course can be substituted for one of the courses listed with permission of the Undergraduate Advisor.

Total Credits 18

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource and Agricultural Policy in Economic Development</td>
</tr>
<tr>
<td>AREC250 Elements of Agricultural and Resource Economics 3</td>
</tr>
<tr>
<td>AREC365 World Hunger, Population and Food Supplies 3</td>
</tr>
<tr>
<td>AREC433 Food and Agricultural Policy 3</td>
</tr>
<tr>
<td>AREC445 Agricultural Development, Population Growth, and the Environment 3</td>
</tr>
<tr>
<td>AREC453 Natural Resources and Public Policy 3</td>
</tr>
</tbody>
</table>

Another AREC course can be substituted for one of the course listed with permission of the Undergraduate Advisor.

Total Credits 15

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Economics and Policy</td>
</tr>
<tr>
<td>AREC240 Introduction to Economics and the Environment 3</td>
</tr>
<tr>
<td>AREC332 Introduction to Natural Resource Policy 3</td>
</tr>
<tr>
<td>AREC382 Computer-based Analysis in Agricultural and Resource Economics 3</td>
</tr>
<tr>
<td>AREC445 Agricultural Development, Population Growth, and the Environment 3</td>
</tr>
<tr>
<td>AREC455 Economics of Land Use 3</td>
</tr>
</tbody>
</table>

Another AREC course can be substituted for one of the course listed with permission of Undergraduate Advisor.

Total Credits 15

Advising
Because the program is flexible, advising is mandatory. Appointments may be made in Room 2200 Symons Hall, 301-405-1291.

**Awards and Recognition**

Scholarships honoring Arthur and Pauline Seidenspinner and Ray Murray are available. Contact a faculty advisor for more information, 301-405-1291.

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American Studies (AMST)

College of Arts and Humanities
1102 Holzapfel Hall, 301-405-1354
www.amst.umd.edu

Chair: N. Struna

Professors: J. Caughey, R. Kelly
Associate Professors: M. Lounsbury, J. Paoletti, S. Parks, L. Shinagawa, M. Sies
Assistant Professors: P. Williams-Forson
Lecturers: M. Brody, G. Metcalf

American Studies seeks especially to understand the beliefs and values in and through which Americans make sense of themselves and their worlds. The program combines exposure to methods of critical analysis currently practiced in American Studies, a concentration in a companion discipline or field, and opportunities to integrate knowledge and skills at the advanced level, through research, internships and creative projects. American Studies is a writing-intensive, research-oriented major. Every student is required to develop a research proposal and complete a senior project or honors thesis.

American studies prepares students for graduate and professional school and careers in mass media, business, social justice, teaching, public history and government. Courses offered by this department may be found under the acronym AMST.

Requirements for the Major

The American Studies major requires a minimum of 42 credits, including 24 in American Studies, 6 credits of lower level Americanist courses taken outside the department, and 12-24 credits in a focus area or minor taken outside the American Studies department. At least 27 of the credits for the major must be in 300 or 400 level courses, with at least twelve of these credits at the 400 level. A grade of C or better is required in each of the courses making up the major (includes those taken outside the department, such as the Americanist courses and those taken for the minor or focus area).

Foundation Courses (15 credits)
Course requirements in this area are intended to provide a foundation in American Studies and
the study of American culture and society in other disciplines. Courses taken for CORE may be
double-counted towards the major.

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
</table>
| AMST201         | Introduction of American Studies 3  
| AMST340         | Introduction to History, Theories and Methods in American Studies 3  
| **One 3-credit course from:** |  
| AMST203         | Popular Culture in America  
| AMST204         | Film and American Culture Studies  
| AMST205         | Material Aspects of American Life  
| AMST207         | Contemporary American Cultures  
| AMST212         | Diversity in American Culture  
| AMST260         | American Culture in the Information Age  
| FOUNDATION      | Foundation courses outside the AMST department 6  

*Any two lower-level courses selected from an approved list. List is available through the department.*

**Advanced Requirements (15 credits)**

Course requirements in this area are intended to offer students the opportunity to explore
selected topics in American Studies in greater depth and to apply what they have learned in
their foundation courses. All of these courses must be at the 300 or 400 level. American
Studies advanced requirements may be satisfied in one of two ways:

Option A:

- Four 400-level AMST courses, not including AMST 450 (12 credits)
- AMST 450 Seminar in AMST or AMST 388 Honor Thesis (3 credits)

Option B:

- Three 400-level AMST courses not including AMST 450 (9 credits)
- AMST 386-Internship, 398-Independent Study or 388-Honors Thesis Research (3 credits)
- AMST 450 Seminar in AMST or AMST 388 Honors Thesis Research (3 credits)

**Focus Area Requirements (12-24 Credits)**

The focus area requirements reinforce the essential interdisciplinary nature of our field, offering
students a range of options to connect their American Studies coursework with a related
discipline or field. All focus area courses must be taken outside the American Studies Department.

**Minor or Certificate option (15-24 credits, at least 9 at the 300 or 400 level)**

Successful completion of a minor or certificate from an approved list (available through the
department). University approved minors range from 15 to 24 credits; certificate programs
require 21-24 credits. The department or program administering the minor determines specific
requirements, and in some cases, student eligibility.

**Focus Area Option (12 credits, all at the 300 or 400 level)**

Successful completion (C or better) of four upper level courses outside the department that enable
the student to construct a coherent focus area complementary to American Studies. A focus area may be in a single department or selected from two or more departments (examples available through the department). Students should not pursue a focus in a department or program that offers a suitable minor or certificate. An American Studies advisor must approve course selection within the focus area in advance, as part of mandatory advising each semester.
Advising

Departmental advising is mandatory every semester for all majors.

Internships

American Studies majors are encouraged to earn academic credit for career-related work experience under AMST 386. Students are responsible for finding and arranging their own placements, with guidance from departmental advisors and the Career Center. American Studies internships have included work with political advocacy groups, museums, broadcast and print media, sports marketing, fashion industry and non-profit organizations. For more information, contact Jo Paoletti, Undergraduate Studies Director, jpaol@umd.edu.

Honors Program

The American Studies Honors Program offers outstanding students an opportunity to add distinction to their academic records by undertaking an independent research project in an area of particular interest.

The program is intended to allow students preparing for graduate study or a professional career to apply and further develop their research, analytic, and writing skills in an independent project of their own design, in consultation with a faculty mentor. Students are encouraged to make use of the rich resources of the Washington-Baltimore area, including major research institutions such as the Smithsonian Institutions, the Library of Congress, and the National Archives.

Students fulfill the honors program requirements through a combination of honors-designated coursework (6 credit hours) and an honors thesis (6 credit hours). These courses and credits fall within both the American Studies major requirements and the University’s 120-credit undergraduate degree requirement. Students who undertake American Studies Honors are excused from the senior seminar, AMST 450.

Eligibility: Students must have at least a 3.0 GPA at the time of entry into the program, and must maintain a 3.0 GPA to remain in good standing. To graduate with Honors in American Studies, students must have a 3.0 cumulative GPA and at least a 3.2 GPA in their major coursework.

Application: Students who wish to pursue Honors work should submit a letter of intent to the Director of Undergraduate Studies. The letter should identify the core faculty member who has agreed to approve course work and supervise the research and writing of the honors thesis.

Requirements: The Honors Program gives students a substantial amount of flexibility in fulfilling the two basic requirements: 6 credit hours of honors-designated coursework; and 6 credit hours of AMST 388, Honors Thesis and Research.

To fulfill the coursework requirements (6 credit hours), students may:

- Take an upper level Honors section course in a department or departments consonant with the student’s major focus areas.
- Take an upper level University Honors course.
- Negotiate an Honors Option Contract with the instructor of an upper division course in American Studies or in a department or departments consonant with the student’s major focus areas.
- Take a graduate course in a department or departments consonant with the student's major focus areas.

All coursework not taken in an Honors section, in a university Honors course, or in a graduate
course should have an Honors Option Contract completed, in order to ensure that the student's transcript reflects that the work carries Honors credit.

To fulfill the thesis requirements, students will:

- Register for 6 credit hours of AMST 388, Honors Thesis and Research. Customarily this is spread across the student's senior year, with 3 credit hours taken each term.

- Present the thesis to a committee composed of the faculty mentor and another department faculty member. At the satisfactory conclusion of the thesis presentation, the committee will notify the Director of Undergraduate Studies that the thesis has been read, evaluated and approved. The Director of Undergraduate Studies will then notify the University Honors Program Director of the successful completion of the individual Honors degree program.

**Scholarships and Financial Assistance**

The David Ellis Memorial Scholarship is awarded annually to an American Studies major with at least a 3.25 GPA, 9 earned credits in AMST classes and a demonstrated interest in American ethnic diversity and culture.

*Return to top*
ANIMAL SCIENCES (ANSC)

College of Agriculture and Natural Resources
1415A Animal Sciences Center, 301-405-1373
www.ansc.umd.edu
markv@umd.edu
Chair: R. Erdman
Assistant Professors: B. Bequette, A. Burk, I. Hamza, F. Siewerdt, J. Song
Affiliate Associate Professors: S. Schoenian

The Major

The Department of Animal and Avian Sciences provides a challenging program for academically talented students interested in the application of biology and technology to the care, management and study of domestic and aquatic animals. In addition to emphasizing the traditional farm species of dairy and beef cattle, sheep, swine and poultry, our program includes options in equine studies, laboratory animal management, and sciences which prepare students for veterinary or graduate school. Animal sciences majors explore a wide range of subjects -- from fundamental biology to animal nutrition, physiology and genetics -- while integrating science and economics into animal management.

Our department offers B.S., M.S. and Ph.D. degrees. One-third of our animal sciences seniors enter veterinary school, while others go on to graduate school. Our graduates also pursue a variety of careers such as research technicians, sales or marketing representatives, or animal producers.

Academic Programs and Departmental Facilities

Our up-to-date facilities in the Animal Sciences Center, which opened in 1991, include new classrooms, an inviting lecture hall and a large social area for students. The newly constructed teaching labs, animal rooms and a surgery suite are located adjacent to the teaching farm where horses, sheep, beef and dairy cattle are maintained.

Requirements for the Major

Animal Sciences prepares students for veterinary school, graduate school and careers in research, sales and marketing, biotechnology, aquaculture, and animal production. The curricula apply the principles of biology and technology to the care, management, and study of dairy and beef cattle, horses, fish, sheep, swine, and poultry. Students complete the Animal Sciences core courses and choose a specialization area: Animal Biotechnology, Animal Care and Management, Equine Studies, Laboratory Animal Management, and Sciences/Professional Option to prepare for admission to graduate, veterinary, pharmacy, nursing or medical school.

ANIMAL SCIENCES CORE

All undergraduates majoring in Animal Sciences must complete the following course requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC101</td>
<td>3</td>
</tr>
<tr>
<td>ANSC211</td>
<td>3</td>
</tr>
<tr>
<td>ANSC212</td>
<td>3</td>
</tr>
</tbody>
</table>
ANSC214 Animal Physiology Laboratory 1
ANSC314 Comparative Animal Nutrition 3
ANSC327 Molecular and Quantitative Animal Genetics 3
BSCI105 Principles of Biology I 4
BSCI223 General Microbiology 4
CHEM131/132 General Chemistry I/Laboratory 4

One from:
MATH220 Elementary Calculus I 3
MATH140 Calculus I 4

One from:
AREC250 Elements of Agricultural and Resource Economics 3
ECON200 Principles of Micro-Economics 4

ADDITIONAL COURSE WORK
All students must complete 30-40 credits in one of the following six options.

1. ANIMAL CARE AND MANAGEMENT (0104A) Required Courses
ANSC315 Applied Animal Nutrition 3
ANSC446 Physiology of Mammalian Reproduction 3
ANSC447 Physiology of Mammalian Reproduction Laboratory 1
AREC306 Farm Management 3
BSCI106 Principles of Biology II 4
CHEM104 Fundamentals of Organic and Biochemistry 4

Plus take 6 credits from the following courses:
ANSC420 Critical Thinking in Animal Sciences 3
ANSC435 Experimental Embryology 3
ANSC437 Animal Biotechnology 3
ANSC443 Physiology and Biochemistry of Lactation 3
ANSC444 Domestic Animal Endocrinology 3
ANSC452 Avian Physiology 3
ANSC453 Animal Welfare 3
ANSC455 Applied Animal Behavior 3
ANSC497 Animal Biotechnology Recombinant DNA Laboratory 3

Plus take 9 credits from the following courses:
ANSC340 Health Management of Animal Populations 3
ANSC220 Livestock Management 3
ANSC232 Horse Management 3
ANSC240 Dairy Cattle Management 2
ANSC255 Introduction to Aquaculture 3
ANSC262 Commercial Poultry Management 3
ANSC305 Companion Animal Care 3
ANSC413 Laboratory Animal Management 3

2. EQUINE STUDIES (0104C) Required Courses
ANSC220 Livestock Management 3
ANSC232 Horse Management 3
ANSC330 Equine Science 3
ANSC315 Applied Animal Nutrition 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC446</td>
<td>Physiology of Mammalian Reproduction</td>
<td>3</td>
</tr>
<tr>
<td>ANSC447</td>
<td>Physiology of Mammalian Reproduction</td>
<td>1</td>
</tr>
<tr>
<td>AREC306</td>
<td>Farm Management</td>
<td>3</td>
</tr>
</tbody>
</table>
### BSCI106 Principles of Biology II 4
### CHEM104 Fundamentals of Organic and Biochemistry 4

*Plus take 9 credits from the following courses:*

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC340</td>
<td>Health Management of Animal Populations</td>
<td>3</td>
</tr>
<tr>
<td>ANSC420</td>
<td>Critical Thinking in Animal Sciences</td>
<td>3</td>
</tr>
<tr>
<td>ANSC435</td>
<td>Experimental Embryology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC437</td>
<td>Animal Biotechnology</td>
<td>2</td>
</tr>
<tr>
<td>ANSC443</td>
<td>Physiology and Biochemistry of Lactation</td>
<td>3</td>
</tr>
<tr>
<td>ANSC444</td>
<td>Domestic Animal Endocrinology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC452</td>
<td>Avian Physiology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC453</td>
<td>Animal Welfare</td>
<td>3</td>
</tr>
<tr>
<td>ANSC455</td>
<td>Applied Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ANSC497</td>
<td>Animal Biotechnology Recombinant DNA Laboratory</td>
<td>3</td>
</tr>
</tbody>
</table>

### 3. LABORATORY ANIMAL MANAGEMENT (0104D)

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC340</td>
<td>Health Management of Animal Populations</td>
<td>3</td>
</tr>
<tr>
<td>ANSC413</td>
<td>Lab Animal Management</td>
<td>3</td>
</tr>
<tr>
<td>ANSC437</td>
<td>Animal Biotechnology</td>
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<tr>
<td>ANSC446</td>
<td>Physiology of Mammalian Reproduction</td>
<td>3</td>
</tr>
<tr>
<td>ANSC447</td>
<td>Physiology of Mammalian Reproduction Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANSC453</td>
<td>Animal Welfare</td>
<td>3</td>
</tr>
<tr>
<td>ANSC455</td>
<td>Applied Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BSCI106</td>
<td>Principles of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM104</td>
<td>Fundamentals of Organic and Biochemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

*Plus take 6 credits from the following courses:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC420</td>
<td>Critical Thinking in Animal Sciences</td>
<td>3</td>
</tr>
<tr>
<td>ANSC435</td>
<td>Experimental Embryology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC443</td>
<td>Physiology and Biochemistry of Lactation</td>
<td>3</td>
</tr>
<tr>
<td>ANSC444</td>
<td>Domestic Animal Endocrinology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC452</td>
<td>Avian Physiology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC497</td>
<td>Animal Biotechnology Recombinant DNA Laboratory</td>
<td>3</td>
</tr>
</tbody>
</table>

*Plus take 3 credits from the following courses:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC220</td>
<td>Livestock Management</td>
<td>3</td>
</tr>
<tr>
<td>ANSC255</td>
<td>Introduction to Aquaculture</td>
<td>3</td>
</tr>
<tr>
<td>ANSC262</td>
<td>Commercial Poultry Management</td>
<td>3</td>
</tr>
</tbody>
</table>

### 4. & 5. SCIENCES & COMBINED AG AND VET SCI (0104E and 1299D) Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC315</td>
<td>Applied Animal Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>BSCI106</td>
<td>Principles of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BCHM463</td>
<td>Biochemistry of Physiology or</td>
<td>3</td>
</tr>
<tr>
<td>BSCI230</td>
<td>Cell Biology and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>CHEM231/232</td>
<td>Organic Chemistry I/Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>CHEM241/242</td>
<td>Organic Chemistry II/Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>CHEM271</td>
<td>General Chemistry and Energetics</td>
<td>2</td>
</tr>
<tr>
<td>PHYS121</td>
<td>Fundamentals of Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS122</td>
<td>Fundamentals of Physics II</td>
<td>4</td>
</tr>
</tbody>
</table>
**Plus take 9 credits from the following courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANSC340</td>
<td>Health Management of Animal Populations</td>
<td>3</td>
</tr>
<tr>
<td>ANSC420</td>
<td>Critical Thinking in Animal Sciences</td>
<td>3</td>
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<td>ANSC435</td>
<td>Experimental Embryology</td>
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<td>ANSC437</td>
<td>Animal Biotechnology</td>
<td>2</td>
</tr>
<tr>
<td>ANSC443</td>
<td>Physiology and Biochemistry of Lactation</td>
<td>3</td>
</tr>
<tr>
<td>ANSC444</td>
<td>Domestic Animal Endocrinology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC446</td>
<td>Physiology of Mammalian Reproduction</td>
<td>3</td>
</tr>
<tr>
<td>ANSC447</td>
<td>Physiology of Mammalian Reproduction Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANSC452</td>
<td>Avian Physiology</td>
<td>3</td>
</tr>
<tr>
<td>ANSC453</td>
<td>Animal Welfare</td>
<td>3</td>
</tr>
<tr>
<td>ANSC455</td>
<td>Applied Animal Behavior</td>
<td>3</td>
</tr>
<tr>
<td>ANSC497</td>
<td>Animal Biotechnology Recombinant DNA Laboratory</td>
<td>3</td>
</tr>
</tbody>
</table>
Other Requirements for the Major

Animal sciences majors select one of six options as an area of specialization:

**Science/Professional** - Prepares students for admission to veterinary or medical schools and/or graduate school. Graduate school study can open the door to an exciting research career in specialty areas of animal or biological sciences such as genetics, nutrition, physiology or cell biology. The curriculum emphasizes advanced courses in the biological and physical sciences and includes all the pre-veterinary and pre-medicine requirements.

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**Plus take 3 credits from the following courses:**

- ANSC220 Livestock Management 3
- ANSC232 Horse Management 3
- ANSC240 Dairy Cattle Management 2
- ANSC255 Introduction to Aquaculture 3
- ANSC262 Commercial Poultry Management 3
- ANSC413 Laboratory Animal Management 3

*For additional information concerning veterinary school applications, please contact the K. Feldman, VMRCVM, 8705 Greenmead Dr., University of Maryland, College Park, MD 20742-3711, 301-314-6820, kfeldman@umd.edu.*

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**Plus take 9 credits from the following courses:**

- ANSC340 Health Management of Animal Populations 3
- ANSC420 Critical Thinking in Animal Sciences 3
- ANSC443 Physiology and Biochemistry of Lactation 3
- ANSC446 Physiology of Mammalian Reproduction 3
- ANSC447 Laboratory 1
- ANSC452 Avian Physiology 3
- ANSC453 Animal Welfare 3
- ANSC455 Applied Animal Behavior 3

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**Plus take 3 credits from the following courses:**

- ANSC435 Experimental Embryology 3
- BSCI1380 Comparative Bioinformatics 4
- BSCI413 Recombinant DNA 4
**Combined Ag & Vet Sci** - A combined degree program is available to students who gain admission to veterinary school prior to completing their bachelor's degree. College of Agriculture and Natural Resources students who have completed at least ninety hours, including all college and university requirements, are awarded a bachelor of science degree upon successful completion of at least thirty semester hours in an accredited college of veterinary medicine. Early planning with your advisor is encouraged if you choose this option.

**Equine Studies** - Offers hands-on learning opportunities in the area of equine science and management. The Department of Animal and Avian Sciences at the University of Maryland offers undergraduate students the opportunity to emphasize on horses while pursuing a Bachelor of Science degree in Animal Science. Students may take equine courses that explore a wide range of topics including anatomy and physiology, nutrition, reproduction, exercise, law, insurance, facilities, health and disease, pasture management, and more. Our courses are designed to provide valuable hands-on learning experiences to better prepare students to be future leaders in the horse industry as well as other industries. In addition, ANSC students may take one or more equine courses within the Institute of Applied Agriculture.

**Animal Biotechnology** - The Animal Biotechnology option is a relatively new addition to our program. It combines the basic required animal science courses with a focus on biology and technology. This option has a heavy emphasis on science courses, to prepare students for a professional career. Some of the career options with this track include: an industry career in animal biotechnology; a graduate degree in biotechnology (either MS and/or PHD); or a professional degree and career (Veterinary or Human Medicine, Nursing, Pharmacy.)

**Animal Care & Management** - Is designed for students whose career plans include animal management, production and the marketing of animal products. The curriculum provides basic courses in genetics, nutrition, physiology and reproduction while allowing students to focus on the management of one particular livestock species. You will be encouraged to supplement academic work with practical experience by completing an internship. Dairy science students, for example, intern at local farms where they participate in decisions about breeding, feeding, health practices, milk production and other aspects of herd management. This option will prepare you for ownership or management positions with dairy, livestock or poultry production enterprises; positions with marketing and processing organizations; breed associations; and positions in agribusiness fields such as sales of feed, pharmaceutical products and agricultural equipment. Graduates also work with state and federal agencies.

**Laboratory Animal Management** - Prepares students for careers in the operation and management of laboratory animal facilities connected with the biotechnology industry. Course work in nutrition, reproduction and environmental management is combined with practical learning to provide future managers with tools they will need. As a graduate, you may pursue careers with state or federal agencies; with private industry in the management and operation of laboratory animal production; and with instructional or investigational facilities.

**Advising**

Animal sciences majors are assigned a faculty advisor to assist with program and course selection, as well as to help students take advantage of the many non-classroom opportunities in the Washington, D.C. area. Faculty members have specialties in all areas of animal sciences, as well as veterinary medicine, and bring practical applications to the classroom, creating a rich learning experience for students.

Face to face advising is mandatory. Each student will be assigned to a faculty advisor to assist in planning his or her academic program. For information or appointment: 1415A Animal Sciences Center, 301-405-1373.

**Undergraduate Research Experiences**

Because it is part of a land grant university, the Department of Animal and Avian Sciences also has responsibility for research and technology transfer to the animal industry throughout Maryland. During undergraduate study, students are encouraged to conduct independent research in faculty laboratories on campus or at the nearby U. S. Department of Agriculture Beltsville Agricultural Research Center.
Internships

Students are encouraged to gain practical animal management experience by pursuing internships. Students have completed internships in locations ranging from the area around the University, to cattle farms in the Midwest, agribusiness firms in California, and a zoo in Frankfurt, Germany. Many animal sciences students use the summer to gain additional applied experience in animal sciences, veterinary medicine or agribusiness.

Honors Program

Students admitted to the AGNR Honors Program are eligible to take 3 - 6 credits of Honors Thesis Research within the ANSC Department (ANSC388). Undergraduate honors thesis research is conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended before a faculty committee.

Student Societies and Professional Organizations

The clubs and organizations affiliated with the Animal Science department allow ample opportunities for leadership, development, hands-on animal experience, and fun!

**Alpha Gamma Rho**
Alpha Gamma Rho is a social/professional fraternity that has been a training ground for leaders in the agriculture and life sciences community since it was established at College Park in 1928. AGR has a rich tradition of alumni contacts with over 50,000 brothers nationwide, including over 700 brothers in the Washington area alone. AGR men are leaders in various clubs within the college and the fraternity is an active member of both the Inter-fraternity Council (IFC) and the Ag Student Council. Alpha Gamma Rho stresses scholarship, leadership and fellowship, and it is well respected among Greek organizations because of their no pledging, substance free, scholars environment. In addition, the chapter house on Princeton Avenue offers the opportunity to live with brothers who are taking the same classes and share many of the same interests which makes it much easier to find a niche on such a large campus.

**Alpha Zeta**
Alpha Zeta is an agricultural professional honor society whose membership is selected from undergraduate and graduate students excelling in scholarship, leadership, character, and service. Organizational events include coordinating the Partners in Education program with the USDA Agriculture Research Service, Beltsville Area, fund raising activities, community service projects, awards and recognition programs, and an annual student/faculty/alumni banquet. A popular annual event is coordinating a Field Day for young children at the nearby National Agricultural Research Visitor Center at Beltsville.

**Animal Husbandry Club**
The Animal Husbandry Club at the University of Maryland, College Park, provides opportunities for students to gain animal handling experience and build interpersonal relationship skills, while given the encouragement to excel! Activities and experiences specifically designed for students of diversified interests in animal agriculture are provided, including experiences with many different domestic species. Membership is open to all undergraduate students interested in getting hands-on experience working with dairy, beef, sheep or swine, and learning more about general animal sciences. Activities include the Ag Day Dairy and Livestock Shows, Harvest Stomp/Fall Festival, fitting of animals for the annual Wye Angus Sale, and other activities working with dairy animals. One can gain further leadership skills by holding an office. Each Spring, elections are held for President, Vice-President, Secretary, Treasurer, and Historian.

**Collegiate 4-H**
Many colleges and universities have Collegiate 4-H clubs. Collegiate 4-H is an organization that provides its members with a sense of identity on campus, enriches their lives through group projects and recreation, and develops confidence and leadership skills. Clubs provide service and support to their local and state 4-H programs, such as serving as judges and conducting training workshops. They are also a service and social group for campus students. Collegiate 4-H is open to all college students who wish to support youth and the 4-H program. It is not necessary to have prior 4-H experience, only to have an interest in the 4-H ideals and in serving your community. [www.collegiate4h.org](http://www.collegiate4h.org/)

**Sigma Alpha**
Sigma Alpha is a national professional agricultural sorority. The objective of the sorority is to
promote its members in all facets of agriculture and to strengthen the friendships among them. Members strive for achievement in scholarship, leadership, service, and to further the development of women pursuing careers in agriculture. Sigma Alpha works to promote agriculture, and women's role, on our campus, in our community and throughout the state.

Activities include: attending regional and national conferences/ conventions; participating in college events (Fall Bash, ANSC orientation, Cook-Offs); service activities including teaching agriculture to local elementary students and judging contests for the Maryland FFA; professional Guest speakers, and participating in Maryland Day/Ag Day. Membership rush is held on a semester basis. To be eligible, potential members must have: 2.25 Cumulative GPA, Agriculture major or sincere interest in agriculture, be a member of one other group, enrolled in 18 credits, or working 10 hours a week. Visit the web site: www.studentorg.umd.edu/sigma

University of Maryland Equestrian Club
The University of Maryland Equestrian Club (UMEC) provides on-campus horseback riding lessons and equine learning opportunities for campus students and faculty at beginner through advanced levels. The ANSC department provides the barn, equipment, riding arenas and horses while the students provide care for the horses. There is a riding fee of $200 per semester for one riding lesson a week for the entire semester. Large deductions are easily earned for help with feeding, cleaning stalls or teaching. Club members not riding are strongly encouraged to participate in other club activities, such as educational and fun seminars, field trips and monthly meetings. In the past, UMEC members have attended the Columbia Grand Prix and the Washington International Horse Show and taken field trips to the DuPont Veterinary Medical Center in Leesburg, Va. and Days End Horse Rescue Farm in Maryland. Members have also participated in clinics on tack fitting and identifying lameness in horses. Club members, under the leadership of the Executive Board and Directors, make most UMEC club decisions. We offer a great opportunity to all students and we’re always open to suggestions. We also try to have something for everyone including basic English equitation, Western equitation, dressage, bareback and trail riding, horse and farm management, veterinary care, teaching skills and much more. The UMEC is located at the campus horse barn, and our office is in the Shack, right next to the paddocks. There is very limited space in the riding lessons, so e-mail us right away to reserve yourself a spot in the most educational equine club provided by the University of Maryland. Visit the web site: www.studentorg.umd.edu/umec/

University of Maryland Equestrian Team
The Equestrian Team is a competitive club, meaning they travel to different schools in the zone and compete in IHSA shows. Students, faculty, staff, and alumni association members of all levels are invited. The team offers English, Western, and jumping, so team members can pick what type of riding to specialize in or compete in all three! The team does not hold tryouts so anyone can join the team. UMET is located about 25 minutes off campus at Clay Hill Stables in Springdale, Maryland. The cost per semester for team membership is $550. This fee covers two one hour group lessons a week taught by trainer Trisha Prettyman, unlimited practice rides (hacks), show fees, show practices, and a ton of fun!

Veterinary Science Club
The primary objectives of the Veterinary Science Club are to: promote a deeper understanding of the numerous opportunities in veterinary medicine, exchange information on veterinary and animal experiences, and keep students updated on the latest veterinary school information.

What does the Veterinary Science Club do? A variety of guest speakers are invited to club meetings to talk about their specialties or field of interest. A sample of topic include wildlife rehabilitation, laboratory animal medicine, exotic pet care and veterinary ethics.

Each year, faculty from the Virginia-Maryland Regional College of Veterinary Medicine speak to club members about veterinary medical school. Mock interviews are held in January to prepare our club members for the admissions process.

Club sponsored trips offer our members the opportunity to tour various veterinary medical facilities, talk to veterinary students and faculty, and to visit local zoos and animal care facilities.

Annually, the club participates in the APVMA National Symposium which is held at different veterinary schools each year. This is an excellent opportunity to visit a vet school, plus hear over 30 speakers on numerous topics and participate in a variety of wet and dry lab.

There are also opportunities to volunteer with the Prince George's County Animal Shelter in partnership with PetSmart, to help find homes for abandoned animals. For more information visit the web site: www.careercenter.umd.edu/VetSciClub
Scholarships and Financial Assistance

American Society of Animal Sciences Scholastic Recognition and Department of Animal Sciences Scholastic Achievement Awards are presented each year at the College of Agriculture and Natural Resources Student Awards Convocation. The ANSC program administers several scholarships, including: C.W. England, Dairy Technology Society, the Kinghorne Fund Fellowship, the C.S. Shaffner Award, the Lillian Hildebrantd Rummel Scholarship, and the Owen P. Thomas Development Scholarship. For eligibility criteria, visit the ANSC Office, 1415A Animal Sciences Center.

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

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Anthropology (ANTH)

College of Behavioral and Social Sciences
1111 Woods Hall, 301-405-1423
www.bsos.umd.edu/anth

Faculty
Chair: E. Chambers
Professors: J. Chernela (also LASC), F. Jackson, M. Leone, P. Shackel, T. Whitehead, A. Williams
Associate Professors: J. Freidenberg, M. Paolisso
Assistant Professors: S. Brighton, W. Stuart
Affiliate Professors: A. Bolles (WMST), S. Bushrui (Affiliate Prof, Res Prof), J. Caughey (AMST), R. Harrison (CMLT, LASC), S. Kim (WMST), D. Linebaugh (HISP), A. Nieves (HISP), C. Robertson (MUSC)
Adjunct Professors: S. Abbott-Jamieson (NOAA), S. Fiske, A. Froment, L. Kaljee, B. Little (National Park Service), F. McManamon (National Park Service), S. Potter (National Park Service), N. Tashima (LTG Associates)
Professors Emeriti: M. Agar, N. Gonzalez (Emerita)

The Major

Anthropology, the study of culture, seeks to understand humans as a whole - as social beings who are capable of symbolic communication through which they produce a rich cultural record. Anthropologists try to explain differences among cultures - differences in physical characteristics as well as in customary behavior. Anthropologists study how culture has changed through time as the human genus has spread over the earth. Anthropology is the science of the biological evolution of human species, and the disciplined scholarship of the cultural development of human beings' knowledge and customary behavior.

Anthropology at the University of Maryland offers rigorous training for many career options. A strong background in anthropology is a definite asset in preparing for a variety of academic and professional fields, ranging from the law and business, to comparative literature, philosophy and the fine arts. Whether one goes on to a Master's or a Ph.D., the anthropology B.A. prepares one for a wide range of non-academic employment, such as city and public health planning, development consulting, program evaluation, and public archaeology.

Program Learning Outcomes

Having completed the degree program, students should have acquired the following knowledge and skills:

1. Students shall have an integrated knowledge, awareness and understanding of a culturally and biologically diverse world.
2. Students shall demonstrate an understanding of culture and society.
3. Students shall demonstrate the ability to understand complex research problems, and articulate appropriate methods and theory.

Academic Programs and Departmental Facilities

The Anthropology department offers beginning and advanced course work in the three principal subdivisions of the discipline: cultural anthropology, archaeology, and biological anthropology. Within each area, the department offers some degree of specialization and provides a variety of opportunities for research and independent study. Laboratory courses are offered in biological anthropology and archaeology. Field schools are offered in archaeology. The interrelationship of
all branches of anthropology is emphasized.

The undergraduate curriculum is tied to the department's Master in Applied Anthropology (M.A.A.) program; accordingly, preparation for non-academic employment upon graduation is a primary educational goal of the department's undergraduate course work and internship and research components.

The Anthropology department has a total of four laboratories, located in Woods Hall, which are divided into teaching labs and research labs. The department's two archaeology labs, containing materials collected from field schools of the past several years, serve both teaching and research purposes. The other two laboratories are a teaching laboratory in biological anthropology and the Laboratory for Applied Ethnography and Community Action Research.

Cultural Systems Analysis Group (CuSAG), a research and program development arm of the department, is located in Woods Hall.

Center for Heritage Research Studies, located in the Department of Anthropology, focuses on research devoted to understanding the cultural characteristics of heritage and its uses.

**Requirements for the Major**

Majors are required to take five courses in the core course sequence (three introductory courses and two advanced method and theory courses), for a total of 16-17 credit hours. They must also take 15 credit hours in anthropology electives and 18 supporting credit hours in courses that are primarily outside the major. Anthropology majors must also acquire a second language or complete a quantitative methods course.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introductory courses</strong></td>
<td></td>
</tr>
<tr>
<td>ANTH220 Introduction to Biological Anthropology</td>
<td>4</td>
</tr>
<tr>
<td>ANTH240 Introduction to Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH260 Introduction to Sociocultural Anthropology and Linguistics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Advanced Method and Theory courses:</strong></td>
<td></td>
</tr>
<tr>
<td>At least two of the following (one must be in major's area of</td>
<td></td>
</tr>
<tr>
<td>primary focus—i.e., cultural anthropology, archaeology,</td>
<td></td>
</tr>
<tr>
<td>biological anthropology)</td>
<td></td>
</tr>
<tr>
<td>ANTH320 Method and Theory in Biological Anthropology, AND/OR</td>
<td>3</td>
</tr>
<tr>
<td>ANTH340 Method and Theory in Archaeology, AND/OR</td>
<td>3</td>
</tr>
<tr>
<td>ANTH360 Method and Theory in Sociocultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td><strong>Anthropology Electives:</strong></td>
<td></td>
</tr>
<tr>
<td>Fifteen hours of anthropology electives, 9 at the 300 level or</td>
<td></td>
</tr>
<tr>
<td>above</td>
<td></td>
</tr>
<tr>
<td>ANTH Anthropology electives</td>
<td>6</td>
</tr>
<tr>
<td>ANTH300/400 Upper level Anthropology courses</td>
<td>9</td>
</tr>
<tr>
<td><strong>Supporting Electives:</strong></td>
<td></td>
</tr>
<tr>
<td>Eighteen credit hours of supporting electives; at least 10</td>
<td></td>
</tr>
<tr>
<td>credit hours must be outside of the department (with your</td>
<td></td>
</tr>
<tr>
<td>academic advisor's approval), 8 hours may be anthropology</td>
<td></td>
</tr>
<tr>
<td>course work.</td>
<td></td>
</tr>
<tr>
<td><strong>Quantitative Methods or Foreign Language Requirement:</strong></td>
<td></td>
</tr>
<tr>
<td>One from:</td>
<td></td>
</tr>
<tr>
<td>One quantitative methods course from approved list OR</td>
<td>18</td>
</tr>
</tbody>
</table>
For a list of recommended quantitative classes, see the Office for Director of Undergraduate Studies

**Advising**

Undergraduate advising is coordinated by the Office of the Director of Undergraduate Studies who serves as the administrative advisor for all undergraduate majors and minors. All majors are required to meet with the Office of the Director of Undergraduate Studies at least once per term, at the time of early registration. In addition, the Anthropology department encourages students to select an academic advisor who will work closely with the student to tailor the program to fit the student's particular interests and needs. All Anthropology faculty members serve as academic advisors (and should be contacted individually). Each major is expected to select an academic advisor from the faculty in the field of his/her concentration (Biological Anthropology, Socio-Cultural Anthropology, or Archaeology), and to consult with him/her on a regular basis. The student's choice of a quantitative methods course must be approved by the student's advisor. For additional information, students should contact the Director of Undergraduate Studies, Dr. Paul Shackel, 1119 Woods Hall, 301-405-1422; E-mail: pshackel@anth.umd.edu. or Advisor Consultant, Keisha Robinson, 1117 Woods Hall, 301-405-1436; E-mail: krobinson@anth.umd.edu.

**Undergraduate Research Experiences**

There are several undergraduate research experiences available for students:

1. Archaeology laboratories
2. Biological anthropology lab
3. Chesapeake heritage program
4. Immigrant Life Course
5. Cultural Systems Analysis Group

For more information, please contact the Director of Undergraduate Studies or the Undergraduate Advisor.

**Fieldwork Opportunities**

The Department of Anthropology encourage students to explore its field school and study abroad opportunities:

1. Summer archaeology field school(s)
2. Summer archaeology field studies in Belgium and northern France (study abroad program)
3. Summer ethnographic field school in Jamaica (study abroad program)
4. Summer ethnographic field school in the Brazilian Amazon (study abroad program)
5. Winter term ethnographic field school in Argentina (study abroad program)
6. Winter term field study in Italy (study abroad program)

For more information, please contact the Director of Undergraduate Studies or the Undergraduate Advisor.

**Internships**
Students are encouraged to do an internship. There are many non-profit and government agencies in the Baltimore-Washington area that are willing to support Anthropology interns. For more information, please contact the Director of Undergraduate Studies or the Undergraduate Advisor.

**Co-op Programs**

The Department has a cooperative agreement with the National Park Service. When available, students have opportunities to work on various archeology and museum projects in the National Capital Region. For more information, please contact the Director of Undergraduate Studies or the Undergraduate Advisor.

**Honors Program**

The Anthropology department also offers an Honors Program that provides the student an opportunity to pursue in-depth study of his or her interests. Acceptance is contingent upon a 3.5 GPA in anthropology courses and a 3.0 overall average. Members of this program are encouraged to take as many departmental honors courses (either as HONR or as "H" sections of ANTH courses) as possible. The Honors Citation is awarded upon completion and review of a thesis (usually based upon at least one term of research under the direction of an Anthropology faculty member) to be done within the field of anthropology. For additional information, students should contact the Director of Departmental Honors Program, Dr. William Stuart, Woods Hall, 301-405-1435; E-mail: wstuart@anth.umd.edu

**Student Societies and Professional Organizations**

Anthropology Student Association (ASA): An anthropology student association that meets regularly to plan student events and to help coordinate various student and faculty activities. Meeting times are posted outside 0100 Woods Hall.

The department and the ASA jointly sponsor a public lecture series.

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Applied Mathematics and Scientific Computation Program (AMSC)

College of Computer, Mathematical and Physical Sciences
3103 Mathematics Building, 301-405-0924
www.amsc.umd.edu
amsc@amsc.umd.edu
Director: James A. Yorke, Distinguished University Professor
Professors: More than 100 members from 19 units.

Academic Programs and Departmental Facilities

The Applied Mathematics and Scientific Computation Program offers a graduate program in which students combine studies in mathematics and application areas. The Program also offers an undergraduate Certificate in Computational Science. AMSC courses carry credit in mathematics, with the exception of AMSC 462. An undergraduate program emphasizing applied mathematics is available to majors in mathematics. Appropriate courses carry the MATH and STAT prefixes, as well as the AMSC prefix.

Certificate

The Certificate in Computational Science introduces students to basic computational methods for better understanding and solving problems in the physical sciences. Numerical techniques and computer architecture will be taught with the goal of applying these to situations in the physical sciences. Computational methods will be applied to problems that are not analytically tractable; for comparison, physical problems that are amenable to analysis will also be examined. The goal of the program is to enhance student understanding of numerical methods that will be of use in graduate school, academic research, and industry.

Certificate Requirements

1. Core Requirements - the following courses are required:

Three courses in Programming Languages, Numerical Methods, and Computer Architecture:

   CMSC106 or CMSC131 Introduction to Programming
   AMSC460 Computational Methods
   AMSC462 Intro to Comp Organization and Tools for Scientific Computing

A course in which advanced computation is applied to scientific problems:

   PHYS474 Computational Physics or
   ASTR415 Computational Astrophysics

A science base:

   PHYS273 Introductory Physics: Waves or
   PHYS270 General Physics: Electrodynamics, Light, Relativity & Modern Physics
   and PHYS271 General Physics: Electrodynamics, Light, Relativity & Modern Physics Lab
Note: Any of CMSC106 or CMSC131, CMSC114 or CMSC132, CMSC214 or CMSC212, ENEE114, PHYS165, may be substituted for CMSC106 or CMSC131. AMSC466 may be substituted for AMSC460. CMSC311 and CMSC351 may be substituted for AMSC462.

2. Electives

Elective courses must be chosen from the list below such that the entire sequence of courses for the Certificate meets the following two conditions: (a) at least 12 credit hours must be at the 300-400 level; (b) at least 12 credit hours must be outside the major. In the case of multiple majors, at least 12 credit hours must be outside all the other major requirements.

ASTR 120 Introductory Astrophysics-Solar System (3)
ASTR 121 Introductory Astrophysics II-Stars and Beyond (4)
ASTR 320 Theoretical Astrophysics (3)
ASTR415 Computational Astrophysics
CMSC 114 or CMSC132 Computer Science I (4)
CMSC 214 or CMSC212 Computer Science II (4)
CMSC 250 Discrete Structures (4)
GEOL 341 Structural Geology (4)
MATH 240 Introduction to Linear Algebra (4)
MATH 241 Calculus III (4)
MATH 246 Differential Equations for Scientists and Engineers (3)
MATH 431 Geometry for Computer Graphics (3)
MATH 452 Introduction to Dynamics and Chaos (3)
MATH 462 Partial Differential Equations for Scientists and Engineers (3)
MATH 464 Transform Methods to Scientists and Engineers (3)
PHYS 171 Introductory Physics: Fields (3)
PHYS 272 Introductory Physics: Fields (3)
PHYS 273 Introductory Physics: Waves (3)
PHYS 374 Intermediate Theoretical Methods (4)
PHYS 401 Quantum Physics I (4)
PHYS 420 Principles of Modern Physics (3)
PHYS 402 Quantum Physics II (4)
PHYS 404 Introduction to Statistical Thermodynamics (3)
PHYS 410 Classical Mechanics (4)
PHYS 411 Intermediate Electricity and Magnetism (4)
PHYS 474 Computational Physics

Undergraduate Research Experiences

An honors program provides opportunities for outstanding students to engage in research on a computational project with a faculty member. Students will be accepted into this program after their sophomore year based on their academic performance.


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ARCHITECTURE (ARCH)

School of Architecture, Planning, and Preservation
Architecture Building, 301-405-8000
www.arch.umd.edu

The Major

The School of Architecture, Planning, and Preservation offers a four-year undergraduate program leading to the Bachelor of Science degree in architecture, and a graduate program leading to the professional degree of Master of Architecture. For information see the School of Architecture, Planning, and Preservation entry in Chapter 6.

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Art (ARTT)

College of Arts and Humanities
1211-E Art/Sociology Building, 301-405-7790
www.art.umd.edu
artdept@umd.edu
Chair: J. Ruppert
Professors: T. Lapinski, F. Sham
Associate Professors: P. Craig, M. Humphrey, P. Kehoe, R. Klank, R. Lozner, J. McCarty, W. Richardson, J. Thorpe
Assistant Professors: D. Gavin, B. Morse, J. Pinder, J. Strom
Professors Emeriti: C. Demonte (Distinguished Scholar-Teacher), D. Driskell (Distinguished University Professor)

The Major

The Department of Art is a place where students transform ideas and concepts into objects and visual experiences. It is an environment rich in art theory, criticism, and awareness of diverse world culture. Students are taught to articulate and refine creative thought and apply knowledge and skill to the making of images, objects, and experimental works. Courses are meaningful to students with the highest degree of involvement in the program and those who take electives. Students majoring in Art take a focused program of courses folded into a general liberal arts education offered by the university.

The diverse faculty of artists in the department strive to foster a sense of community through the common experience of the creative process, sharing their professional experience freely with students.

The areas of concentration within the major are design, drawing, painting, printmaking, digital imaging, and sculpture. Areas of study include papermaking, photography, and art theory. Internships and independent studies are also available.

Requirements for the Major

Undergraduate students are offered a Bachelor of Arts (B.A.) in Art. The requirements consist of a curriculum of 36 credits of art studio and art theory courses, and 12 additional credits of art history and art theory courses as a supporting area for a total of 48 major required credits. No course with a grade less than C may be used to satisfy major or supporting area requirements.

Advising

The name of the advisor for each class is available in the department office. Each second-semester sophomore and first-semester senior is required to see his or her advisor within the department. Additionally, each student is strongly encouraged to see his or her advisor in the department each semester.

Internships

Students have worked in a variety of internship settings. These have included assisting professionals complete public commissions, commercial or cooperative gallery and exhibition
duties, and working in professional artists' workshops in the Baltimore and Washington, D.C.
metropolitan areas. Additional information is available in the Department of Art office.

**Honors Program**

The Honors Program is available to art studio majors for the purpose of creating opportunities
for in-depth study and enrichment in areas of special and creative interest. To qualify, students
must be art majors with junior or senior status, a major G.P.A of 3.2, and an overall G.P.A. of
3.0. The program requires a total of 12 credits in Honors course work. One course (3 credits)
must be taken at the 300-level, and three courses (3 credits each) at the 400-level. There is a
thesis component in one of the 400-level courses. Please consult the Honors Advisor for
additional information.

**Scholarships and Financial Assistance**

The Department of Art administers eight Creative and Performing Arts Scholarships (CAPAs)
that are available to freshman and entering transfer students for the Fall semesters. This is a
merit-based scholarship that is awarded on a one-year basis, and may be renewed. Additional
information is available in the main office of the department. The James P. Wharton Prize is
awarded to the outstanding Art major participating in the December or May graduation
exhibition. The Van Crews Scholarship is designated for outstanding Art majors concentrating in
design. It is awarded for one year and is renewable. The David C. Driskell Award for the
Outstanding Graduating Graduate Student is awarded at the end of the academic year.

**Student Art Exhibitions**

The West Gallery (1309 Art/Sociology Building) is an exhibition space devoted primarily to
showing the art work of students. It is managed by undergraduate art majors, assisted by a
faculty advisor.

**Lecture Program**

The Department of Art has a lecture program in which artists and critics are brought to the
campus to explore ideas in contemporary art. A strong component of this program is devoted to
diversity.
ART HISTORY AND ARCHAEOLOGY (ARTH)

College of Arts and Humanities
1211-B Art/Sociology Building, 301-405-1479
www.arthistory.umd.edu

Faculty
W. Pressly

The Major

Program Objectives
The Department of Art History and Archaeology’s B.A. program provides majors critical knowledge of visual culture in both art historical and archaeological contexts. The program promotes visual literacy in the history of art of global cultures from prehistoric times to the present; cultivates strong research, written, and critical thinking skills; and develops students’ ability to synthesize cultural, historical, political, and social information as it bears upon the visual arts.

Program Learning Outcomes
Students are expected to fully engage with the curriculum and the opportunities presented for learning and research. Having completed B.A. in Art History, students should have acquired the following knowledge and skills:

1. An ability to demonstrate knowledge of a large set of artistic monuments, objects, and performances in the history of art and in specific periods and/or cultures and place the visual arts in cultural, historical, political, and/or social contexts.

2. An ability to communicate effectively about art in writing, applying complex forms of analysis in essay-length papers using clear and concise prose.

3. An ability to employ the appropriate technologies for conducting research in the history of art, including print sources and/or electronic information.
4. An ability to recognize and understand fundamental art historical methods encompassed by but not limited to connoisseurship, stylistic chronology, visual and technical analysis, in addition to specialized methods of interpretation and criticism and other contextual approaches.

**Academic Programs and Departmental Facilities**

The location of the university between Washington and Baltimore gives students the opportunity to use some of the finest museum and archival collections in the world for their course work and independent research. The department encourages students to hold internships at a number of these institutions. Curator/professors, exhibitions in The Art Gallery at the University of Maryland, interactive technologies, and the extensive use of study collections bring regional and distant museums into the classroom.

The department is in the forefront of exploring digital imaging technologies for art historical and archaeological teaching, research, and publication.

**Requirements for the Major**

Requirements for the major in Art History are as follows:

**Credits**

**One from:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTT100</td>
<td>Two Dimensional Art Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ARTT110</td>
<td>Elements of Drawing I</td>
<td></td>
</tr>
</tbody>
</table>

**ARTH required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH2xx</td>
<td>three ARTH courses at the 200 level</td>
<td>9</td>
</tr>
<tr>
<td>ARTH300/400</td>
<td>seven ARTH courses at the 300-400 level</td>
<td>21</td>
</tr>
</tbody>
</table>

**Supporting Area:**

A supporting area of four courses in coherently related subject matter outside the department of Art History and Archaeology at the 300-400 level

No credit toward the major can be received for ARTH 100 or 355.
No course with a grade lower than C may be used to satisfy major or supporting area requirements.

**Advising**

Departmental advising is mandatory for all majors.

**Internships**

Qualified majors should consult with a departmental advisor for internship opportunities.

**Honors Program**

Qualified majors may participate in the department's honors program, which requires the completion of ARTH488 or ARTH489, ARTH 496 (Methods of Art History) and ARTH 499 (Honors Thesis). Consult a departmental advisor for details.

**Awards and Recognition**

The Department of Art History and Archaeology offers three undergraduate awards each year: the J.K. Reed Fellowship Award to an upper-level major and the George Levitine and Frank DiFederico Book Awards to seniors nearing graduation.
Asian and East European Languages and Cultures (AEEL)

For information consult the School of Languages, Literatures, and Cultures elsewhere in chapter 7.
Asian American Studies Certificate

Office of Undergraduate Studies
1120 Cole Student Activities Building, 301-405-0996
www.aast.umd.edu
aast@umd.edu
Director: Larry Hajime Shinagawa, Ph.D.

The Asian American Studies Program (AAST) provides students with the opportunity to study critically the experiences of Asian Americans. Through an interdisciplinary approach, students examine the histories, communities and cultures of Asian Americans as both distinctive from and connected to the broader themes for diversity, ethnicity, race, gender and migration in the Americas. AAST offers a 21 credit-hour undergraduate certificate for students as well as a 15 credit-hour minor. For both the Certificate and the Minor, courses may be cross-listed in other departments and some may satisfy CORE requirements.

Certificate Requirements:

A. AAST Core Courses (6 credits):

1. Introduction to Asian American Studies (AAST200)
2. Asian American History and Society (AAST201)

B. Elective Courses (12 credits): Students may earn the 12 required elective credits by successfully completing any of a number of special topics courses AAST offers each semester. Elective requirements may also be satisfied through successful completion of courses offered through other departments or programs. Students must obtain approval from the AAST program director for courses outside of AAST offerings.

C. AAST Senior Capstone (3 credits): Students participate in a faculty-guided research project (AAST388) or an experiential learning project such as an internship with an Asian American or Asian Pacific American organization (AAST378).

D. All courses toward the Certificate must be completed with minimum grade of "C." Students interested in earning the certificate should first schedule an advising appointment at the AAST office. Students in good standing may then officially enroll in the certificate program. While students may begin taking courses before they enroll in the certificate program, they should schedule an advising appointment as soon as possible.

Minor Requirements:

A. AAST Core Courses (6 credits):

1. Introduction to Asian American Studies (AAST 200)
2. Asian American History and Society (AAST 201)

B. Upper-level Courses (6 credits): In addition to the two required foundational courses, students will also select two additional upper-level (300/400) courses, one of which would be at the 400 level, from the following list of regular and

C. The final requirement for the Minor is the successful completion of AAST 378, a semester-long internship at an organization that centers its efforts on Asian American issues. Such organizations may include governmental units, non-profit agencies, and on-campus organizations.
situation must meet with the Departmental Advisor to make appropriate plans.

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Astronomy (ASTR)

College of Computer, Mathematical and Physical Sciences
1204 Compute and Space Sciences Building, 301-405-3001
www.astro.umd.edu
astr-grad@deans.umd.edu

The Major

The Astronomy Department offers courses leading to a Bachelor of Science in Astronomy as well as a series of courses of general interest to non-majors. Astronomy majors are given a strong undergraduate preparation in Astronomy, Mathematics, and Physics. The degree program is designed to prepare students for positions in government and industry laboratories or for graduate work in Astronomy or related fields. A degree in Astronomy has also proven valuable as preparation for non-astronomical careers.

Academic Programs and Departmental Facilities

The Department of Astronomy is a partner in the Combined Array for Research in Millimeter-Wave Astronomy (CARMA) which operates a millimeter wavelength radio array located near Bishop, California. The array is the largest and most sensitive array in the world. The Department is a partner with Kitt Peak National Observatory in the building of a large format near infrared camera for the Mayall 4-meter optical telescope. Opportunities are available for undergraduates to become involved in research with both facilities. The Department also operates a small observatory on campus. There are four fixed telescopes ranging in aperture from 20” to 7”. There are also six portable 8” telescopes. Most of the telescopes now have CCD cameras and several are computer controlled. This facility is used extensively for undergraduate classes. An Observatory Open House Program for the public is also run. Details are available from the Astronomy Department office.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR120 Introductory Astrophysics: Solar System</td>
<td>3</td>
</tr>
<tr>
<td>ASTR121 Introductory Astrophysics II: Stars and Beyond</td>
<td>4</td>
</tr>
<tr>
<td>ASTR310 Observational Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>ASTR320 Theoretical Astrophysics</td>
<td>3</td>
</tr>
<tr>
<td>ASTR4-- 400 level astronomy courses</td>
<td>6</td>
</tr>
<tr>
<td>PHYS171* Introductory Physics: Mechanics and Relativity</td>
<td>3</td>
</tr>
<tr>
<td>PHYS174 Physics Laboratory Introduction</td>
<td>1</td>
</tr>
<tr>
<td>PHYS272* Introductory Physics: Fields</td>
<td>3</td>
</tr>
</tbody>
</table>
PHYS273* Introductory Physics: Waves  3  
PHYS275 Experimental Physics I: Mechanics and Heat  2  
PHYS276 Experimental Physics II: Electricity and Magnetism  2  
PHYS374 Intermediate Theoretical Methods  4  
PHYS401 Quantum Physics I  4  
PHYS404 Introduction to Statistical Thermodynamics  3  
MATH140 Calculus I  4  
MATH141 Calculus II  4  
MATH240 Introduction to Linear Algebra  4  
MATH241 Calculus III  4  
MATH246 Differential Equations for Scientists and Engineers  3  

*With the permission of the advisor, PHYS 161, 262, 263 can be substituted for this sequence.

The program requires that a grade of C or better be obtained in all courses required for the major. Students planning to double major (or to seek a double degree) in Physics and Astronomy should note that this combination does not automatically satisfy CORE Advanced Studies. They should discuss the issue with their academic advisors to assure that their program meets all degree requirements.

Detailed information on typical programs and alternatives to the standard program can be found in the pamphlet entitled, Department Requirements for a Bachelor of Science Degree in Astronomy which is available from the Astronomy Department office.

**Requirements for the Minor**

A Minor in Astronomy may be earned by completing the following with grades of C or better; contact Department for complete rules and procedures.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR100</td>
<td>3</td>
</tr>
<tr>
<td>ASTR101 OR any other</td>
<td>3</td>
</tr>
<tr>
<td>ASTR1--any other</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 220</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 300</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 330</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 340</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 380</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 498</td>
<td>1-6</td>
</tr>
</tbody>
</table>

**Honors Program**

The Honors Program offers students of exceptional ability and interest in Astronomy opportunities for part-time research participation which may develop into full-time summer projects. Honors students work with a faculty advisor on a research project for which academic credit may be earned. Certain graduate courses are open for credit toward the bachelor's degree. (Students are accepted into the Honors Program by the Department's Honors Committee on the basis of grade point average or recommendation of faculty.) Honors candidates submit a written proposal on their research project and enroll in ASTR 399, complete a research project, write a thesis and do an oral presentation before a committee. Satisfactory grades lead to graduation With Honors (or High Honors) in Astronomy.

**For Additional Information**

Further information about advising and the Honors Program can be obtained by calling the Department of Astronomy office at 301-405-3001. Students who have been away more than two years may find that due to curriculum changes the courses they have taken may no longer be adequate preparation for the courses required to complete the major. Students in this
Atmospheric and Oceanic Science (ATMOS)

College of Computer, Mathematical and Physical Sciences
3417 Computer and Space Sciences Building, 301-405-5391
www.atmos.umd.edu
Chair: R. Dickerson
Associate Professors: R. Murtugudde, N. Zeng
Assistant Professors: D. Kirk-Davidoff
Adjunct Professors: M. King, K. Pickering
Professors Emeriti: F. Baer, R. Ellingson, A. Vernekar

Requirements for the Minor

Three Minor tracks are available:

- Minor in Meteorology
- Minor in Atmospheric Sciences
- Minor in Atmospheric Chemistry

The Minor in Meteorology is the most suitable preparation for graduate students in Atmospheric and Oceanic Science. For more details visit: atmos.umd.edu/MINOR or contact the Undergraduate Advisor, R. Hudson: (hudson@atmos.umd.edu).

The following undergraduate courses are offered:

- AOSC123 Global Change: Implications of Global Climate Change
- AOSC200 Weather & Climate: Atmospheric Sciences and Forecasting
- AOSC201 Weather & Climate Lab: Laboratory for AOSC 200
- AOSC375 Introduction to the Blue Ocean: Physical, Chemical and Biological Properties of the Ocean
- AOSC400 The Atmosphere: Weather and Climate Systems
- AOSC401 Global Environment: The Atmosphere-Ocean-Biosphere
- AOSC431 Atmospheric and Oceanic Science for Scientists and Engineers I
- AOSC432 Atmospheric and Oceanic Science for Scientists and Engineers II
- AOSC434 Air Pollution: Generation, transport and removal of air pollutants
- AOSC499 Special Problems in Atmospheric Sciences: Research in Atmospheric Sciences

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FISCHELL DEPARTMENT OF BIOENGINEERING  
(BIOE)

A. James Clark School of Engineering  
2237 Jeong H. Kim Engineering Building, 301-405-1192  
www.bioe.umd.edu/

Chair: W. Bentley (Prof, Chair)  
Director: P. Kofinas (Prof, Graduate Program Director), A. Shirmohammadi (Prof,  
Undergraduate Program Director)

Professors: A. Johnson, Y. Tao
Register: K. Herold, H. Montas, Y. Yu (Assoc Prof; joint with UMD School of  
Pharmacy)

Assistant Professors: J. Aranda-Espinoza, J. Fisher, A. Hsieh, J. Seog (Asst Prof; joint with  
ENMS), S. Shah

Adjunct Professors: T. Barbari, B. Griffith, G. Payne

Adjunct Associate Professors: J. Culver, H. Ghandehari, V. Vakharia, C. Yu

Adjunct Assistant Professors: R. Shekhar, Z. Wu

The Major

Bioengineering is rooted in physics, mathematics, chemistry, biology, and the life sciences. It is  
the application of a systematic, quantitative, and integrative way of thinking about and  
approaching the solutions of problems important in biology, biosystems, medical research,  
clinical practice, and population studies. Bioengineering integrates physical, chemical, or  
mathematical sciences and engineering principles for the study of biology, medicine, behavior,  
and health. It advances fundamental concepts, creates knowledge from the molecular to the  
organ and the systems levels, and develops innovative biologics, materials, processes,  
implants, devices, and informatics approaches for the prevention, diagnosis, and treatment of  
disease, for improved health.

Bioengineers specialize in those products made from, used with, or applied to biological  
organisms. In addition to engineering science and design, they study biochemistry, cell  
biochemistry, microbiology, genetics, physiology, bioinformatics, biorheology, bioimaging, and  
biosystems. The symbiosis between engineering and biology gives bioengineers unique  
capabilities in our modern world.

Courses offered by this department may be found under the following acronym: BIOE

Program Objectives

The Undergraduate Program in Bioengineering is founded in biology, driven by human health  
issues, and is forward-thinking. Our objective is to marry the principles and applications  
embedded in engineering with the sciences of biology, medicine, and health. Maryland  
bioengineers gain a broad-based education in which engineering approaches are brought to  
bear on understanding and improving living systems.

We aspire to be among the very best, providing exceptional educational and practical  
experiences for our students. We will educate students to excel in the field of bioengineering  
and carry out research and development of biomedical systems that will improve health care  
throughout the world.

Program Learning Outcomes
- Demonstrate knowledge of fundamental principles in engineering and biology
- Demonstrate commitment to the bioengineering/biomedical engineering sector
- Experience a multicultural, collegiate working environment

**Academic Programs and Departmental Facilities**

The Fischell Department of Bioengineering has established relationships with biomedical research centers, such as the University of Maryland Biotechnology Institute, the National Institutes of Health, the Food and Drug Administration (FDA), and other educational institutions such as the University of Maryland Baltimore (UMB) Schools of Medicine, Dentistry, and Pharmacy. Our undergraduate students will learn from regulatory experts through collaborative research with FDA scientists and engineers located only 5 miles from campus. They will also have the opportunity to perform internships at the UMB, work in its labs, and gain exposure to clinical practice. Our growing interdisciplinary faculty is dedicated to integrating bioengineering with these programs.

Bioengineering laboratories include:

- Cell Biophysics Laboratory
- Biomaterials Laboratory
- Orthopaedic Mechanobiology Laboratory
- Human Performance Laboratory
- Functional Macromolecular Laboratory
- Neuromuscular Bioengineering Laboratory
- Bio-imaging and Machine Vision Laboratory

**Admission to the Major**

All Bioengineering majors must meet admission, progress, and retention standards of the A. James Clark School of Engineering.

**Advising**

All Bioengineering majors must participate in an advising session prior to registering each semester. Students are assigned to a faculty advisor no later than their second semester in the major. Any questions about the program may be directed to the Bioengineering Department Office, 2237 Jeong H. Kim Engineering Building, 301-405-1192.

**Undergraduate Research Experiences**

All students in our major have the opportunity to participate in research in state-of-the-art labs on campus or at surrounding government or industrial locations, either through projects within the Department or through the Engineering Co-op and Career Services office. Special programs and services include the ASPIRE Program, in which students collaborate with faculty and staff on real-world engineering projects; the Maryland Center for Undergraduate Research, which assists students in finding on- and off-campus research opportunities; and the NSF-sponsored Research Experiences for Undergraduates (REU) Program, in which students work with full-time faculty, visiting scientists, and others on relevant research. Our REU site is the only one of its kind in the nation dedicated to molecular and cellular engineering.

**Scholarships and Financial Assistance**

The University and the A. James Clark School of Engineering offer a range of financial support to talented undergraduate students enrolled at the School. Offerings include the A. James Clark Endowed Scholarship fund and the Benjamin T. Rome Scholarship. Our program is competitive, with awards made on the basis of merit, financial need, and other factors. For more information on a variety of scholarships, please visit [www.ursp.umd.edu](http://www.ursp.umd.edu).

In addition, the Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices,
participates in the awarding of scholarships to deserving students. For information, please visit: www.financialaid.umd.edu.
Biological Sciences Program (BSCI)

College of Chemical and Life Sciences
1322 Symons Hall, 301-405-6892
www.chemlife.umd.edu
Dr. Joelle Presson, Assistant Dean Academic Undergraduate Programs

The Major

The Biological Sciences major is jointly offered by the Departments of Biology, Cell Biology & Molecular Genetics, and Entomology. All Biological Sciences majors complete a common sequence of introductory and supporting courses referred to as the Basic Program. In addition, students must complete an Advanced Program within one of the following specialization areas:

- Cell Biology & Genetics (CEBG)
- Ecology & Evolution (ECEV)
- General Biology (GENB)
- Microbiology (MICB)
- Physiology & Neurobiology (PHNB)
- Individualized Studies (BIVS)

A complete list of specialization area requirements can be found on our website, www.chemlife.umd.edu. Note that the Individualized Studies specialization (BIVS) requires permission of the Assistant Dean of Undergraduate Academic Programs, and involves an approved proposal to do coursework in the College and in other disciplines. Further questions about Biological Sciences can be directed to the Undergraduate Academic Program Office at 301-405-6892.

Requirements for the Major

<table>
<thead>
<tr>
<th>CORE</th>
<th>CORE Program Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSCI105</td>
<td>Principles of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BSCI106</td>
<td>Principles of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BSCI207</td>
<td>Principles of Biology III</td>
<td>3</td>
</tr>
<tr>
<td>BSCI222</td>
<td>Principles of Genetics</td>
<td>4</td>
</tr>
<tr>
<td>MATH220</td>
<td>Elementary Calculus I, OR</td>
<td>3</td>
</tr>
<tr>
<td>MATH140</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH221</td>
<td>Elementary Calculus II, OR</td>
<td>3</td>
</tr>
<tr>
<td>MATH141</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM131/132*</td>
<td>Fundamentals of General Chemistry /Lab</td>
<td>4</td>
</tr>
</tbody>
</table>
A grade of C or better is required for BSCI 105, 106 and 222 (the diversity course), all courses in the Advanced Program, and all supporting courses (math, chemistry, and physics). Majors in Biological Sciences cannot use any Chemical and Life Sciences course to fulfill CORE Advanced Studies requirements, including courses in CHEM or BCHM.

**Advising**

Advising is mandatory during each pre-registration period for all Biological Sciences majors. All freshmen and new transfer students will be assigned an advisor from the College of Chemical and Life Sciences Student Services advising staff. Students will be assigned to a departmental faculty advisor once a basic sequence of courses has been successfully completed. The departmental faculty advisors are coordinated by the following persons for the indicated specialization areas. These coordinating advising offices can be contacted for making appointments with an advisor or for any other information regarding that specialization area.

<table>
<thead>
<tr>
<th>Name</th>
<th>Office</th>
<th>Phone</th>
<th>Specialization(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straney</td>
<td>1225 H.J. Patterson</td>
<td>301-405-2766</td>
<td>CEBG, GENB, MICB</td>
</tr>
<tr>
<td>Compton</td>
<td>2227 Biology-Psychology</td>
<td>301-405-6904</td>
<td>ECEV, PHNB</td>
</tr>
<tr>
<td>Kent</td>
<td>3142 Plant Sciences</td>
<td>301-405-3911</td>
<td>GENB</td>
</tr>
<tr>
<td>Presson</td>
<td>1322 Symons Hall</td>
<td>301-405-6892</td>
<td>BIVS, Education Double major</td>
</tr>
</tbody>
</table>

**Honors Program**

Outstanding students are encouraged to apply to departmental Honors Programs. Through the Honors Programs students will become actively involved in the ongoing scientific research at the university. Information about these honors programs may be obtained from the Undergraduate Academic Programs Office, 1322 Symons Hall, 301-405-6892.

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Biology (BIOL)

College of Chemical and Life Sciences
2227 Biology-Psychology Building, 301-405-6904
www.biol.umd.edu
bioundergrad@umd.edu
Chair: R. Payne (Prof)
Instructors: P. Koines, J. Opoku-Edusei
Lecturers: R. Compton (Senior Lect), R. Infantino (Senior Lect), J. Jensen
Professors Emeriti: G. Anastos, E. Clark, J. Corliss, A. Haley, R. Highton, S. Pierce

Requirements for the Major

See Biological Sciences Program elsewhere in this chapter, or contact the Department of Biology Undergraduate Office.

Advising

Advising in the Biological Sciences program is mandatory. Students are assigned an advisor based on their area of specialization. The Department of Biology faculty coordinate and advise students who specialize in Physiology and Neurobiology (PHNB), and Ecology and Evolution (ECEV). Contact the Department of Biology Undergraduate Office, 405-6904, for information about advising or to schedule an appointment. For advising in other Biological Sciences Specialization areas, see the Biological Sciences Program listing in this catalog.

Honors Program

The Department of Biology Honors Program offers highly motivated and academically qualified students the opportunity to work closely with a faculty mentor on an original, independent research project. Students are required to participate in the program for at least three semesters and need not have been admitted University Honors program in order to participate. Contact the undergraduate office for more information.

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Undergraduate Catalog 2007-2008

Departments, Majors, and Programs

Business, General

For information, see Logistics, Business and Public Policy elsewhere in this chapter.

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CELL BIOLOGY AND MOLECULAR GENETICS (CEBG)

Cell Biology & Molecular Genetics (CEBG)

Faculty
Chair: S. Wolniak (Prof)
Director: D. Straney (Assoc. Prof)
Professors: G. Bean, T. Cooke, E. Gantt (Dist Univ Prof), S. Hutcheson, D. Mosser, A. Simon, D. Stein, H. Sze
Assistant Professors: V. Briken, J. DiRuggiero, K. Frauwirth, B. Fredericksen, L. Gao, J. Kwak, V. Lee
Instructors: A. Smith
Lecturers: E. Moctezuma, B. Quimby, P. Shields
Affiliate Professors: M. Colombini (Biol), W. Jeffery (Biol), I. Mather (ANGR), S. Salzberg (CBCB)
Affiliate Associate Professors: I. Ades (Biol), L. Pick (Ent)
Affiliate Assistant Professors: I. Hamza (AGNR), D. Perez (AGNR)
Adjunct Professors: P. Hobart (USAMRIID), B. Moss (NIH), D. Nuss (UMBI)), V. Vakharia (UMBI), R. Wickner (NIH)
Adjunct Associate Professors: E. Baehrecke (UMBI), J. Culver (UMBI), E. Freed (NCI), K. Green (NIH), O. White (TIGR), L. Wu (UMBI)

The Major

The department participates in the teaching and advising of students in the Biological Sciences Program, specifically in the Specialization Areas of Cell Biology & Genetics (CEBG), Microbiology (MICB), and General Biology (GENB). Our courses are taught in four basic areas that represent faculty research interests and expertise including:

- Cell and Developmental Biology
- Genetics and Genomics
- Microbiology, Microbial Pathogenesis and Immunology
- Plant Biology

Requirements for the Specialization Areas
See Biological Sciences Program catalog entry for more information on the degree requirements.

Requirements for the Major
See Biological Sciences Program catalog entry for more information on the degree requirements.

Advising
Advising is mandatory. The Department in coordination with the Student Affairs Office of the College of Chemical and Life Sciences administers the advising of students in the Biological Sciences specialization areas of Microbiology, Cell Biology and Genetics, and General Biology. Advising assignments can be found by contacting the Cell Biology and Molecular Genetics Undergraduate Program Office, 1225 H.J. Patterson Hall (301-405-2766) or see the site:
Undergraduate Research Experiences

Students may participate in Department hosted research experiences in faculty laboratories or laboratories at off campus locations. Please contact the Cell Biology and Molecular Genetics Undergraduate Office (301 405-2766) for more information or see the site: www.cbmg.umd.edu/undergrad/research.html

Honors Program

The Departmental Honors Program involves a long term (three semester) independent research project undertaken with a faculty advisor. Please contact the Cell Biology and Molecular Genetics Undergraduate Office for more information or see the site: www.cbmg.umd.edu/undergrad/research.html

Student Societies and Professional Organizations

All students interested in microbiology are encouraged to join the University of Maryland Student Chapter of the American Society for Microbiology. Sigma Alpha Omicron is the honors chapter of this group. The groups meet regularly on campus. Information is available through the Undergraduate Program Office.

Awards and Recognition

The P. Arne Hansen Award is awarded annually to a Departmental Honors student who has demonstrated outstanding achievement through the research experience. The Sigma Alpha Omicron Award is giving to outstanding seniors who have excelled in the areas of Microbiology, or in Cell Biology and Genetics. The Appleman-Norton Award is given to the senior who has excelled in the area of Plant Biology.

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Central European, Russian and Eurasian Studies (CERE)

College of Arts and Humanities
2115 Francis Scott Key Hall, 301-405-4295
www.ceres.umd.edu
Director: M. David-Fox
Associate Professors: K. Gor, D. Hitchcock, M. Isaacs (Visit Assoc Prof), J. Kaminski, M. Lekic, C. Martin, C. Schuler
Assistant Professors: E. Adler (Visit Asst Prof), K. David-Fox, E. Papazian

The Major

CERES offers courses leading to a Bachelor of Arts degree. Students in the program study Central/East European, Russian, and Eurasian culture as broadly inflected, striving to comprehend it in all its aspects rather than focusing attention on a single element or pattern of behavior. It is expected that insights into the region's ways of life will be valuable not only in their own terms but also as a means to deepen students' awareness of their own society, and of themselves.

Course offerings are in a range of departments (and across several colleges), including History, Art History and Archaeology, Government and Politics, Economics, Sociology, Theatre, Germanic Studies, Jewish Studies, Asian and East European Languages and Cultures.

Requirements for the Major

Requirements for the CERES major include the College of Arts and Humanities's mandated completion of 45 upper-level credits. The College's foreign-language requirement will be automatically fulfilled in the process of fulfilling the CERES requirement of taking either Russian, German, or a Central/East European language (including Czech, Polish, Hungarian, Serbian and Croatian, Bulgarian, and Romanian). The language requirement may also be fulfilled by an Eurasian language (i.e., a language from a country formerly part of the Soviet Union). Those interested in fulfilling the CERES language requirement through a Central/East European or Eurasian language should consult the director upon entering the program.

Students who elect the Russian language track must complete a minimum of 24 credit hours in Russian language and literature selected from among the following courses (or their equivalents):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS101</td>
<td>6</td>
</tr>
<tr>
<td>RUSS102</td>
<td>6</td>
</tr>
<tr>
<td>RUSS201</td>
<td>5</td>
</tr>
<tr>
<td>RUSS202</td>
<td>5</td>
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<td>RUSS301</td>
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<td>RUSS321</td>
<td>3</td>
</tr>
<tr>
<td>RUSS322</td>
<td>3</td>
</tr>
<tr>
<td>RUSS401</td>
<td>3</td>
</tr>
</tbody>
</table>
Students interested in specializing primarily on Central/Eastern Europe may opt for the German language track, and must complete a minimum of 24 credit hours in the Department of Germanic Studies from among the following courses (or their equivalents):

- Also accepted will be 16 credit hours of Russian or German and the equivalent of 8 credit hours of a Central/East European language.
- Fulfilling the language requirement through a Eurasian language will be decided on a case-by-case basis in consultation with the director.
- In addition to language courses, students must complete 24 hours of CERES approved courses at the 300-level or above. These 24 hours must be taken in at least four different departments (with the School of Languages, Literatures and Cultures counting as a single department), and may include language-literature courses beyond the required 24 hours. Of the 24 hours, at least 9 hours must be in courses with substantial or specific focus on Central/East Europe (for example, ARTH 350 or 488C, GVPT 359, 409, HIST 319, 340, 443 and other special courses offered in the CERES area with the approval of the director) and at least 9 hours must be in those CERES courses with substantial or specific Russian/Eurasian focus (for example, GEOG 325, GVPT 445, 451, 459A, 481, HIST 344, 424, 425, 442, SOCY 474, THET 499, and other special courses offered in the CERES area with the approval of the director).

For a full listing of this year's CERES courses, see the website www.ceres.umd.edu, and click on "requirements."

The various cooperating departments also offer special (i.e. non-permanent) seminars and courses in the Russian, East European, and Eurasian fields. HIST 237-Russian Civilization, is recommended as a general introduction to the program but does not count toward the fulfillment of the program's requirements.

**Advising**

Course selection and progress toward programmatic requirements are to be discussed individually through meetings with the CERES director.
CERTIFICATE PROGRAMS (UNDERGRADUATE)

Certificate Program Information and Requirements

African American Studies Certificate
Asian American Studies
Computational Science
East Asian Studies Certificate
International Agriculture and Natural Resources
Latin American Studies Certificate
Lesbian, Gay, Bisexual and Transgender Studies (LBGT)
Science, Technology and Society Certificate
Upper Division Certificate in Secondary Education
Women's Studies Certificate

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African American Studies Certificate

College of Behavioral and Social Sciences
2169 LeFrak Hall, 301-405-1158
www.bsos.umd.edu/aasp

The African American Studies Certificate program offers the opportunity to develop a specialization in African American studies while pursuing a major in another field. Certificate students learn about the social, economic, political, and cultural history of African American people through a concentration of courses (21 credit hours). Courses taken toward the certificate also may be used to satisfy CORE requirements and electives. Undergraduates in good standing may apply for the program by contacting the academic advisor of the African American Studies Department in 2169 LeFrak Hall. Students pursuing the certificate must meet the University's general education (CORE) and department requirements. See also the African American Studies department listing earlier in chapter 7.

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CERTIFICATE PROGRAMS (UNDERGRADUATE)

- African American Studies Certificate
- Asian American Studies Certificate
- Computational Science
- East Asian Studies Certificate
- International Agriculture and Natural Resources
- Latin American Studies Certificate
- Lesbian, Gay, Bisexual and Transgender Studies (LBGT)
- Science, Technology and Society Certificate
- Upper Division Certificate in Secondary Education
- Women's Studies Certificate

### Asian American Studies

**Office of Undergraduate Studies**

1120 Cole Student Activities Building, 301-405-0996  
www.aast.umd.edu  
aast@umd.edu

The Asian American Studies Program (AAST) provides students with the opportunity to study critically the experiences of Asian Americans. Through an interdisciplinary approach, students examine the histories, communities, and cultures of Asian Americans as both distinctive from and connected to the broader themes of diversity, ethnicity, race, gender, and migration in the Americas. AAST offers an undergraduate certificate for students who wish to develop a specialization in Asian American studies alongside their degree pursuits.

For more information, see Office of Undergraduate Studies in Chapter 6.
Computational Science

College of Computer, Mathematical and Physical Sciences
3103 Mathematics Building, 301-405-0924
www.amsc.umd.edu

For program requirements see Certificate in Computational Science in the section on Applied Mathematics and Scientific Computation earlier in Chapter 7.

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East Asian Studies Certificate

College of Arts and Humanities
2101B Francis Scott Key Hall, 301-405-4309

The Undergraduate Certificate in East Asian Studies is a 24-credit course of instruction designed to provide specialized knowledge of the cultures, histories, and contemporary concerns of the peoples of China, Japan, and Korea. It will complement and enrich a student’s major. The curriculum focuses on language instruction, civilization courses, and electives in several departments and programs of the university. It is designed specifically for students who wish to expand their knowledge of East Asia and demonstrate to prospective employers, the public, and graduate and professional schools a special competence and set of skills in East Asian affairs.

Upon satisfactory completion of the courses, with a grade of C or better in each course, and recommendation by the Coordinator of the Certificate Program, a certificate will be awarded. A notation of the award of the certificate will be included on the student's transcript. The student must have a bachelor's degree awarded by Maryland (must be College Park campus) previous to or simultaneously with an award of the certificate.

Certificate Requirements

CORE Courses: The student is required to take:

1. HIST 284 East Asian Civilization I
2. HIST 285 East Asian Civilization II
3. Six semester hours of introduction to one of the following East Asian languages (Chinese, Japanese, or Korean):
   - CHIN 101 Elementary Chinese I
   - JAPN 101 Elementary Japanese I
   - KORA 101 Elementary Korean I
   - KORA 102 Elementary Korean II
   - KORA 211 Introductory Reading for Speakers of Korean I
   - KORA 212 Introductory Reading for Speakers of Korean II

Students with language competence equivalent to these language courses are exempted from the language requirement; such students are required to complete an additional six hours of electives in East Asian courses to fulfill the 24-credit requirement for the certificate.

Electives: Students must complete at least 12 hours of electives selected from four regular formally approved courses on East Asia in at least two of the following categories: (1) art history, (2) geography, (3) government and politics, (4) history, (5) language, linguistics, and literature, (6) music, and (7) women's studies. Nine of the 12 hours of electives must be upper division (300-400 level) courses. A maximum of three credit hours of special topics courses on East Asia will be allowed with the approval of the student’s certificate advisor. No more than nine credits from any one department may be applied toward the certificate. No more than nine credits applied to the student’s major may also apply to the certificate. In addition, no more than nine credits of the courses applied toward the certificate may be transferred from other institutions. Students are asked to work with their advisor in ensuring that the electives maintain an intercollegiate and interdisciplinary focus (at least three disciplines are recommended). Interested students should contact the Coordinator of the Certificate Program, Dr. Marlene Mayo, Department of History, Francis Scott Key Hall, mmayo@umd.edu.
International Agriculture and Natural Resources

College of Agriculture and Natural Resources
1104 Symons Hall, 301-405-2078
www.agnr.umd.edu
sabrown@umd.edu

The Certificate in International Agriculture and Natural Resources is designed to enrich a student's major with a global perspective. The required courses focus on: language instruction; international aspects of the environment, agricultural production, development and sustainability, nutrition, and business; an experience abroad; and a capstone course regarding the student's travel abroad. Any student in good academic standing may participate in the certificate program.

Requirements for Certificate

The certificate requires at least 21 credits that may include courses taken toward other degree and CORE requirements. Upon successful completion of the courses, with a grade of C or better in each course and a recommendation of the Associate Dean of the College of Agriculture and Natural Resources, a certificate will be awarded. A notation of the award of the certificate will be included on the student's transcript. In order to receive the certificate, students must have completed all requirements for a bachelor's degree.

Foreign Language
6-8 credits in a foreign language

International Courses
At least 9 credits from the following list of courses, at least 3 of these courses must be in the College of Agriculture and Natural Resources for students not majoring in a program outside of the College of Agriculture and Natural Resources:

- PLSC 303 International Crop Production
- ENST 440 Crops, Soils, and Civilization
- AREC 365 World Hunger, Population, and Food Supplies
- AREC 433 Food and Agricultural Policy
- BMGT 392 Introduction to International Business Management
- BMGT 390 Competing on Quality in a Global Economy
- BSCI 365 International Pesticide Problems and Solutions
- GEOG 434 Agriculture and Rural Development
- NFSC 425 International Nutrition
- ECON 440 International Economics
GVPT 306 Global Ecopolitics

GEOG 422 Population Geography

**Travel Study or Travel Abroad**
Three to four credits of travel study or study abroad. Prerequisite: to have completed the foreign language course work. Prerequisite or co-requisite: six credits from the International Courses List. In order to qualify for the certificate, travel study and study abroad experiences require prior approval of Associate Dean of the College of Agriculture and Natural Resources. For approval, travel experience must demonstrate significant learning opportunities in areas related to agriculture and natural resources and cultural immersion.

**Travel Study Seminar**
1 credit Travel Study Seminar. Prerequisite: completion of the travel study requirement.

This course will require student presentation of their travel experience including a paper, a poster presentation, as well as an oral presentation and discussion.

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Latin American Studies Certificate

College of Arts and Humanities
0128B Holzapfel Hall, (301)405-6459
www.lasc.umd.edu
lasc@umd.edu

The multidisciplinary certificate program in Latin American Studies is open to University of Maryland, College Park undergraduates in any major who are interested in international studies and Latin America. The undergraduate Certificate in Latin American Studies will be awarded to students who have completed 21 credits with a grade of C or better in the following areas.

Requirements for Certificate

A. Core curriculum for all certificate students (12 credits)

LASC/SPAN/PORT 234 Issues in Latin American Studies I
LASC/SPAN/PORT 235 Issues in Latin American Studies II
HIST 250 or HIST 251 Latin American History I or II
LASC/SPAN/PORT/ANTH 458 Senior capstone course in Latin American Studies

B. Additional courses in Latin American Studies (9 credits)

Nine credits are additional courses that must be chosen from an approved list and from at least two different departments. At least six credits must be at the 300- or 400-level. See Latin American Studies advisor for details.

C. Foreign Language Competency

All certificate students must demonstrate their competence in either Spanish or Portuguese. Competency may be proven with a grade of C or better in an intermediate-level course (PORT 204, SPAN 203) or higher. Native speakers of Spanish or Portuguese or students with extensive experience in these languages should consult with the Latin American Studies advisor. Interested students should contact Dr. Eyda Merediz, 2225 Jimenez Hall at emerediz@umd.edu or the LASC Center at 301-405-6459.

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Lesbian, Gay, Bisexual and Transgender Studies (LBGT)

2212 Marie Mount Hall, 301-405-5428
www.lgbts.umd.edu

The program in Lesbian, Gay, Bisexual and Transgender Studies (LBGT) offers an interdisciplinary undergraduate certificate designed to examine the lives, experiences, identities and representations of LGBT persons, those who are today described as having a minority sexual orientation or who are gender transgressive.

For more information, see Office of Undergraduate Studies section in Chapter 6.

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Science, Technology and Society Certificate

1108 Chestertown Hall, 301-405-0527
www.sts.umd.edu/certificate

The Science, Technology, and Society (STS) Undergraduate Certificate program offers students an excellent opportunity to advance their understanding of the complex relationships between science, technology, and society by concentrating their CORE and elective courses (like a college minor). STS courses have been carefully chosen to fit closely into CORE and major field requirements of most students. Therefore, almost all College Park undergraduates can fulfill the certificate requirements without taking additional courses by careful selection of the courses that fulfill their CORE and elective requirements. The STS Certificate program is comprised of 21 credits of coursework (including a capstone course), a monthly colloquium, and an internship opportunity. This mixture of learning experiences helps to cultivate an intellectual and personal forum in which students and faculty can work closely together. This program provides students with an interdisciplinary thematic link for their general education requirements, and it offers a chance for mentored research in areas of personal interest.

Certificate Requirements:
21 credits are necessary to complete the STS Certificate: 9 credits of Fundamental Courses and 12 credits of Elective Courses.

Fundamental Courses (9 credits):
- A natural science or technology course satisfying CORE or a major and approved by the program director
- An introductory history of science and technology course (see program website)
- The senior STS capstone course (UNIV 401)

Elective Courses (12 credits):
Students can choose from a list of over sixty approved courses representing a variety of topic areas relevant to the STS field from a host of disciplines (e.g., AMST, AREC, CPSP, ECON, GEMS, GVPT, HIST, HONR, MICB, NRSC, PHIL, SOCY, ZOOL). Over half of the electives also satisfy CORE Distributive Studies requirements. Two of the electives must be upper-level courses. (Please note: CORE Advanced Studies requires that two upper-level courses be taken outside the major after 56 credits. Upper-level STS courses satisfy this requirement. Check with your academic advisor in your major.) See program website for the complete list of electives.

Students must obtain advice and approval from the program director for their course choices. Students must maintain a minimum grade of C in each STS course. The STS program of study must include a minimum of 9 credits in upper division courses, 2 of which must be electives. It also may not exceed the following maximums: 9 credits of STS courses applied to the student’s major; 3 credits of Special Topics or Selected Topics courses applied to the STS certificate; 9 credits of approved courses taken outside UMCP. Only 6 credits from courses with the AREC, ECON and GVPT prefixes may be used to satisfy the STS Certificate requirements.
Upper Division Certificate in Secondary Education

College of Education
2311 Benjamin Building, 301-405-6877
www.education.umd.edu/EDCI

See Department of Curriculum and Instruction earlier in Chapter 7.

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Women's Studies Certificate

College of Arts and Humanities
2101 Woods Hall, 301-405-6877
www.womensstudies.umd.edu
womensstudies@umd.edu

See Women's Studies Department for faculty roster.

The Women's Studies Certificate Program consists of an integrated, interdisciplinary curriculum on women that is designed to supplement a student's major. Any student in good standing may enroll in the certificate program by declaring her/his intention to the Women's Studies Undergraduate Advisor. For additional information contact the Women's Studies office, 301-405-6827.

Requirements for Certificate

To qualify for a certificate in Women's Studies, a student will be required to earn 21 credits in Women's Studies courses, nine of which must be at the 300/400 level. No more than three credit hours of special topics courses may be counted toward the certificate. No more than nine credits which are applied toward a major may be included in the certificate program. No more than nine credit hours may be taken at institutions other than the University of Maryland. Each student must obtain a grade of C or better in each course that is to be counted toward the certificate. Of the 21 credits, courses must be distributed as follows:

1. Requirements for the Certificate

   Foundation Courses (9 credit hours)
   - WMST200 Introduction to Women's Studies: Women and Society, OR
   - WMST250 Introduction to Women's Studies: Women, Art & Culture
   - WMST400 Theories of Feminism
   - WMST488 Senior Seminar

2. Distributive Courses

   Area I: Arts and Literature (3 credit hours)
   - WMST241 Women Writers of French Expression in Translation (X-listed as FREN241)
   - WMST250 Introduction to Women's Studies: Women, Art, and Culture
   - WMST255 Introduction to Literature by Women (X-listed as ENGL255)
   - WMST275 World Literature by Women (X-listed as CMLT 275)
   - WMST281 Women in German Literature and Society (X-listed as GERM281)
   - WMST348 Literary Works by Women (x-listed as ENGL348)
   - WMST408 Special Topics in Literature by Women before 1800 (X-listed as ENGL 408)
   - WMST444 Feminist Critical Theory (X-listed as ENGL 444)
   - WMST448 Special Topics in Literature by Women of Color* (X-listed as ENGL448)
   - WMST458 Special Topics in Literature by Women after 1800 (X-listed as ENGL458)
WMST466  Feminist Perspective on Women in Art (X-listed as ARTH466)
WMST468  Feminist Cultural Studies
WMST481  Femmes Fatales and the Representation of Violence in Literature(X-listed as FREN481)
WMST496  African American Women Filmmakers* (X-listed as THET 496)
FREN482  Gender and Ethnicity in Modern French Literature

**Area II: Historical Perspectives (3 credit hours)**

WMST210  Women in America to 1880(X-listed as HIST 210)
WMST211  Women in America Since 1880 (X-listed as HIST 211)
WMST212  Women in Western Europe, 1750-present (X-listed as HIST212)
WMST320  Women in Classical Antiquity (X-listed as CLAS 320)
WMST453  Victorian Women in England, France, and the United States (X-listed as HIST 493)
WMST454  Women in Africa* (X-listed as HIST 494)
WMST455  Women in Medieval Culture and Society (X-listed as HIST495)
WMST456  Women in the Middle East*
WMST457  Changing Perceptions of Gender in the US: 1880-1935 (X-listed as HIST 433)
AASP498W  Black Women in United States History*
AMST418J  Women and Family in American Life
HIST309  Proseminar in Historical Writing: Women's History

**Area III: Social and Natural Sciences (3 credit hours)**

WMST200  Introduction to Women's Studies: Women and Society
WMST313  Women and Science (X-listed as BSCI 313)
WMST324  Communication and Gender (x-listed as COMM 324)
WMST325  Sociology of Gender (X-listed as SOCY 325)
WMST326  Biology of Reproduction (X-listed as BSCI 342)
WMST336  Psychology of Women (X-listed as PSYC 366)
WMST360  Caribbean Women*
WMST410  Women in the African Diaspora*
WMST420  Asian-American Women*
WMST425  Gender Roles and Social Institutions
WMST430  Gender Issues in Families (X-listed as FMST 430)
WMST436  Legal Status of Women (X-listed as GVPT 436)
WMST452  Women and the Media (X-listed as JOUR 452)
WMST471  Women's Health (X-listed as HLTH 471)
WMST493  Jewish Women in International Perspective*
WMST494  Lesbian Communities and Difference*
AASP498F  Special Topics in Black Culture: Women and Work*
CCJS498  Special Topics in Criminology and Criminal Justice: Women and Crime
SOCY498W  Special Topics in Sociology: Women in the Military
*Fulfills Women's Studies Multi-Cultural Requirement

3. Courses in Cultural Diversity (6 credit hours)
Students will select one course for a minimum of 3 credit hours. Approved courses are noted with an asterisk in section 2, above. Courses in this category may overlap with other requirements.

4. Remaining Courses
The remaining courses may be chosen from any of the three distributive areas or from among any of the WMST courses including WMST 298 or 498: Special Topics and WMST 499: Independent Study.

Advising
To obtain more information, contact the Undergraduate Advisor, 301-405-6827, or write to the Women's Studies Department, 2101 Woods Hall, University of Maryland, College Park, MD 20742
Course Code: WMST
CHEMISTRY AND BIOCHEMISTRY (CHEM, BCHM)

College of Chemical and Life Sciences
0107H Chemistry Building, 301-405-1788
www.chem.umd.edu
Student Information: 2102 Chem Bldg; 301-405-1791
Chair: M. Doyle (Professor)
B. Eichhorn, D. Falvey, C. Fenselau, J. Fourkas, S. Greer, J. Kahn, G. Lorimer, A. Mignerey, J.
Zachariah
Associate Professors: D. Fushman, L. Isaacs, C. Jarzynski, D. Julin, C. Lee, A. Mullin, V. Munoz,
T. Murphy, R. Walker
Assistant Professors: T. Cropp, D. English, B. Gerratana, D. Kosov, N. LaRonde-LeBlanc, S. Lee,
H. Sintim, A. Vedernikov
Lecturers: B. Dixon, M. McDermott-Jones, M. Montague-Smith, D. Steffek
Affiliate Professors: M. Anisimov, D. Lineback (Res Prof, Affiliate Prof), D. Lineback, S. Sukharev
(Assoc Prof), S. Sukharev
Adjunct Professors: E. Mazzola
Professors Emeriti: J. Bellama, A. Boyd, H. DeVoe, D. Freeman, S. Grim, J. Hansen, K. Henery-
Logan, C. Holmlund, J. Huheey, R. Jaquith, B. Jarvis, F. Kasler, R. Khanna, J. McNesby, G.
Miller, J. Moore, R. Munn, T. O’Haver, J. Sampugna, J. Stewart

Requirements for the Major

Note: The lower-level courses offered by the Department of Chemistry and Biochemistry changed starting in the Fall 2005 semester. The lower-level requirements for chemistry and biochemistry majors are reflected in the requirements listed below. For details, contact the Undergraduate Office or visit the undergraduate section of the Department’s website

Chemistry Majors

All required chemistry and biochemistry courses must be passed with a minimum grade of C. Required supporting courses, including BSCI 105, must be passed with a 2.0 grade point average.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CHEM146/147 Principles of General Chemistry / Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM237 Principles of Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM247 Principles of Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM276/277 General Chemistry and Energetics (Majors) / Lab</td>
<td>5</td>
</tr>
<tr>
<td>CHEM395 Professional Issues in Chemistry and Biochemistry</td>
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</tr>
<tr>
<td>CHEM425 Instrumental Methods of Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM481/483 Physical Chemistry I / Lab</td>
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</tr>
<tr>
<td>ENGL101 Introduction to Writing</td>
<td>3</td>
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<tr>
<td>UNIV100 The Student in the University</td>
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<table>
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<th>Supporting Courses</th>
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<tbody>
<tr>
<td>BSCI105 Principles of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS141/142 Principles of Physics</td>
<td>8</td>
</tr>
<tr>
<td>MATH140 Calculus I</td>
<td>4</td>
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</tbody>
</table>
In order to meet requirements for a degree approved by the American Chemical Society (ACS), students must complete a specific set of courses in addition to this curriculum. Information about ACS certification can be obtained in the undergraduate office.

**Biochemistry Majors**

All required chemistry, biochemistry, and upper-level biological sciences courses must be passed with a minimum grade of C. Required supporting courses, including BSCI 105, must be passed with a 2.0 grade point average.

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM146/147</td>
<td>Principles of General Chemistry / Lab</td>
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<tr>
<td>CHEM237</td>
<td>Principles of Organic Chemistry I</td>
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<td>CHEM247</td>
<td>Principles of Organic Chemistry II</td>
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<tr>
<td>CHEM276/277</td>
<td>General Chemistry and Energetics - Majors / Lab</td>
<td>5</td>
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<tr>
<td>CHEM395</td>
<td>Professional Issues in Chemistry and Biochemistry</td>
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<td>CHEM425</td>
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<tr>
<td>CHEM481/483</td>
<td>Physical Chemistry I / Lab</td>
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<tr>
<td>ENGL101</td>
<td>Introduction to Writing</td>
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<tr>
<td>UNIV100</td>
<td>The Student in the University</td>
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### Supporting Courses

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<td>BSCI105</td>
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<td>PHYS141/142</td>
<td>Principles of Physics</td>
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<tr>
<td>MATH140</td>
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</tr>
<tr>
<td>MATH141</td>
<td>Calculus II</td>
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</table>

**NOTE:** All majors and potential majors are encouraged to take MATH241-Calculus III (4) prior to beginning Physical Chemistry.

### Departmental Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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<tr>
<td>Lower level courses</td>
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<td>Supporting courses</td>
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<tr>
<td>Upper level courses</td>
<td>25</td>
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*must include:

<table>
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<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BCHM461</td>
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<td>BCHM462</td>
<td>Biochemistry II</td>
<td>3</td>
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<tr>
<td>BCHM464</td>
<td>Biochemistry Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>BCHM465</td>
<td>Biochemistry III</td>
<td>3</td>
</tr>
<tr>
<td>BCHM485</td>
<td>Physical Biochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>
* Specific information about course requirements can be obtained in the undergraduate office.

* A student who enrolls in the chemistry or biochemistry program at any time following the first semester of study typically will enter the non-majors introductory sequence (CHEM 131/132, 231/232, 241/242 and 271/272; CHEM 132, 232, 242 and 272 are co-requisite laboratory courses) which fulfills the lower-level departmental requirements. Transfer students who wish to pursue chemistry or biochemistry majors will have their previous chemistry course work carefully evaluated for placement in the appropriate courses. Starting in 2007, transfer students with four or more semesters of general and organic chemistry credit must take, at a minimum, the CHEM 272 laboratory course to complete the introductory sequence.

**Advising**

There is mandatory advising for all Chemical and Life Science majors each semester. Advising appointments can be made by contacting the undergraduate office, 2102 Chemistry Building, 301-405-1791

**Honors Program**

Students with a GPA of 3.0 or better who have completed two semesters of CHEM 399 (Introduction to Chemical Research) have an opportunity to sign up for CHEM 398 (Honors Research) in their senior year and be considered for departmental honors. After successful completion of a senior honors thesis and seminar, graduation with honors or with high honors in chemistry or biochemistry can be attained.

**Student Societies and Professional Organizations**

Alpha Chi Sigma Chemistry Fraternity is a professional fraternity which recruits men and women students from chemistry, biochemistry, and related science majors during each fall and spring semester. The fraternity holds weekly meetings and provides tutoring for students in lower-level chemistry courses. The office is in Room 2106A Chemistry Building. Dr. Lyle Isaacs (3341 Chemistry Building, 301-405-1884) is the faculty advisor.

The student affiliate program of the American Chemical Society (SA-ACS) is designed to introduce students in chemistry, biochemistry and related fields to a variety of professional activities. Student affiliates will gain skills and make contacts aimed at launching a successful career in science. Activities include networking and meeting with professionals, attending national meetings, and participating in public outreach programs. Affiliates also receive subscriptions to Chemical & Engineering News, the undergraduate career magazine, in Chemistry, as well as gaining on-line access to announcements regarding job and intern opportunities. The student affiliate office is located in Room 2112A of the Chemistry Building. For more information contact the Faculty Advisor, Dr. Doug English (denglish@wam.umd.edu).

**Scholarships and Financial Assistance**

Two scholarships are available for majors: the Isidore and Annie Adler Scholarship of $500 to an outstanding major with financial need and the Leidy Foundation Scholarships of $600 to two outstanding junior majors. No application is necessary, as all majors are automatically reviewed by the Awards Committee.

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CHEMICAL AND BIOMOLECULAR ENGINEERING (ENCH)

A. James Clark School of Engineering
2113 Chemical and Nuclear Engineering Building, 301-405-1935
www.ench.umd.edu
Chair: F. Joseph Schork
Professors: M. Anisimov, R. Calabrese, K. Choi, S. Greer, F. Schork (Prof & Chair), W. Weigand
Associate Professors: R. Adomaitis, S. Ehrman, N. Wang, E. Zafiriou
Assistant Professors: P. Dimitrakopoulos, S. Raghavan
Adjunct Professors: E. Dimarzio, M. Klapa, J. Quackenbush, R. Wesson, A. Yang
Professors Emeriti: T. McAvoy, T. Regan, J. Sengers

The Major

Students in the Department of Chemical and Biomolecular Engineering at the University of Maryland learn to use a combination of mathematical, physical, chemical, and biological science concepts within a rigorous engineering design framework, graduating with a unique set of skills highly valued by a wide range of employers in industry, academia, and the government. The wide breadth of this profession and the Department's unique strengths in nanotechnology and biotechnology prepare our students for outstanding careers.

Because of the wide range of ultimate applications, the chemical engineer finds interesting and diverse career opportunities in such varied fields as chemical (inorganic and organic), food processing and manufacturing, metallurgical, polymer, energy conversion, environmental engineering, petroleum (refining, production, or petrochemical), and pharmaceutical industries. Additional opportunities are presented by the research and development activities of many public and private research institutes and all government agencies. Our graduates have taken jobs with companies like DuPont, ExxonMobil, Proctor & Gamble, the Food and Drug Administration, and the Department of Defense.

On top of all the options and opportunities, chemical and biomolecular engineers have traditionally ranked at or near the top of starting salaries among all of the engineering professions!

Courses offered by this department may be found under the following acronym: ENCH

Program Objectives

- Provide students with a solid foundation in chemical engineering science fundamentals as well as a broad background in science and mathematics to equip them to enter professional and chemical engineering practice and to enter graduate study at leading universities.

- Prepare students to excel in traditional chemical engineering careers and diverse careers in areas such as biotechnology, nanotechnology, medicine, law or business.

- Produce graduates who are equipped with quantitative problem solving, teamwork, communication skills, and a strong ethical foundation that will serve them throughout their careers.

Program Learning Outcomes
Students are expected to fully engage with the curriculum and the opportunities presented for learning and research. Having completed the degree program, students should have acquired the following knowledge and skills:

- An ability to apply knowledge of chemical engineering fundamentals to identify and solve chemical engineering problems.
- An ability to apply mathematics relevant to engineering and the physical and chemical sciences to identify and solve technical problems.
- A broad knowledge necessary to understand the impact of engineering solutions in a global and societal context.
- An ability to perform step-by-step design of engineered systems and chemical processes.
- An ability to design and conduct experiments, as well as to analyze and interpret data.
- An awareness of safety and environmental issues as an integral part of the chemical engineering profession.
- Skills necessary for employment in a variety of positions in industry or government or for continued study in graduate or professional schools.
- An understanding of current technological issues related to chemical engineering.

**Admission to the Major**

All Chemical Engineering majors must meet admission, progress, and retention standards of the Clark School of Engineering.

Students who wish to study at the Clark School apply for admission to the University of Maryland; there is no separate application for engineering. When filling out the university application, you may choose chemical and biomolecular engineering as your intended major.

**Requirements for the Major**

The curriculum is composed of:

- The required CORE (general education) requirements of College Park.
- The required Engineering core of 37 credits of ENCH courses which include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCH215</td>
<td>Chemical Engineering Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENCH250</td>
<td>Computer Methods in Chemical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENCH300</td>
<td>Chemical Process Thermodynamics</td>
<td>3</td>
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<tr>
<td>ENCH333</td>
<td>Chemical Engineering Seminar</td>
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<td>ENCH400</td>
<td>Chemical Engineering Thermodynamics</td>
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<tr>
<td>ENCH422</td>
<td>Transport Processes I</td>
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<td>ENCH424</td>
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<tr>
<td>ENCH426</td>
<td>Transport Processes III</td>
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<tr>
<td>ENCH437</td>
<td>Chemical Engineering Laboratory</td>
<td>3</td>
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<tr>
<td>ENCH440</td>
<td>Chemical Engineering Kinetics</td>
<td>3</td>
</tr>
<tr>
<td>ENCH442</td>
<td>Chemical Engineering Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENCH444</td>
<td>Process Engineering Economics &amp; Design I</td>
<td>3</td>
</tr>
<tr>
<td>ENCH446</td>
<td>Process Engineering Economics &amp; Design II</td>
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</table>

- Mathematics - four semesters
- Physics - three semester
- Chemistry (lecture/laboratory): one freshmen Chemistry, two Organic Chemistry, two Physical Chemistry

**Minimum Degree Credits:** 128 credits and fulfillment of all Departmental, College, and University requirements with a cumulative grade point average of 2.0
Students must consult with an advisor on selection of appropriate courses for their particular course of study.

Technical Electives Guidelines

Twelve credits of ENCH technical electives are required. It is recommended that they be taken during the senior year. The senior ENCH technical electives are 400-level chemical engineering courses, including ENCH468x, and a limited number of approved 400-level technical courses from outside chemical engineering. Students should select electives with the help of an academic advisor. Normally at least three of the four technical electives should be ENCH4xx; the fourth elective may be chosen from ENCH or from an approved list of non-ENCH technical courses. Business or non-technical courses are normally not approved.

One of the electives must have significant mathematical content, and one of the electives must have significant biological content. Selection of the electives with significant mathematical or biological content is subject to the above constraint that at least three of the four electives are normally ENCH courses.

Upon the approval of the academic advisor and written permission of the Department, a limited number of substitutions may be permitted. Substitutes, including ENCH468 Research (1-3 credits), must fit into an overall plan of study emphasis and ensure that the plan fulfills the accreditation design requirements. Students may elect to specialize in a specific area such as Biological Engineering or Nanotechnology and Macromolecular Science; or they may sample a variety of elective courses. Upon graduation, those who specialize in a particular technical area will receive a letter in recognition of their accomplishment from the Chair and the Director of Undergraduate Studies of the Chemical Engineering Department. A list of technical electives are posted at: www.chbe.umd.edu/undergrad.

Other Requirements for the Major

Sample Undergraduate Program, Chemical and Biomolecular Engineering

<table>
<thead>
<tr>
<th>Freshman Year</th>
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<td>Computer Methods in Chemical Engineering</td>
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<td>Chemical Process Thermodynamics (Thermo I)</td>
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<td>CHEM 482</td>
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<td>Chemical Engineering Thermodynamics (Thermo II)</td>
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<td>ENCH 440</td>
<td>Chemical Engineering Kinetics</td>
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<td>Chemical Engineering Lab</td>
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<td>ENCH 444</td>
<td>Process Engineering Economics &amp; Design I</td>
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**Advising**
All students choosing Chemical Engineering as their primary field must see an undergraduate advisor each semester. Appointments for advising can be made at 2113 Chemical and Nuclear Engineering Building, 301-405-1935.

**Undergraduate Research Experiences**

A unique aspect of the Department's undergraduate program is its high level of student participation in cutting-edge research. Approximately half of our students graduate with significant lab experience and most find it to be one of the high points of their undergraduate education.

**Co-op Programs**

The Chemical Engineering program works within the Clark School of Engineering Cooperative Engineering Education Program. For information on this program consult the Clark School of Engineering entry of this catalog or call 301-405-3863.

**Honors Program**

The A. James Clark School of Engineering hosts a chapter of the Omega Chi Epsilon National Honor Society for chemical engineering, as well as a chapter of the engineering honor society Tau Beta Pi.

**Student Societies and Professional Organizations**

Students operate a campus student chapter of the professional organization, the American Institute of Chemical Engineers. Omega Chi Epsilon is the honorary Chemical Engineering Society

**Scholarships and Financial Assistance**

Financial aid based upon need is available through the Office of Student Financial Aid. A number of scholarships are available through the A. James Clark School of Engineering. The department offers opportunities for research and other part-time employment.

**Awards and Recognition**

Annual awards are given to recognize scholarship and outstanding service to the Department, College and University. These awards include the David Arthur Berman Memorial Award, the Russell Barch Memorial Award, and several American Institute of Chemical Engineers (AICHE) awards. AICHe awards are given to the junior with the highest cumulative GPA as well as to the outstanding junior and outstanding senior in Chemical Engineering.

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Chinese (CHIN)

For information consult the School of Languages, Literatures, and Cultures elsewhere in chapter 7.

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Civil and Environmental Engineering (ENCE)

A. James Clark School of Engineering
1173 Engineering Classroom Building, 301-405-7768
www.cee.umd.edu

Chair: A. Haghani
Assistant Professors: A. Aydilek, C. Cirillo, R. Medina
Affiliate Professors: J. Gansler, B. Golden, E. Kalnay, M. Rath
Affiliate Assistant Professors: K. Clifton

The Major

Civil/Environmental engineering is a people-serving profession, concerned with the planning, design, construction and operation of large, complex systems such as buildings and bridges, water purification and distribution systems, highways, rapid transit and rail systems, ports and harbors, airports, tunnels and underground construction, dams, power generating systems and structural components of aircraft and ships. The profession also includes urban and city planning, prevention and treatment of water and land pollution, and disposal of hazardous wastes and chemicals. The design and construction of these systems are only part of the many challenges and opportunities for civil and environmental engineers today. Recent advances in computers, communications and data management provide new resources that are widely used by professional civil and environmental engineers in providing safe, economical and functional facilities to serve our society.

Courses offered by this department may be found under the acronym ENCE.

Program Objectives

The mission of the Department is threefold:

1. Provide a high quality, challenging education that encompasses breadth and depth; and prepare graduates to be proficient in both analysis and synthesis facets of civil engineering design;

2. Maintain a strong research program that is recognized for excellence in major areas of civil and environmental engineering;

3. Provide service to the University, the civil engineering profession, and the community at large.

The Department provides an educational program of basic and specialized engineering knowledge necessary for its graduates to be proficient in recognized specialties of civil engineering. This preparation provides graduates with the tools needed for successful practice in the period following graduation. In addition to general and technical education, the educational program stresses professional and ethical responsibilities, an awareness of societal issues, and the need for life-long learning.
The Department contributes to the advancement of knowledge through research on important engineering problems. The research results are communicated through recognized channels of knowledge dissemination.

The Department serves the needs of the community by emphasizing global and societal issues. The Department addresses these issues through University and professional channels and contributes to their solutions.

The Department, building upon the above mission, established three program educational objectives:

1. Prepare our graduates for competent professional practice within civil engineering related industries of Maryland and the mid-Atlantic region.

2. Create a cadre of graduates with the breadth of interests and skills to take on challenging new areas of engineering practice.

3. Instill in our graduates a recognition of the importance of continuing professional development.

Program Learning Outcomes

The Department has established twenty program outcomes, which include ABET’s (a) through (k) criteria, plus four additional American Society of Civil Engineers (ASCE) outcomes. The outcomes are listed below, together with Department-specific interpretations, following ASCE.

1. An ability to apply knowledge of mathematics. A technical core of knowledge and breadth of coverage in mathematics, science, and civil engineering, including the fundamentals of several recognized major CE areas: mathematics through differential equations, probability and statistics.


3. An ability to apply knowledge of engineering principles. Mastery of coursework in: engineering economics, mechanics, material properties, systems, and geospatial representation.

4. An ability to use computers to solve engineering problems. Mastery of coursework in information technology.

5. An ability to identify, formulate, and solve engineering problems. The ability to assess situations in order to identify engineering problems, formulate alternatives, and recommend feasible solutions.

6. An ability to design and conduct experiments. In at least one of the major recognized CE areas, should be able to design and conduct field and laboratory studies, gather data, create numerical and other models, and then analyze and interpret the results (e.g., traffic, geotechnical, and water quality investigations).

7. An ability to analyze and interpret data. (See #6).

8. An ability to design a component, system or process to meet desired needs. Critical design methodology and process elements include problem definition, scope, analysis, risk assessment, creativity, synthesizing alternatives, iteration, codes, safety, security and constructability, sustainability, and multiple objectives and various perspectives. Other important design or design procurement elements are bidding versus qualifications-based selection; estimating engineering costs; interaction between planning, design and construction; owner-engineer relationships; and life-cycle assessment. Understanding large-scale systems is important, including the need to integrate information, organizations,
people, processes, and technology. Design experiences should be integrated throughout the professional component of the curriculum.

9. An ability to use the techniques, skills, and tools of modern engineering. This includes the role and use of appropriate information technology, contemporary analysis and design methods, and applicable design codes and standards as practical problem-solving tools to complement knowledge of fundamental concepts. Also included is the ability to select the appropriate tools for solving different types and levels of problems.

10. An ability to write effectively. Effective communication includes listening, observing, reading, speaking, and writing and requires understanding of the fundamentals of interacting effectively with technical and non-technical or lay individuals and audiences in a variety of settings. Our graduates need to be versatile with mathematics, graphics, the worldwide web and other communication tools.

11. An ability to speak effectively. See #10.

12. An ability to function effectively as part of a team. Be able to: lead a design or other team as well as participate as a member of a team; demonstrate an understanding of team formation and evolution, personality profiles, team dynamics, collaboration among diverse disciplines, problem solving, and time management; and be able to foster and integrate diversity of perspectives, knowledge and experience.

13. An understanding of professional and ethical responsibility. Demonstrate an understanding of and a commitment to practice according to the seven Fundamental Canons of Ethics and the associated Guidelines to Practice Under the Fundamental Canons of Ethics.

14. A knowledge of contemporary issues in engineering. Should appreciate the relationship of engineering to critical contemporary issues such as multicultural globalization of engineering practice; raising the quality of life around the globe; the growing diversity of society; and the technical, environmental, societal, political, legal, aesthetic, economic, and financial implications of engineering projects.

15. An understanding of the impact of engineering solutions in a global and societal context. Need to appreciate, from historical and contemporary perspectives, culture, human and organizational behavior, aesthetics and ecology and their impacts on society. Includes history and heritage of the CE profession.

16. An awareness of the need to continually upgrade one’s technical knowledge base and skills. Life-long learning mechanisms available for personal and professional development include additional formal education, continuing education, professional practice experience, active involvement in professional societies, community service, coaching, mentoring, and other learning and growth activities. Personal and professional development can include developing understanding of and competence in goal setting, personal time management, communication, delegation, personality types, networking, leadership, the socio-political process, and effecting change. Professional development can, in addition to the preceding, include career management, increasing discipline knowledge, understanding business fundamentals, contributing to the profession, considering self-employment, achieving licensure and specialty certification, and additional graduate studies.

17. An ability to apply knowledge in a specialized area related to civil engineering. For a professional civil engineer, specialized technical coursework (or the equivalent) is necessary. Examples of specialized technical areas include environmental engineering, structural engineering, construction engineering and management, public works management, transportation engineering and water resources management. Civil engineering specializations in non-traditional, boundary, or emerging fields such as ecological engineering and nanotechnology...
are encouraged.

18. An understanding of the elements of project management, construction, and asset management. Efforts of the professional civil engineer often lead, in the context of projects, to construction of structures, facilities and systems that, in turn, must be operated and maintained. Project management essentials include project manager responsibilities, defining and meeting client requirements, risk assessment and management, stakeholder identification and involvement, contract negotiation, project work plans, scope and deliverables, budget and schedule preparation and monitoring, interaction among engineering and other disciplines, quality assurance and quality control, and dispute resolution processes. Important construction elements are owner-engineer-contractor relationships; project delivery systems (e.g., design-bid-build, design-build); estimating construction costs; bidding by contractors; labor and labor management issues; and construction processes, methods, systems, equipment, planning, scheduling, safety, cost analysis and cost control. Asset management seeks effective and efficient long-term ownership of capital facilities via systematic acquisition, operation, maintenance, preservation, replacement, and disposition. Goals include optimizing life-cycle performance, minimizing life-cycle costs, and achieving maximum stakeholder benefit. Tools and techniques include design innovations, new construction technologies, materials improvements, geomapping, database management, value assessment, performance models, web-based communication, and cost accounting. Including asset management recognizes that civil engineers, during their careers, are likely to be involved with some aspect of capital facilities management.

19. An understanding of business and public policy and administration fundamentals. The professional civil engineer typically functions within both the public and private sectors that requires at least an understanding of business, public policy, and public administration fundamentals. Important business fundamentals topics as typically applied in the private, government and non-profit sectors include legal forms of ownership, organizational structure and design, income statements, balance sheets, decision (engineering) economics, finance, marketing and sales, billable time, overhead, and profit. Essential public policy and administration fundamentals include the political process, public policy, laws and regulations, funding mechanisms, public education and involvement, government-business interaction, and the public service responsibility of professionals.

20. An understanding of the role of the leader and leadership principles and attitudes. Leading, in the private and public arena -- which differs from and complements managing -- requires broad motivation, direction, and communication knowledge and skills. Attitudes generally accepted as being conducive to leadership include commitment, confidence, curiosity, entrepreneurship, high expectations, honesty, integrity, judgment, persistence, positiveness, and sensitivity. Desirable behaviors of leaders, which can be taught and learned, include earning trust, trusting others, formulating and articulating vision, communication, rational thinking, openness, consistency, commitment to organizational values, and discretion with sensitive information.

* Increased exposure to or emphasis on biological systems, ecology, sustainability, nanotechnology, and information technology is expected to occur in the 21st century.

**Admission to the Major**

See the entrance requirements for the A. James Clark School of Engineering in Chapter 6

**Requirements for the Major**

The Department offers a program of study leading to an ABET-accredited Bachelor of Science in Civil Engineering (BSCE) degree. Each student specializes in one of three tracks: Infrastructure Engineering (Structural and Geotechnical), Environmental and Water Resources Engineering, or Transportation Systems and Project Management. A total of 122 credit hours (123 for the Environmental and Water Resources Track) are required for a BSCE degree with emphasis in
basic science (mathematics, chemistry, and physics), engineering science (mechanics of materials, statics, and dynamics), basic civil and environmental engineering courses; required courses in the selected track; technical electives; and a senior capstone design course. The curriculum provides a sensible blend of required courses and electives, permitting students to pursue their interests without the risk of overspecialization.

### Freshman Year (All Civil & Environmental Engineering)

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<td>CHEM135</td>
<td>General Chemistry for Engineers</td>
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<td>Differential Equations for Scientists and Engineers</td>
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<td>PHYS260/261</td>
<td>General Physics II with Lab</td>
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<td>Mechanics of Materials</td>
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<td>ENCE215</td>
<td>Applied Engineering Science</td>
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### Junior Year

#### Infrastructure Engineering Track

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<td>Fundamentals of Engineering Materials</td>
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<td>ENCE301</td>
<td>Geo-Metrics and GIS in Civil Engineering</td>
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<td>ENCE302</td>
<td>Probability and Statistics for Civil &amp; Environmental Engineers</td>
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<td>Fundamentals of Geotechnical Engineering</td>
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<td>Introduction to Structural Analysis</td>
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<td>Engineering Project Management</td>
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<td>ENCE301</td>
<td>Geo-Metrics and GIS in Civil Engineering</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENCE302</td>
<td>Probability and Statistics for Civil &amp; Environmental Engineers</td>
<td>3</td>
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<td>Course Title</td>
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<td>ENCE320</td>
<td>Engineering Project Management</td>
<td>3</td>
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<tr>
<td>ENCE360</td>
<td>Analysis of Civil Engineering Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENCE370</td>
<td>Introduction to Transportation Engineering &amp; Planning</td>
<td>3</td>
<td></td>
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<tr>
<td>ENCE472</td>
<td>Transportation Engineering</td>
<td>3</td>
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<tr>
<td>ENCE Electives*</td>
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<td></td>
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<td>CORE</td>
<td>CORE Program Requirements</td>
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<td><strong>Total</strong></td>
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**Environmental & Water Resources Engineering Track**

<table>
<thead>
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<tbody>
<tr>
<td>ENGL393</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>BSCI105</td>
<td>Principles of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>ENCE300</td>
<td>Fundamentals of Engineering Materials</td>
<td>3</td>
</tr>
<tr>
<td>ENCE301</td>
<td>Geo-Metrics and GIS in Civil Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENCE302</td>
<td>Probability and Statistics for Civil &amp; Environmental Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ENCE310</td>
<td>Introduction to Environmental Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENCE402</td>
<td>Simulation and Design of Experiments for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ENCE431</td>
<td>Hydrologic Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENCE Electives*</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE Program Requirements</td>
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**Senior Year**

**Infrastructure Engineering Track**

<table>
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<tbody>
<tr>
<td>ENCE444</td>
<td>Laboratory Characterization of Geomaterials</td>
<td>3</td>
</tr>
<tr>
<td>ENCE453</td>
<td>Computer-Aided Structural Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ENCE454</td>
<td>Design of Concrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>ENCE441</td>
<td>Foundation Design</td>
<td>3</td>
</tr>
<tr>
<td>ENCE466</td>
<td>Design of Civil Engineering Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENCE Electives*</td>
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<td><strong>Total</strong></td>
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</table>

**Transportation Systems & Engineering Management Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>ENCE402</td>
<td>Simulation and Design of Experiments for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ENCE422</td>
<td>Project Cost Accounting &amp; Economics</td>
<td>3</td>
</tr>
<tr>
<td>ENCE423</td>
<td>Project Planning, Scheduling &amp; Control</td>
<td>3</td>
</tr>
<tr>
<td>ENCE470</td>
<td>Highway Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENCE466</td>
<td>Design of Civil Engineering Systems</td>
<td>3</td>
</tr>
<tr>
<td>ENCE Electives*</td>
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<td><strong>Total</strong></td>
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</table>

**Environmental and Water Resources Engineering Track**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tr>
<td>ENCE411</td>
<td>Environmental Engineering Science</td>
<td>3</td>
</tr>
<tr>
<td>ENCE422</td>
<td>Project Cost Accounting &amp; Economics</td>
<td>3</td>
</tr>
<tr>
<td>ENCE412</td>
<td>Environmental Engineering Unit Operations</td>
<td>3</td>
</tr>
<tr>
<td>ENCE432</td>
<td>Ground Water Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>ENCE466</td>
<td>Design of Civil Engineering Systems</td>
<td>3</td>
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<td>ENCE Electives*</td>
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<td>6</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE Program Requirements</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>
Minimum Degree Requirements: 122 credits (123 for the Environmental and Water Resources Engineering Track) and the fulfillment of all departmental, school, and University requirements with a cumulative grade point average of at least 2.0. Additional semester credits will be involved to the extent that courses carrying more than three credits are selected.

+ENCE 466, Design of Civil Engineering Systems, may only be taken in the semester in which the student graduates.

*ENCE electives are to be selected as follows:
Two electives: one from each of the two tracks in which the student is not specializing; each must be a 300 or 400 level class chosen from among approved courses from that track.

The remaining electives: Any 300 or 400 level ENCE class not required for the student's chosen track; other senior level mathematics, science, and engineering courses, with the approval of the Department.

Advising

Students majoring in civil and environmental engineering are advised by Department faculty and staff, who assist in course selection and scheduling until the semester in which the student completes the basic requirements common to all tracks. At that point, students will be directed to the faculty member who serves as specialty advisor for their track. For advising, contact the Department office, 301-405-7768.

Undergraduate Research Experiences

Department faculty frequently have research opportunities for undergraduate students. Students are encouraged to contact faculty members whose research specialties are of interest.

Fieldwork Opportunities

Several excellent co-op opportunities are available for Civil and Environmental Engineering students. See the A. James Clark School of Engineering entry in chapter 6 of this catalog for a full description of the Engineering co-op program, or contact Ms. Heidi Sauber, 301-405-3863.

Honors Program

See A. James Clark School of Engineering Honors Program.

Student Societies and Professional Organizations

- American Society of Civil Engineers
- Chi Epsilon Civil Engineering Honor Society (by invitation)

Scholarships and Financial Assistance

The Department of Civil and Environmental Engineering awards a number of academic scholarships. These awards are designated primarily for junior and senior students. A department committee evaluates applications each year. See the School of Engineering web site for information and application instructions.

Awards and Recognition

The Department of Civil Engineering offers the following awards: 1) The Civil Engineering Outstanding Senior Award; 2) The ASCE Outstanding Senior Award; 3) The Woodward-Clyde Consultants Award; 4) The Bechtel Award; 5) The Chi Epsilon Outstanding Senior Award; 6) The Ben Dyer Award; 7) The ASCE Maryland Section Award; 8) The Robert L. Morris Award for
Environmental Leadership; and 9) The Department Chairman's Award.

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Undergraduate Catalog 2007-2008

Departments, Majors, and Programs

Classics (CLAS)

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The Major

Program Objectives

Academic Programs and Departmental Facilities

Admission to the Major

Requirements for the Major

Requirements for the Minor

Advising

Student Societies and Professional Organizations

Scholarships and Financial Assistance

Awards and Recognition

Classics (CLAS)

College of Arts and Humanities

2407 Marie Mount Hall, 301-405-2013

www.classics.umd.edu

hlee6@umd.edu (Chair) or shr@umd.edu (UG advisor)

Chair: H. Lee

Professors: L. Doherty, J. Hallett (Distinguished Scholar-Teacher)

Associate Professors: S. Rutledge (Undergraduate Advisor), G. Staley, E. Stehle

Lecturers: C. Matteo, M. Pittas-Herschbach, K. Tuite

Adjunct Associate Professors: J. Scholten

The Major

Courses offered by this department may be found under the following acronym(s): CLAS, LATN, GREK.

Classics is the study of ancient Greek and Roman culture in all its aspects. Greek and Roman culture are the foundations of western culture - its literature, ideas, art, politics, and conceptions of the individual. Greek myth is still a shared fund of images and narratives that expresses human experience. Latin is the major source of English vocabulary, and Greek provides technical language in many fields. Classics explores all of these aspects through over fifteen hundred years of history. It helps us understand the relationship of western culture to other cultural systems and place ourselves better in the world.

Classics is an intellectually rich and versatile liberal arts major which teaches "core skills", including effective communication, critical thinking, and an appreciation of diversity. Because it is so interdisciplinary and holistic, a student of classics gets a three-dimensional view of cultural history and the literary works that are still major forces in the contemporary scene. Studying Athenian democracy and the Roman Republic sharpens understanding of competing philosophical and political ideas. Studying Latin not only develops English vocabulary but makes English grammar comprehensible. Both languages provide excellent analytic training; for instance, classics students score among the top few in the analytic section of the GRE exams.

Classics is a pre-professional major for law school or for graduate school in any aspect of the ancient world. Classics majors have also continued on to library school. Latin teachers are in demand; numerous students have found rewarding jobs teaching secondary school, with continued involvement in the classics community. Others have gone into business, worked in educational television, and gotten jobs in the writing or editing fields, in archival work, in special education, or in social services.

Program Objectives

The program aims to help students to understand and appreciate the Greek and Latin languages and literatures, and their relevance to the modern world.

Academic Programs and Departmental Facilities

The Classics Department offers three Study Abroad courses.

CLAS 171 Classical Myths in Paris (1 credit). Professor Doherty. Ten days at the end of May. This one-week tour of "classical Paris" (taught on location after two days of background lectures in Maryland) will focus on the Roman past of the city, the rich collections of Greek and Roman art in the Louvre, and the influence of classical styles on the art and architecture of France. Mythology will provide a focus for our comparisons of art from different periods. In addition to
the Louvre and the Musée d’Orsay, visits will include walking tours of the Latin Quarter—with its ancient Roman baths and medieval art in the Musée Cluny—and of the Champs Elysées from the Place de la Concorde to the Arc de Triomphe.

**CLAS 308G Classics in Context: Greece: The Living Legacy** (3 credits). Professor Pittas-Herschbach. Three weeks in June. This course is taught on location in Greece. Students will be based in Athens and will also visit Mycenae, Delphi, Epidaurus, the temple of Aphaia in Aigina, Cape Sounion, and Eleusis. Readings and discussions will explore key issues and themes (cultural, artistic, political and philosophical) associated with Athens during the latter half of the fifth century B.C.

**CLAS 308I Italy: Ancient Greek and Roman Culture in Context** (3 credits). Rutledge and Scholten. Three weeks in January. This three-week exploration and study of ancient Greek and Roman Culture takes students to the Bay of Naples area, including ancient Pompeii and Herculaneum, and to Rome. The course also includes visits to Florence and Ravenna.

For the most recent information on the Study Abroad courses, students should consult the website [www.international.umd.edu/studyabroad](http://www.international.umd.edu/studyabroad).

In addition to our own study abroad programs, students may take advantage of other opportunities to study abroad: for example, in Rome, at the Intercollegiate Center for Classical Studies, or in Athens, at the College Year in Athens. Students studying Modern Greek may also spend a semester at the University of Indianapolis in Athens.

**Admission to the Major**

Admission to the major simply requires a meeting with the undergraduate advisor. No prior knowledge of Latin or Greek is required.

**Requirements for the Major**

Requirements for the Classics major include the College of Arts and Humanities requirement of 45 upper-level credits completed.

The College foreign language requirement will be automatically fulfilled in the process of taking language courses in the major.

**Credits**

**Option A: Latin**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>LATN Courses at the 200/300 level</td>
<td>18</td>
</tr>
<tr>
<td>LATN Courses at the 400 level or higher</td>
<td>12</td>
</tr>
<tr>
<td>Supporting courses</td>
<td>9-12</td>
</tr>
</tbody>
</table>

*Any level CLAS, GREK, or related fields such as HIST and ARTH*

**Option B: Greek**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GREK Courses at the 200/300 level</td>
<td>18</td>
</tr>
<tr>
<td>GREK Courses at the 400 level or higher</td>
<td>12</td>
</tr>
<tr>
<td>Supporting courses</td>
<td>9-12</td>
</tr>
</tbody>
</table>

*Any level CLAS, LATN, or related fields such as HIST and ARTH*

**Option C: Latin and Greek**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LATN Latin courses</td>
<td>18</td>
</tr>
</tbody>
</table>
GREEK Greek courses* 12

OR

GREEK Greek courses 18
LATN Latin courses* 12

AND

Supporting Courses 9

For example, CLAS 170, HIST 110, and a 300- or 400-level course in Greek or Roman history

*Students with no previous training in the second language may count introductory level courses as part of the 12-hour requirement.

Option D: Classics in Translation (Classical Humanities)

CLAS Classics courses 18
LATN Latin courses, OR 12
GREK Greek courses

Supporting Courses 12-14

Normally upper level courses in Art History, Archaeology, Architecture, Government, History, Linguistics, or Philosophy

NOTES:

- Students are encouraged to substitute 300- and 400-level courses in LATN and GREK for some of the 18 required credits in CLAS.
- 100 and 200-level courses in GREK may be included among the supporting credits if the student's 12 language credits are taken in Latin, and 100 and 200-level courses in LATN may be included among the supporting credits if the student's 12 language credits are taken in GREK.
- Students are encouraged to take as much language as possible, but should take language courses sequentially; i.e., 101, 102, 201. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit. The student should begin the sequence at the appropriate level.
Requirements for the Minor

Classical Mythology
This minor will introduce students to classical mythology, its uses within ancient Greek and Roman culture, and its subsequent influence on art and literature. The minor requires 15 credits.

Required courses:
CLAS 170 Greek and Roman Mythology (3)
CLAS 470 Approaches to Greek Myth (3)

In addition, the student must choose three courses from the following list, two of which must be at the 300 or 400 level:
CLAS 270 Greek Literature in Translation (3)
CLAS 271 Roman Literature in Translation (3)
CLAS 320 Women in Classical Antiquity (3)
CLAS 330 Ancient Greek Religion: Gods, Myths, Temples (3)
CLAS 340 Ancient Roman Religion: From Jupiter to Jesus (3)
CLAS 370 Classical Myths in America (3)
CLAS 374 Greek Tragedy in Translation (3)
CLAS 419 The Classical Tradition (3)

Students interested in pursuing this minor should consult with the Undergraduate Advisor in the Department of Classics.

Latin
This minor introduces students to the Latin language and enables them to read, in Latin, important works of Latin literature. For students with no prior experience of Latin, the minor requires 21 credits, consisting of the following courses:
Latin 101 Elementary Latin I (4)
Latin 102 Elementary Latin II (4)
Latin 201 Intermediate Latin (4)
Latin 3xx A reading course in Plautus, Petronius, Ovid or Horace and Catullus (3)
Latin 4xx A reading course in a major Latin author (3)

Students who enter with advanced standing in Latin can complete the minor by taking a total of five courses in Latin at the 200 level and beyond. Students interested in pursuing this minor should consult with the Undergraduate Advisor in the Department of Classics.

Greek
This minor introduces students to ancient Greek and enables them to read, in Greek, important works of Greek literature. This minor requires 21 credits, consisting of the following courses:
Greek 101 Elementary Ancient Greek I (4)
Greek 102 Elementary Ancient Greek II (4)
Greek 201 Intermediate Ancient Greek (4)
Greek 301 Scenes from Athenian Life (3)
Greek 4xx Either Greek Philosophers, Greek Tragedy, or Homer (3)

A Classics course at the 300 or 400 level such as CLAS 374 (Greek Tragedy) or CLAS 330 (Greek Religion) (3)

Students interested in pursuing this minor should consult with the Undergraduate Advisor in the Department of Classics.

Advising

Departmental advising is mandatory for all majors every semester.

Student Societies and Professional Organizations

The Classics Department sponsors a chapter of Eta Sigma Phi, the national undergraduate Honor Society in Classics. Students who achieve a grade of B or better in an upper level language course are eligible. Initiation takes place in the middle of the spring semester.
Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

The Classics Department annually awards the Avery Prize to a Latin student of special merit, and the Steyer Undergraduate Scholarship to an outstanding classics concentrator. To honor the memory of Sylvia Gerber, who taught Latin for many years in the Washington, DC public schools, her son Louis has recently provided the department with funding to support the training of Latin teachers and Latin pedagogical studies, including an undergraduate award for an aspiring Latin teacher.

Awards and Recognition

Outstanding students are invited to join Eta Sigma Phi, the national undergraduate Honor Society in Classics. The department also annually awards the Avery Prize, and the Steyer and Gerber Scholarships (see above).

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Communication (COMM)

College of Arts and Humanities
2130 Skinner Building, 301-405-6519
www.comm.umd.edu

Chair: E. Fink
Director: L. Waks (Director, Senior Lecturer)
Professors: J. Klumpp, E. Toth, A. Wolvin
Associate Professors: L. Aldoory, D. Cai, R. Gaines, S. Parry-Giles, T. Parry-Giles, M. Tonn
Lecturers: b. Altschul (Lecturer), L. Corrigan (Lecturer), S. Drake (Lecturer), L. Rhoden (Lecturer), J. Tenney (Lecturer), R. Toth (Lecturer)
Affiliate Professors: J. Fahnestock (ENGL), M. Gurevitch (JOUR), A. Kruglanski (PSYC), D. Rosenfelt (WMST)
Affiliate Associate Professors: M. Gelfand (PSYC), S. McDaniel (KNES)
Adjunct Associate Professors: A. Nicotera (Adjunct Assoc Prof)
Adjunct Assistant Professors: S. Sun
Professors Emeriti: J. Grunig, L. Grunig
Visiting Faculty: N. Ofulue (Visit Asst Prof, Lecturer), D. Tell (Visit Asst Prof)

The Major

Communication takes as its subject matter the history, processes, and effects of human communication through speech and its extensions. The departmental curriculum is designed to provide a liberal education in the arts and sciences of human communication as well as preparation for career opportunities in business, government, education, law, and related fields. Students pursue academic programs that emphasize many disciplinary areas, including intercultural communication, political communication, public relations, negotiation and conflict management, cognition and persuasion, rhetorical theory, risk communication, history of rhetoric, and criticism of public discourse. Departmental advising is mandatory for new majors, second semester sophomores, and seniors.

Program Learning Outcomes

Upon completion of the degree program in Communication, students should be able to demonstrate the following knowledge and skills:

1. An ability to distinguish among a variety of theoretical approaches in the communication discipline and use them appropriately and effectively in academic work.

2. An ability to conduct research and write research reports employing social scientific and/or humanistic approaches in the communication discipline.

3. An ability to argue clearly and effectively in a speech.

Academic Programs and Departmental Facilities

The Center for Political Communication and Civic Leadership unites research, education, and public engagement to foster democratic communication by a diverse people. See www.comm.center.umd.edu.

The Center for Risk Communication Research (CRCR) advances dialogue and understanding about communication’s role in controlling and preventing risk; about how publics perceive risk communication; and about the political, economic and social contexts for risk communication.
Scholars associated with the CRCR examine health, food safety, security, and environmental risks. See www.comm.riskcenter.umd.edu.

The department’s Media Center is designed to provide one-on-one tutoring and instructional support to further students’ oral communication skills and confidence. The Media Center is equipped with cameras and recording equipment to tape speeches and presentations for practice and critique.

**Admission to the Major**

**First-time Freshman**

All first-time freshmen who designate communication as a major prior to the end of the final exam period of their first semester will be admitted directly to the program. They must sign a Memorandum of Understanding that states that they understand that by the semester in which they attain 45 University of Maryland credits (excluding AP), they must meet the following Gateway requirements.

a. Complete 50% of the CORE requirements, including Fundamental Studies requirements in Mathematics and English.

b. Complete one of the following courses with a grade of C or better: BMGT230, CCJS200, EDMS451, PSYC200, SOCY201, or equivalent.

c. Complete COMM107, COMM 200, or COMM230 with a grade of C or better

d. Complete COMM250 with a grade of C or better and

e. A GPA of 2.0 or better

Students may repeat only one of the Gateway courses and that may be repeated only once in their attempt to meet the requirements. Students who fail to meet the Gateway requirements by the semester in which they attain 45 credits will be dismissed from the program and cannot reapply.

**Transfer Students**

Internal and external transfer students who meet the Gateway requirements specified above and have a cumulative GPA of 2.7 in all college-level coursework may apply to the program up until and including the semester in which they reach 60 credits. (Students are encouraged to apply at any time prior to reaching 60 credits as long as the requirements have been completed.)

For those students who meet the Gateway requirements and who apply after the semester in which they reach 60 credits, admission is competitive and on a space-available basis.

Newly admitted transfer students who have more than 60 credits have only their first semester at the University of Maryland to complete the Gateway requirements.

**Appeals**

All students may appeal admission decisions. Students directly admitted as freshmen, who are dismissed because of failure to meet Gateway requirements or be in good academic standing at 45 credits, may appeal directly to the Undergraduate Director in the Department of Communication. All other students who are denied admission may appeal to the university’s Office of Undergraduate Admissions.

**Requirements for the Major**

The course of study for a Communication major must satisfy all of the following requirements.
COMM107 Oral Communication: Principles and Practices, **OR** 3
COMM200 Critical Thinking and Speaking, **OR** 3
COMM230 Argumentation and Debate 3
COMM250 Introduction to Communication Inquiry 3
COMM400 Research Methods in Communication 3
COMM401 Interpreting Strategic Discourse 3

Completion of one of the following tracks:

**Social Influence Track**
COMM402 Communication Theory and Process 3
*Five from:*
COMM420 Theories of Group Discussion 15
COMM424 Communication in Complex Organizations
COMM425 Negotiation and Conflict Management
COMM426 Conflict Management
COMM435 Theories of Interpersonal Communication
COMM470 Listening
COMM475 Persuasion
COMM477 Discourse Analysis
COMM482 Intercultural Communications
COMM COMM Elective
COMM UL Upper Level COMM Elective
*One Statistical Analysis from:*
PSYC200 Statistical Methods in Psychology 3-4
SOCY201 Introductory Statistics for Sociology
BMGT230 Business Statistics
EDMS451 Introduction to Educational Statistics
(or an equivalent course - see advisor)
*One Structural Analysis of Language from:*
LING200 Introductory Linguistics 3
HESP120 Introduction to Linguistics
ANTH380 Culture and Discourse
(or an equivalent course - see advisor)

**Communication Studies Track**
COMM402 Communication Theory and Process 3
*One from:*
COMM420 Theories of Group Discussion 3
COMM424 Communication in Complex Organizations
COMM425 Negotiation and Conflict Management
COMM426 Conflict Management
COMM435 Theories of Interpersonal Communication
COMM470 Listening
COMM475 Persuasion
COMM477 Discourse Analysis
COMM482 Intercultural Communications
*One from:*
COMM330 Argumentation and Public Policy
COMM360 The Rhetoric of Black America
COMM450 Ancient and Medieval Rhetorical Theory
COMM451 Renaissance & Modern Rhetoric Theory
COMM453 The Power of Discourse in American Life
COMM455 Speechwriting
COMM460 Public Life in American Communities, 1634-1900
COMM461  Voices of Public Leadership in the Twentieth Century
COMM469  The Discourse of Social Movements
COMM471  Public Communication Campaigns
COMM476  Language, Communication, and Action
COMM      COMM Elective
COMM300/400 Upper Level COMM Electives 12

One Statistical Analysis from: 3-4

PSYC200  Statistical Methods in Psychology
SOCY201  Introductory Statistics for Sociology
BMGT230  Business Statistics
EDMS451  Introduction to Educational Statistics
(or an equivalent course - see advisor)

One Structural Analysis of Language from: 3

LING200  Introductory Linguistics
HESP120  Introduction to Linguistics
ANTH380  Culture and Discourse
(or an equivalent course - see advisor)

Communications Studies 9
courses related to Communication Studies in one department other than COMM

Public Relations Track

COMM231  News Writing and Reporting for Public Relations 3
COMM232  News Editing for Public Relations 3
COMM350  Public Relations Theory 3
COMM351  Public Relations Techniques 3
COMM352  Specialized Writing in Public Relations 3
COMM386  Experiential Learning* 3-6
* only 3 credits apply to major

COMM483  Senior Seminar in Public Relations 3
COMM300/400 Upper Level COMM Elective 3

One Statistical Analysis from: 3

PSYC200  Statistical Methods in Psychology 3
SOCY201  Introductory Statistics for Sociology 4
BMGT230  Business Statistics 3
EDMS451  Introduction to Educational Statistics 3
(or an equivalent course - see advisor)

One Economics from: 4

ECON200  Principles of Micro-Economics 4
ECON201  Principles of Macro-Economics 4
courses related to Public Relations in one department other than COMM or JOUR 9

Rhetoric and Political Culture Track

COMM450  Ancient and Medieval Rhetorical Theory 3

Five from:

COMM330  Argumentation and Public Policy 3
COMM360  The Rhetoric of Black America 3
COMM451  Renaissance & Modern Rhetoric Theory 3
COMM453  The Power of Discourse in American Life 3
COMM455  Speechwriting 3
COMM460  Public Life in American Communities, 1634-1900 3
COMM461  Voices of Public Leadership in the Twentieth Century 3
COMM469  The Discourse of Social Movements 3
COMM471  Public Communication Campaigns 3
COMM476  Language, Communication, and Action 3
COMM      COMM Elective 3
COMM300/400 Upper Level COMM Elective 3

One Critical Analysis of Discourse from: 3

AMST432  Literature and American Society 3
CMLT488 Genres 3
ENGL453 Literary Theory 3
JWST263 Hebrew Bible: Poetry and Prophecy 3
PHIL233 Philosophy in Literature 3

*One Structural Analysis of Language from:*

LING200 Introductory Linguistics 3
HESP120 Introduction to Linguistics 3
ANTH380 *Culture and Discourse* 3

or an equivalent course - see advisor
courses related to Rhetoric and Political Culture in one department other than COMM

Notes:

- Because the department's curriculum changes over time, the department's Undergraduate Director may approve other appropriate Communication courses to meet the requirements for each track.
- Courses required for the Communication major, but taken outside COMM, may be used to satisfy CORE requirements.
- Only 3 credits of COMM386 may apply toward the major.

Advising

Advising is available throughout the year in 2101D Skinner Building. Students should check Testudo for their registration date and for any mandatory advising blocks. Advising questions can be sent to commadvising@umd.edu or you may call 301-405-0862 or 301-405-0863.

Undergraduate Research Experiences

Research experiences include assisting on faculty research projects, participating in special team research projects, and working with the department's Center for Political Communication and Civic Leadership and Center for Risk Communication Research.

Fieldwork Opportunities

The department offers service learning opportunities training local school students in critical thinking and speaking, mediation and conflict resolution, and leadership.

Internships

The department's internship program helps communication majors gain professional experience, build a professional portfolio, and take the first steps toward a career. The department structures its internship program around a course, COMM386: *Experiential Learning*, offered each school term.

Honors Program

The Honors Program provides students with an opportunity for intensive study of Communication. The program provides participants with opportunities to deepen their understanding of the discipline through graduate-level coursework and to enrich this understanding through closely supervised research and involvement in the intellectual life of the department.

Students interested in the Honors Program apply for the program, ordinarily during the second semester of the sophomore year or the first semester of the junior year. Application is filed with the Undergraduate Director. Students should have the following qualifications:
- An overall GPA of 3.3 or above.
- Completion of nine semester hours in Communication including COMM 250.
- GPA of 3.5 or above in Communication.

**Student Societies and Professional Organizations**

Social and academic activities are available to students by participating in the following student organizations: the Undergraduate Communication Association, the Lambda Pi Eta Honor Society, and the Maryland chapter of the Public Relations Student Society of America.

**Scholarships and Financial Assistance**

The department offers the June Dowler Buteau Scholarship to students who exhibit academic excellence. Each year the department distributes a call for applications through e-mail.
Comparative Literature Program (CMLT)

College of Arts and Humanities
2107 Susquehanna Hall, 301-405-2853
Director: G. Hamilton (Acting)
Professors: M. Collins (English), J. Fuegi, R. Harrison (Spanish & Portuguese)
Associate Professors: O. Wang (English)
Instructors: E. Robinson

The Major

Courses offered by this department may be found under the following acronym: CMLT

Return to top
Computer Engineering (ENCP)

A. James Clark School of Engineering
2429 A.V. Williams Building, 301-405-3685
www.ece.umd.edu
eceadvis@deans.umd.edu
Chair: P. O'Shea (Professor)

Professors: E. Abed, A. Agrawala, T. Antonsen, J. Baras, D. Barbe, A. Barg, S. Bhattacharyya, G. Blankenship (Associate Chair, External Relations), R. Chellappa (Distinguished Scholar Teacher), N. De Claris, M. Dagenais, C. Davis (Distinguished Scholar Teacher, W. Destler (Distinguished Scholar Teacher), A. Ephremides, N. Farvardin, V. Gilgor, J. Goldhar, N. Goldsman, R. Gomez, V. Granatstein, J. Hendler, P. Ho, A. Iliadis, J. JaJa, P. Krishnaprasad, W. Lawson (Associate Chair, Undergraduate Studies), W. Levine, K. Liu (Associate Chair, Graduate Studies, Distinguished Scholar Teacher), A. Makowski, S. Marcus (Distinguished Scholar Teacher), I. Mayergoyz (Distinguished Scholar Teacher), J. Melngailis, H. Milchberg (Distinguished Scholar Teacher), K. Nakajima, P. Narayan, R. Newcomb, Y. Oruc, E. Ott (Distinguished University Professor), M. Peckerar, H. Rabin, S. Shamma, M. Shayman, A. Tits, U. Vishkin, C. Yang


Assistant Professors: P. Abshire, S. Bhattacharjee, M. Hicks, J. Katz, N. Martins, T. Murphy, P. Petrov, K. Rosfjord, J. Simon, A. Srivastava, E. Waks


The Major

The computer engineering major combines the strengths of both the Department of Electrical and Computer Engineering and the Department of Computer Science to prepare students for careers in the computer industry. The program encompasses the study of hardware, software, and systems questions that arise in the design, development, and application of computers and embedded systems. Specifically, computer engineering students will have a knowledge of hardware systems (electrical networks, electronics, and VLSI); a knowledge of software systems (algorithms, data structures, and operating systems); and a knowledge of how these two domains interact (digital logic, signal and system theory, computer architectural and performance analysis). Computer Engineering students will learn about everything that goes into digital and computing systems, from solid state physics to CMOS VLSI design, to computer architecture to programming, and from operating systems to compiler and language theory.

Program Objectives

The educational objectives are broadly stated goals agreed upon by a consensus of the faculty pertaining to accomplishments or level of achievement desired of our students 3-5 years after graduation. These fall under the following four headings:

1. Technical Knowledge: Graduate engineers trained in the fundamentals of computer engineering and relevant specialties so they are prepared to succeed in graduate school or be productive engineers in government or industry.

2. Laboratory, Design, and Research: Graduate engineers who can design and perform experimental projects to solve diverse problems, with special emphasis on exploiting diverse technical knowledge and skills so they can engage in design work or research.
3. Preparation for Further Study: Graduate engineers who have the educational foundations and skills necessary to engage in lifelong learning in every sphere of their life.

4. Professionalism: Graduate engineers who have the professional skills they need to succeed in their chosen profession and are prepared to fulfill their professional responsibilities as engineers, which include their ethical obligations to society, employers, employees, and fellow engineers.

**Program Learning Outcomes**

**Educational Opportunities**

The program offers many educational opportunities. Most of these are designed to impart knowledge and skills required of all our students so that by the time of graduation they are prepared to achieve the Educational Objectives. Other opportunities are optional and offered for interested and qualified students. The educational opportunities are:

1. Broad Foundation: Understanding of and ability to apply relevant mathematical, scientific, and basic engineering knowledge.

2. Disciplinary Foundation: Understanding of and ability to apply core computer engineering technical knowledge.

3. Specialization: Understanding of and ability to apply the skills and concepts within one or more of the specializations within computer engineering.

4. Laboratory: Understanding of and ability to employ standard experimental techniques to generate and analyze data as well as use state-of-the-art software and instrumentation to solve computer engineering problems.

5. Design: Theoretical understanding of and ability to engage in the creative design process through the integration and application of diverse technical knowledge and expertise to meet customer needs and address social issues.

6. Research: Ability to formulate and answer empirical and theoretical questions through participation in undergraduate research projects for interested and qualified students.

7. Leadership: Awareness of the need for engineering leaders both within the profession and the larger community, as well as some preparation to assume those leadership roles.

8. Communication Skills: Ability to communicate effectively both through oral presentations and the written word.

9. Interpersonal Skills: Ability to interact professionally with others in the workplace, to engage effectively in teamwork, and to function productively on multidisciplinary group projects.

10. Engineering Ethics: Understanding of the engineer's responsibilities to employers, society, and their fellow engineers as well as an ability to recognize potential and actual ethical problems, analyze critically those situations, and formulate sound ethical decisions.

11. Engineering & Society: Understanding of the symbiotic relationship between engineering and society - specifically, how engineering artifacts are shaped by and incorporate human values as well as the ways in which engineering solutions impact society - and the larger social obligations this entails for engineers.

12. Life-long Learning: Skills necessary to engage in life-long learning and an
understanding of the need to continually exploit those skills in refining and updating one’s knowledge base.

**Admission to the Major**

Admission requirements are the same as those of other departments in the School of Engineering. See Admission Requirements for A. James Clark School of Engineering in Chapter 6.

**Requirements for the Major**

As in all engineering degrees, the student starts out with a core curriculum in mathematics and basic science. Subsequent years of study involve courses covering a balanced mixture of hardware, software, hardware-software trade-offs, and basic modeling techniques used to represent the computing process. Courses covering algorithms, data structures, digital systems, computer organization and architecture, software and hardware design and testing, operating systems, and programming languages will be included. Elective courses must include electrical engineering and computer science courses and technical courses outside the departments. *Students must earn a grade of 'C' or higher in all engineering, mathematics, and science courses as well as the prerequisites for these courses.* A sample program is shown below.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Freshman Year</th>
<th>Credits</th>
<th>Sophomore Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>First Sem</strong></td>
<td><strong>Second Sem</strong></td>
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</tr>
<tr>
<td>CORE**</td>
<td>CORE General Education</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CHEM135</td>
<td>General Chemistry for Engineers</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS161</td>
<td>General Physics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH140/141</td>
<td>Calculus I / Calculus II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CMSC132*</td>
<td>Object Oriented Programming II</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ENES100</td>
<td>Intro. to Engineering Design</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>13</strong></td>
<td><strong>14</strong></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>CORE**</td>
<td>CORE General Education</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CMSC330</td>
<td>Organization of Prog. Languages</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CMSC412</td>
<td>Operating Systems</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>ENEE303</td>
<td>Analog and Digital Electronics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENEE307</td>
<td>Electronics Circuits Design Lab</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>ENEE322</td>
<td>Signal and System Theory</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENEE324</td>
<td>Engineering Probability</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENEE350</td>
<td>Computer Organization</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENEE446</td>
<td>Computer Design</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
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**Senior Year**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE**</td>
<td>CORE General Education</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Computer Engineering Technical Electives</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>ENGL393</td>
<td>Technical Writing</td>
<td>3</td>
<td></td>
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<tr>
<td><strong>Total Credits</strong></td>
<td></td>
<td><strong>15</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

* Students may need to take CMSC 131, Object Oriented Programming I, or the computer science exemption exam before taking CMSC 132.

** Note: This sample schedule assumes at least one of the CORE Distributive Studies classes also satisfies the CORE Cultural Diversity requirement. See the GENERAL EDUCATION REQUIREMENTS (CORE) for details about CORE program requirements.

**Technical Elective Requirements**

Effective Spring 2001, all BSCP graduates must distribute their 24 credits of technical electives among the following...
course categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Mathematics and Basic Science Electives</td>
<td>minimum of 6</td>
</tr>
<tr>
<td>B</td>
<td>Computer Science Theory and Applications</td>
<td>minimum of 3</td>
</tr>
<tr>
<td>C</td>
<td>Electrical Engineering Theory and Applications</td>
<td>minimum of 3</td>
</tr>
<tr>
<td>D</td>
<td>Advanced Laboratory</td>
<td>minimum of 2</td>
</tr>
<tr>
<td>E</td>
<td>Capstone Design</td>
<td>minimum of 3</td>
</tr>
<tr>
<td>F</td>
<td>Engineering (not Electrical or Computer)</td>
<td>3</td>
</tr>
</tbody>
</table>

Please read carefully, and make a note of the following special cases and other items:

1. Two credits of ENEE 499, Senior Projects in Electrical and Computer Engineering, may be used to satisfy the Advanced Laboratory requirement subject to approval by the faculty supervisor and the Associate Chair. The maximum number of ENEE 499 credits that may be applied towards EE technical elective requirements is five.

2. Additional Capstone Design courses can be used as substitutes for the required Electrical Engineering Theory and Applications course, and/or the required Advanced Laboratory course, provided one of the following is completed: ENEE 408A, 408B, 408C, or 408F.

3. Completion of ENEE 408A and ENEE 459A satisfies both the Capstone Design and Advanced Laboratory requirements.

4. If you have any questions on how these requirements affect your current selection of technical electives, please contact an advisor.

Advising

In addition to the Associate Chair and the Director and Associate Director of Undergraduate Studies, faculty in Computer Engineering function as undergraduate advisors. Departmental approval is required for registration in all upper-division courses in the major. The department’s Undergraduate Office (2429 A.V. Williams Building, 301-405-3685) is the contact point for undergraduate advising questions.

Co-op Programs

Participation in the Cooperative Education Program is encouraged. See A. James Clark School of Engineering entry for details.

Honors Program

The Electrical and Computer Engineering Honors Program is intended to provide a more challenging and rewarding undergraduate experience for students pursuing the baccalaureate in Electrical or Computer Engineering. The program requires students to complete honors versions of four junior level electrical engineering courses and an honors project during the senior year. Students completing all program requirements with a B average (3.0 on a 4.0 scale) and a cumulative GPA of 3.0 for all undergraduate work will have their participation noted on their B.S. diploma.

Student Societies and Professional Organizations

There is an active Student Chapter of the Institute of Electrical and Electronics Engineers (IEEE). Information and membership applications are available in the Electrical and Computer
Engineering undergraduate lounge, 0107 Glenn L. Martin Hall. Equally active is the chapter of Eta Kappa Nu, the nationwide Electrical Engineering honorary society. Information on eligibility can be obtained in the HKN lounge, 1154 Engineering Laboratory Building.

**Scholarships and Financial Assistance**

Several corporate scholarships are administered through the Department. All students must complete the College of Engineering's online scholarship application each year to be considered for all College of Engineering and Electrical and Computer Engineering Departmental scholarships. For information visit [www.ursp.umd.edu/scholarships/index.html](http://www.ursp.umd.edu/scholarships/index.html).

**Job Opportunities**

Computer Engineers have wide ranging employment opportunities in both industry and government. Some of the specific jobs that students of computer engineering might acquire are: computer designer, application specialist, embedded system designer, interfacing and telecommunication designer, data logging and control, industrial systems design, hardware design, biomedical device design, real-time software design and development, instrumentation analysis and control, computer-integrated manufacturing.

**Research Labs**

The Department of Electrical and Computer Engineering is affiliated with more than 40 specialized laboratories, supporting activities including: speech and image processing, high performance systems, mobile computing and multimedia, communication networks, robotics, control systems, neural systems, systems integration, VLSI design and testing, experimental software engineering, semiconductor materials and devices, photonics, fiber optics, ion beam lithography, real-time systems, human-computer interaction, and virtual reality.

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Computer Science (CMSC)

College of Computer, Mathematical and Physical Sciences
1119 A.V. Williams Building, 301-405-2672
www.cs.umd.edu
ugrad@cs.umd.edu
Chair: L. Davis
Assistant Professors: A. Deshpande, R. Duraiswami, J. Foster, L. Getoor, F. Guimbretiere, M. Hicks, J. Katz, A. Memon, M. Pop, V. Sazawal, N. Spring
Instructors: E. Golub, J. Plane
Lecturers: F. Emad, L. Herman, M. Hugue, N. Padua-Perez
Professors Emeriti: Y. Chu, L. Kanal, R. Miller, J. Minker

The Major

Computer science is the study of computers and computational systems: their theory, design, development and application. Principal areas within computer science include artificial intelligence, computer systems, database systems, human factors, numerical analysis, programming languages, software engineering, and theory of computing. A computer scientist is concerned with problem solving. Problems range from abstract determinations of what problems can be solved with computers and the complexity of the algorithms that solve them to practical matters (design of computer systems which are easy for people to use). Computer scientists build computational models of systems including physical phenomena (weather forecasting), human behavior (expert systems, robotics), and computer systems themselves (performance evaluation). Such models often require extensive numeric or symbolic computation.

Requirements for the Major

The course of study for a Computer Science major must include all of the following requirements:

1. A grade of C or better in each of the following courses:

   a. CMSC 131 or a score of 5 on A version of the JAVA Advanced Placement exam or a score of 4 or 5 on the AB version of the JAVA Advanced Placement exam or an acceptable score on the appropriate Department exemption examination, which is to be taken at the time of entry into the program.

   b. CMSC 132 or acceptable score on the Java Advanced Placement examination or acceptable score on the appropriate Department exemption examination, which is to be taken at the time of entry into the program.

   c. CMSC 212 or acceptable score on the appropriate Department exemption examination, which is to be taken at the time of entry into the program.
d. CMSC 250 or acceptable score on the appropriate Department exemption examination, which is to be taken at the time of entry into the program.

e. At least 27 credit hours at the 300-400 levels. These must include CMSC 311, CMSC 330, CMSC 351, and at least 15 credit hours from the following CMSC courses with no more than two courses from a single category:

   Computer Systems: Up to two of 411, 412, 414, 417
   Information Processing: 420, one of 421 or 424 or 426 or 427
   Software Engineering/Programming Languages: Up to two of 430, 433, 434, 435
   Algorithms and Computation Theory: 451, one of 452 or 456
   Numerical Analysis*: One of 460 or 466.

   **Note:** Courses in Numerical Analysis require MATH 240 and 241 as additional prerequisites. Students without either of these prerequisites must choose their 15 credit hours from the remaining courses in the other four areas.

2. MATH 140 and 141. A STAT course which has MATH 141 (or a more advanced mathematics course) as a prerequisite, and one other MATH, STAT, or AMSC course which has MATH 141 (or a more advanced mathematics course as a prerequisite. A grade of C or better must be earned in each of the courses. No course that is cross-listed as CMSC may be counted in this requirement.

3. A minimum of 12 additional credit hours of 300-400 level courses in one discipline outside of computer science with an average grade of C or better. No course that is cross-listed as CMSC may be counted in this requirement. **Note:** The following general guidelines should be observed when selecting courses for this upper level supporting sequence:

   a. Courses must have all the same four-letter acronym

   b. Each course should be a minimum of 3 credits.

   c. Only 1 special topics or independent study course (such as courses numbered 498 or 499) may be used.

   Any variations must be approved by the Undergraduate Program Director. No course used to fulfill another requirement (other than CORE Advanced Studies) can be counted in this requirement.

**Requirements for the Minor**

The purpose of the minor in Computer Science is not only to give students a strong foundation in, and understanding of, algorithmic reasoning, problem solving methods involving computers and computation, and a solid base to help students adapt to future changes in technology, but to complement and enhance any student's major program of study. The computer science minor may be earned by students not majoring in computer science and computer engineering. A grade of C or better must be earned in all courses required for the minor. See www.cs.umd.edu/Ugrad/current/MinorReqs.shtml for detailed information. The award of a Minor will be noted on the student's transcript at the time of graduation.

**Advising**

Computer science majors may obtain advising at room 1119 A.V. Williams Building. Interested students should call 301-405-2672 to receive further information about the program. Additional
information can be found at www.cs.umd.edu/Ugrad. Students who have been away more than two years may find that due to curriculum changes, the courses they have taken may no longer be adequate preparation for the courses required to complete the major. Students in this situation must meet with the Department Advisor to make appropriate plans.

**Honors Program**

A departmental honors program provides an opportunity for outstanding undergraduates to take graduate-level courses or to begin scholarly research in independent study with a faculty member. Students are accepted into the program after their sophomore year based on their academic performance. Additionally, the department has a chapter of Upsilon Pi Epsilon which is an international honor society to recognize excellence in computer science education.

**Scholarships and Financial Assistance**

Students may find employment as tutors, as undergraduate teaching assistants, or as members of the department's laboratory staff. Professors may also have funds to hire undergraduates to assist in research. Many students also participate in internship or cooperative education programs, working in the computer industry for a semester during their junior or senior years.

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Counseling & Personnel Services (EDCP)

College of Education
3214 Benjamin Building, 301-405-2858
www.education.umd.edu/EDCP
Chair: R. Fassinger, Professor & Interim Chair
Assistant Professors: A. Amado, K. Inkelas, K. MacDonald-Wilson, N. Mitchell, P. Phillips
Affiliate Professors: J. Hutchinson, W. Sedlacek
Affiliate Associate Professors: L. Clement, B. Jacoby, F. Westbrook
Professors Emeriti: J. Birk, R. Byrne, D. Hershenson, G. Marx, P. Powers, D. Pumroy

The Major

The Department of Counseling and Personnel Services offers programs of preparation at the master's degree, advanced graduate specialist, and doctoral degree levels for counselors in elementary and secondary schools, rehabilitation agencies, business and industry, and college and university counseling centers. Additional graduate programs of preparation are provided for college student personnel administrators and school psychologists. The department also offers a joint doctoral program with the Department of Psychology in counseling psychology.

While the department does not have an undergraduate major, it does offer a number of courses which are open to undergraduates and are suggested for students considering graduate work in counseling or other human service fields. Specific courses in peer counseling, leadership, and diversity are provided.
Criminology & Criminal Justice (CCJS)

College of Behavioral and Social Sciences
2220 LeFrak Hall, 301-405-4699
www.ccjs.umd.edu

The mission of the Department of Criminal Justice & Criminology is to provide a supportive academic and professional environment for faculty and students. The Department promotes study and teaching concerning crime and delinquency and their prevention and control. The University of Maryland's Department of Criminology and Criminal Justice is a national and international leader in research and criminal justice education, and its Graduate Program is ranked number one in the field. Courses offered by this department may be found under the following acronym: CCJS.

Program Learning Outcomes

Having completed the CCJS degree program, students should have acquired the following knowledge and skills:

1. Students will demonstrate basic knowledge of major criminology and criminal justice content areas.
2. Students will demonstrate a basic knowledge of descriptive and inferential statistics appropriate to the social sciences.
3. Students will demonstrate competence in basic social science research methods.

Requirements for the Major

The major in Criminology & Criminal Justice comprises 30 hours of coursework in criminology and criminal justice. Eighteen (18) hours of supporting sequence selected from a list of social and behavioral science courses are required (list is available in the CCJS advising office and on the department website). No grade lower than a C- may be used toward the major. An average grade of C is required in the supporting sequence. Nine (9) hours of the supporting sequence must be at the 300/400 level. In addition, MATH111 or higher (MATH220, MATH140 or STAT100, but not MATH113 or MATH115) and CCJS200 (or an approved course in social statistics) must be completed with a grade of 'C' or better. A grade of 'C' or better is required in MATH111 as a prerequisite to CCJS200.

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CCJS100 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CCJS105 Criminalology</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Law in</td>
<td></td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CCJS230</td>
<td>Action</td>
<td>3</td>
</tr>
<tr>
<td>CCJS300</td>
<td>Criminological and Criminal Justice Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>CCJS340</td>
<td>Enforcement Administration</td>
<td>3</td>
</tr>
<tr>
<td>CCJS350</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>CCJS ELECT</td>
<td>CCJS Electives (3 courses)</td>
<td>9</td>
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<tr>
<td></td>
<td>One from:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crime and Delinquency Prevention</td>
<td>3</td>
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<tr>
<td>CCJS451</td>
<td>Treatment of Criminals and Delinquents</td>
<td>3</td>
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<tr>
<td>CCJS452</td>
<td>Contemporary Criminological Theory</td>
<td>3</td>
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<td>CCJS454</td>
<td>Total credits</td>
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**Supporting Sequence**

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>SUPPORT</td>
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<tr>
<td>SUPPORT UL</td>
<td>Upper level courses from approved list (3 courses)</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>One from:</td>
<td></td>
</tr>
<tr>
<td>MATH111</td>
<td>Introduction to Probability</td>
<td>3-4</td>
</tr>
<tr>
<td>MATH220</td>
<td>Elementary Calculus I</td>
<td>3-4</td>
</tr>
<tr>
<td>MATH140</td>
<td>Calculus I Elementary</td>
<td>3-4</td>
</tr>
<tr>
<td>STAT100</td>
<td>Statistics and Probability</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>One from:</td>
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</tr>
<tr>
<td>CCJS200</td>
<td>Statistics for Criminology and Criminal Justice</td>
<td>3-4</td>
</tr>
<tr>
<td>ECON321</td>
<td>Economic Statistics</td>
<td>3-4</td>
</tr>
<tr>
<td>PSYC200</td>
<td>Statistical Methods in Psychology</td>
<td>3-4</td>
</tr>
<tr>
<td>SOCY201</td>
<td>Introductory Statistics for Sociology</td>
<td>3-4</td>
</tr>
<tr>
<td>BMGT230</td>
<td>Business Statistics</td>
<td>3-4</td>
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**Total credits - Major and Supporting**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Electives for CCJS Majors</td>
<td>(most courses are 3 credits)</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CCJS234</td>
<td>Law of Criminal Investigation</td>
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<td>CCJS310</td>
<td>Criminal</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>-------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>CCJS320</td>
<td>Investigations Introduction to Criminalistics</td>
<td></td>
</tr>
<tr>
<td>CCJS330</td>
<td>Contemporary Criminological Issues</td>
<td></td>
</tr>
<tr>
<td>CCJS331</td>
<td>Contemporary Legal Policy Issues</td>
<td></td>
</tr>
<tr>
<td>CCJS332</td>
<td>Major Transitions: From Undergraduate to Professional</td>
<td></td>
</tr>
<tr>
<td>CCJS352</td>
<td>Drugs and Crime</td>
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<tr>
<td>CCJS357</td>
<td>Industrial and Retail Security Administration</td>
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<tr>
<td>CCJS359</td>
<td>Field Training in Criminology and Corrections</td>
<td></td>
</tr>
<tr>
<td>CCJS360</td>
<td>Victimology</td>
<td></td>
</tr>
<tr>
<td>CCJS370</td>
<td>Race, Crime and Criminal Justice</td>
<td></td>
</tr>
<tr>
<td>CCJS386</td>
<td>Experiential Learning</td>
<td></td>
</tr>
<tr>
<td>CCJS388H</td>
<td>Independent Reading Course in Criminology and Criminal Justice - Honors</td>
<td></td>
</tr>
<tr>
<td>CCJS389H</td>
<td>Independent Research in Criminology and Criminal Justice - Honors</td>
<td></td>
</tr>
<tr>
<td>CCJS398</td>
<td>Law Enforcement and Field Training Independent Study</td>
<td></td>
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<tr>
<td>CCJS399</td>
<td>in Criminology and Criminal Justice</td>
<td></td>
</tr>
<tr>
<td>CCJS400</td>
<td>Criminal Courts</td>
<td></td>
</tr>
<tr>
<td>CCJS432</td>
<td>Law of Corrections Advanced Law Enforcement Administration</td>
<td></td>
</tr>
<tr>
<td>CCJS444</td>
<td>Crime and Delinquency Prevention</td>
<td></td>
</tr>
<tr>
<td>CCJS451</td>
<td>Treatment of Criminals and Delinquents</td>
<td></td>
</tr>
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<td>CCJS452</td>
<td>White Collar and Organized Crime Contemporary Criminological Theory</td>
<td></td>
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<tr>
<td>CCJS453</td>
<td>Dynamics of Planned Change in Criminal Justice I</td>
<td></td>
</tr>
<tr>
<td>CCJS455</td>
<td>Dynamics of Planned Change in Criminal Justice II</td>
<td></td>
</tr>
<tr>
<td>CCJS456</td>
<td>Comparative</td>
<td></td>
</tr>
<tr>
<td>CCJS457</td>
<td>Criminology and Criminal Justice Psychology of Criminal Behavior</td>
<td></td>
</tr>
<tr>
<td>CCJS461</td>
<td>Special Problems</td>
<td></td>
</tr>
</tbody>
</table>
Other Requirements for the Major

The CCJS Department enforces all prerequisites and does not oversubscribe students to courses that are closed.

Advising

All majors are strongly encouraged to see an advisor at least once each semester. Call 301-405-4729 or email advising@crim.umd.edu. Students must obtain department permission from CCJS Advising to enroll in most CCJS classes to determine completion of prerequisites.

Internships

Requirements for Internship Placements

The internship must be a learning experience involving work in a criminal justice or criminological setting. Interns are expected to gain valuable information which will add to their overall understanding of the field of criminology and criminal justice. Internship positions must center around the gaining of new material over the course of the semester and are expected to involve some degree of ongoing training/learning for the intern. Internship placements are subject to the approval of the Internship Director.

Internship Eligibility

Interns must meet the following criteria:

- Interns must be CCJS majors
- Interns must have completed a minimum of 56 credits at the time of application
- Interns must have a cumulative GPA of at least 2.5 at the time of application
- Interns must work 40 hours per credit over the course of the semester
- A maximum of 6 internship credits per semester and a total of 12 internship credits overall will be permitted.
- Internship credit will not be approved for current or previously held jobs.

Interns must register themselves for the internship prior to the end of the semester's schedule adjustment period. Obtaining Departmental approval for the internship does NOT register the student for the class. Additional information about internships can be picked up from the CCJS advising office in 2201 LeFrak Hall or on line at www.ccjs.umd.edu/Undergrad/index.asp.

Honors Program

The Departmental Honors Program provides superior students the opportunity for advanced study in both a seminar format and independent study under the direction of the faculty. Requirements for admission to include:

1. A cumulative GPA of at least 3.25
2. A GPA in CCJS courses of no less than 3.4
3. At least 9 completed credits in CCJS at the time of application; and
4. Evidence of satisfactory writing

Meeting these requirements does not guarantee admission - only the top twenty-five applicants will be admitted into the program each year. The application deadline for the 2008-2009 academic year is July 1, 2008. Applications received after this date may be accepted at the discretion of the Honors Director.

The Honors Program is a three-semester (9 required credit hours) sequence, which a student begins in the fall semester of his or her junior year. CCJS 388H is the first course in the sequence, and will only be offered in the fall semester. During the senior year, students must first complete CCJS 389H, along with a graduate course in the CCJS Department. CCJS 389H, which is offered in the fall semester, is a writing intensive course during which the student will complete a thesis/research proposal. The final paper will be 25-40 pages in length and must be orally defended. Students may complete the graduate course during the Fall or Spring semester. Honors students may count their honors courses toward satisfaction of their major curriculum requirements.

Applications are available from the CCJS Advising Office.

Should you have any questions, please contact the director of the Honors Program, Dr. Jean M. McGloin at 301.405.3007 or jmcgloin@crim.umd.edu.

Student Societies and Professional Organizations

There are two Student Societies available for membership for CCJS majors: the Criminal Justice Student Association (CJSA) and Alpha Phi Sigma Honor Society (APS).

The Criminal Justice Student Association (CJSA) is dedicated to supplementing our members' academic experience by providing extracurricular opportunities to further explore critical issues involving criminology and criminal justice. Through a regular program of speakers, agency demonstrations, community service projects and an annual career fair, the CJSA provides students with valuable information for making decisions about career choices, further graduate level study, and law school. The CJSA provides students with opportunities for academic and social interaction, and access to criminology and criminal justice researchers, teachers, and practitioners representing a variety of government, academic and commercial corporate and non-profit organizations. All graduate and undergraduate students, regardless of major, are eligible for membership in the CJSA. CJSA meetings and programs are held at least monthly during the Fall and Spring semesters. CJSA does not assess membership dues or fees.

Alpha Phi Sigma (APS) is a National Criminal Justice Honor Society founded 1942 and membership is open to CCJS majors who have completed at least 40 total credits with at least 12 credits in CCJS courses. Undergraduate Applicants must have an overall GPA of at least a 3.2 and a major GPA of at least 3.4. Graduate student applicants must have a 3.4 overall GPA. Applicants must fill out an application, submit an official or unofficial transcript, and a check (personal check is fine) made out to Alpha Phi Sigma for $55. The local chapter's name is Omega Iota. Put the completed application, check, and transcript in Dr. Brooks' mailbox inside 2220 Lefrak Hall. Applications are processed throughout the academic year. You will be notified when you have been officially accepted. Applications are available from the CCJS Advising Office in 2103 Lefrak Hall.

Awards and Recognition

Each semester the department selects the outstanding graduating senior for the Peter J. Lejins award.

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Curriculum and Instruction - Elementary Education (EDCI)

College of Education
2311 Benjamin Building, 301-405-3324
www.education.umd.edu/EDCI
Chair: S. Koziol
Associate Professors: P. Campbell, M. Chambliss, D. Chazan, A. Graeber (Assoc Chair), J. McCaleb, J. O'Flahavan, W. Slater, L. Valli
Affiliate Professors: E. Redish
Affiliate Associate Professors: S. Benson, R. Lavine

The Major

The Department of Curriculum and Instruction offers an undergraduate curricula in elementary education that leads to the Bachelor of Science. Graduates of the Elementary Education program are prepared to teach grades 1 through 6.

Graduates of the Elementary Education program meet the requirements for certification in Maryland and additional states who are affiliated with the Interstate Reciprocity Agreement through the Maryland State Department of Education.

Program Learning Outcomes

1. **Content Knowledge**: Elementary Education teacher candidates have in-depth knowledge of the subject matter that they teach as described in professional (Association for Childhood Education International, ACEI), state (MSDE), and institutional standards.

2. **Pedagogical and Professional Knowledge, Skills, and Dispositions**: Elementary Education teacher candidates can effectively plan classroom-based instruction or activities for their roles as teachers. Candidates' knowledge, skills, and dispositions are applied effectively in practice.

3. **Professional Dispositions**: Elementary Education teacher candidates are able to work with students, families, and communities in ways that reflect the dispositions expected of professional educators as delineated in professional (ACEI), state (MSDE), and institutional standards.

Admission to the Major

Admission to the Teacher Education Professional Program is competitive. Admission procedures and criteria are explained in the College of Education entry in Chapter 6.

Requirements for the Major

All Teacher Education Programs have designated pre-professional courses and a specified sequence of professional courses. Before students may enroll in courses identified as part of the professional sequence, they must complete the selective admission requirements and be fully admitted to the College of Education 's Teacher Education Program. An overall grade point average of 2.5 must be maintained after admission to Teacher Education. All teacher candidates are required to obtain
satisfactory evaluations on the College of Education Technical Standards and to attain qualifying scores for the State of Maryland on the Praxis I and Praxis II assessments. Praxis I is required for admission, and Praxis II is required for student teaching and graduation. Student teaching is a yearlong internship, which takes place in a Collaborating School.

### The Gateway Requirements for entrance into the Elementary Teacher Education program include:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO SCI</td>
<td>Biological science/lab</td>
<td>4</td>
</tr>
<tr>
<td>PHY SCI</td>
<td>Physical science/lab</td>
<td>4</td>
</tr>
<tr>
<td>MATH212</td>
<td>Numbers and Operations Elements of</td>
<td>3</td>
</tr>
<tr>
<td>MATH213</td>
<td>Geometry and Measurement</td>
<td>3</td>
</tr>
<tr>
<td>EDCI280</td>
<td>Introduction to Teaching*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>*minimum grade, B</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** The 14-16 credits of math and science must be completed with a GPA of 2.7.

### Courses which double count with CORE

Courses which may satisfy the university's general education requirements (CORE) and which are required in the Elementary Education program of studies follow:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST156</td>
<td>Social and Political History</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI</td>
<td>Biological Science/Lab</td>
<td>4</td>
</tr>
<tr>
<td>PHY SCI</td>
<td>Physical Science/Lab</td>
<td>4</td>
</tr>
<tr>
<td>SOC SCI</td>
<td>Social Science Recommended social science course options: Introduction to Geography American Government Psychology Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

### Other Pre-Professional
## Requirements:

- **EDCI301**: Teaching Art in the Elementary School, **OR**
- **ARTT100**: Two Dimensional Art Fundamentals, **OR**
- **ARTT110**: Elements of Drawing Literature for Children and Youth Elements of Probability and Statistics Fundamentals for the Classroom Teacher Sociological Social Psychology, **OR**
- **PSYC221**: Social Psychology
- **MATH214**: Elements of Probability and Statistics
- **MUED155**: Fundamentals for the Classroom Teacher
- **EDCI443**: Literature for Children and Youth
- **EDMS410**: Classroom Assessment
- **EDPL301**: Foundations of Education, **OR**
- **EDPL201**: Education in Contemporary American Society, **OR**
- **EDPL210**: Historical and Philosophical Perspectives on Education
- **EDHD411**: Child Growth and Development Language Development and Reading Acquisition Area of Emphasis chosen from the following areas: Communication, Foreign Language, Literature, Mathematics, Science, and Social Studies**

**The EDCI Advising Office has detailed information regarding each area of emphasis. All pre-professional course work must be completed with a C or better.**

## Professional Education Courses:

- **EDCI397**: Principles and Methods of Teaching in Elementary Schools
- **EDCI385**: Computers for Teachers Materials for Creating Skilled
Advising

Advising is mandatory for all students. Students receive advising through individual appointments or walk-in hours during the early registration period. Information regarding advising schedules is available each semester. Walk-in advising hours are also posted each semester. Check in the department office, 1207 Benjamin Building.

Internships

The yearlong internship, which is the culminating experience in the teacher preparation program, takes place in a collaborating school (i.e., partner school, PDS -- Professional Development School).

Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu

NOTES:
- All pre-professional and professional courses must be completed with a grade of C or better.
- All courses must be completed before the year-long internship unless an exception has been approved by the EDCI Advising Office.
- A passing score on Praxis II is required before enrollment in student teaching.
Curriculum and Instruction - Secondary Education (EDCI)

College of Education
2311 Benjamin Building, 301-405-3324
www.education.umd.edu/EDCI
Chair: S. Koziol
Associate Professors: P. Campbell, M. Chambliss, D. Chazan, A. Graeber (Assoc Chair), J. McCaleb, J. O'Flahavan, W. Slater, L. Valli
Affiliate Professors: E. Redish
Affiliate Associate Professors: S. Benson, R. Lavine

The Major

The Department of Curriculum and Instruction offers an undergraduate curricula in secondary education that leads to the Bachelor of Science or Bachelor of Arts degree and prepares teachers in various subject areas for teaching in middle schools and secondary schools, grades 7-12.

The Department has multiple pathways for students who are interested in teaching at the secondary level:

The Dual Major option, which is designed for incoming freshmen or sophomores, leads to the Bachelor's degree with a major in an academic content area plus a second major in secondary education. All secondary majors are required to have an academic content major which satisfies the requirements of the academic department and meets the standards for teacher certification. Candidates who follow the proposed sequencing of courses can complete both majors in four years with careful advisement and scheduling.

The Department of Curriculum and Instruction also offers a five-year integrated master's with certification program. See www.education.umd.edu/EDCI/info/tcert.htm

Graduates of the Secondary Education programs meet the requirements for certification in Maryland and additional states that are affiliated with the Interstate Reciprocity Agreement through the Maryland State Department of Education.

Program Learning Outcomes

1. Content Knowledge: Teacher candidates have in-depth knowledge of the subject matter that they teach as described in professional, state, and institutional standards. They demonstrate their knowledge through inquiry, critical analysis, and synthesis of the subject.

2. Pedagogical and Professional Knowledge, Skills, and Dispositions: Teacher candidates can effectively plan classroom-based instruction or activities for their roles as teachers. Candidates' knowledge, skills, and dispositions are applied effectively in practice.

3. Professional Dispositions: Teacher candidates are able to work with students, families, and communities in ways that reflect the dispositions expected of professional educators as
Academic Programs and Departmental Facilities

Besides the double major program, the department offers a Five-Year Integrated Master's with Certification Program. This program, which is intended for content majors entering the junior or senior year, is for talented students with a minimum GPA of 3.0 who seek to combine undergraduate studies in the content area and professional education as a foundation for a focused professional year at the graduate level leading to secondary-level certification in the subject field and the Master's of Education degree. As undergraduates, admitted students complete their baccalaureate degrees with a major in the relevant content area and a minimum of 12 credits in professional education studies related to teacher certification requirements. In their fifth year, they enroll in a full-year internship and complete graduate-level professional studies that make them eligible for teacher certification and the master's of education degree.

Information about this secondary education program option is available at www.education.umd.edu/EDCI/info/tcert.

Admission to the Major

Admission to the Teacher Education Professional Program is competitive. Admission procedures and criteria are explained in the College of Education entry in Chapter 6.

Requirements for the Major

All Teacher Education Programs have designated pre-professional courses and a specified sequence of professional courses. Before students may enroll in courses identified as part of the professional sequence, they must complete the selective admission requirements and be fully admitted to the College of Education's Teacher Education Program. An overall grade point average of 2.5 must be maintained after admission to Teacher Education. All teacher candidates are required to obtain satisfactory evaluations on the College of Education Technical Standards and to attain qualifying scores for the State of Maryland on the Praxis I and Praxis II assessments. Praxis I is required for admission, and Praxis II is required for student teaching and graduation. Student teaching is a yearlong internship, which takes place in a Collaborating School (i.e., partner school, PDS - Professional Development School).

The Department offers a variety of secondary education programs leading to the Bachelor of Science and Bachelor of Arts degrees. Students who complete a secondary education program at UM meet the Maryland State Department of Education requirements for the Professional Eligibility Certificate. Consult the Department of Curriculum and Instruction for updated information.

Foreign-Language Requirement, Bachelor of Arts Degree

Language proficiency may be demonstrated in one of several ways:

(a) Successful completion of level 4 in one language. Students must provide a high school transcript to verify exemption.

(b) Successful completion of an intermediate-level college foreign language course designated by the department.

(c) Successful completion of a language placement examination in one of the campus language departments offering such examinations.

Students who have native proficiency in a language other than English should see their content area advisor.

Art Education (pre K-12)

The Art Education curriculum is designed to prepare students to teach art in elementary
through secondary schools. It provides prospective art teachers with a knowledge base about the theories and best practices relevant to effective pedagogy, as well as current education and art education goals and standards. Students admitted to Art Education complete the Bachelor of Arts and are required to have an academic content major.

For more information on the sequence of pre-professional and professional courses, consult the College of Education, Department of Curriculum and Instruction's advising office.

### Credits

#### Pre-Professional/Subject Area Courses

*Note: Course Sequencing is under review.*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ARTT150</td>
<td>Introduction to Art Theory</td>
<td>3</td>
</tr>
<tr>
<td>ARTT100</td>
<td>Elements of Two Dimensional Form &amp; Space</td>
<td>3</td>
</tr>
<tr>
<td>ARTT110</td>
<td>Elements of Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ARTH200</td>
<td>Art of the Western World to 1300</td>
<td>3</td>
</tr>
<tr>
<td>ARTH201</td>
<td>Art of the Western World after 1300</td>
<td>3</td>
</tr>
<tr>
<td>ARTT200</td>
<td>Three-Dimensional Art Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>ARTT210</td>
<td>Elements of Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ARTT320</td>
<td>Elements of Painting</td>
<td>3</td>
</tr>
<tr>
<td>ARTT418</td>
<td>Drawing</td>
<td>3</td>
</tr>
<tr>
<td>ARTT428</td>
<td>Painting</td>
<td>3</td>
</tr>
<tr>
<td>EDCI407</td>
<td>Practicum in Art Education: Three Dimensional</td>
<td>3</td>
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<td></td>
<td><em>(Spring only)</em></td>
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<tr>
<td>ARTHxx</td>
<td>300-400 level ARTH</td>
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<tr>
<td>ARTT340</td>
<td>Elements of Printmaking: Intaglio</td>
<td>3</td>
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<tr>
<td>ARTT341</td>
<td>Elements of Printmaking: Woodcut and Relief</td>
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</tr>
<tr>
<td>ARTT342</td>
<td>Elements of Printmaking: Collagraphy</td>
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</tr>
<tr>
<td>ARTT343</td>
<td>Elements of Printmaking: Screen Printing</td>
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</tr>
<tr>
<td>ARTT344</td>
<td>Elements of Printmaking: Lithography</td>
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</tr>
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</table>

#### Pre-Professional/Education Courses

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>EDHD413</td>
<td>Adolescent Development</td>
<td>3</td>
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<tr>
<td>EDHD426</td>
<td>Cognition &amp; Motivation in Reading: Reading in</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Content Areas I</td>
<td></td>
</tr>
<tr>
<td>EDCI463</td>
<td>Reading in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>One from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDPL301</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDPL201</td>
<td>Education in Contemporary American Society</td>
<td></td>
</tr>
<tr>
<td>EDPL210</td>
<td>Historical and Philosophical Perspectives on</td>
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<tr>
<td></td>
<td>Education</td>
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</table>

#### Professional Education Courses

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDCI405</td>
<td>Art Education Methods I <em>(Spring only)</em></td>
<td>3</td>
</tr>
<tr>
<td>EDCI373</td>
<td>Practicum in Ceramics <em>(Spring only)</em></td>
<td>3</td>
</tr>
<tr>
<td>EDSP470</td>
<td>Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDCI403</td>
<td>Teaching Art Criticism and Aesthetics <em>(Fall only)</em></td>
<td>3</td>
</tr>
<tr>
<td>EDCI400</td>
<td>Field Experience in Art Education <em>(Fall only)</em>, AND</td>
<td>1</td>
</tr>
<tr>
<td>EDCI423</td>
<td>Art Education Methods II <em>(Fall only)</em></td>
<td>3</td>
</tr>
<tr>
<td>EDCI406</td>
<td>Technology and Two-Dimensional Art <em>(Fall only)</em></td>
<td>3</td>
</tr>
<tr>
<td>EDCI401</td>
<td>Student Teaching in Elementary School: Art</td>
<td>6</td>
</tr>
<tr>
<td>EDCI402</td>
<td>Student Teaching in Secondary Schools: Art</td>
<td>6</td>
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<tr>
<td>EDCI474</td>
<td>Inclusion, Diversity and Professionalism in</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Secondary Education</td>
<td></td>
</tr>
</tbody>
</table>
Selected Topics in Teacher Education (Student Teaching Seminar, Art)

English Education (Grades 7-12)

Students who complete the English Education curriculum receive the Bachelor of Arts degree and meet the MSDE requirements for the Professional Eligibility Certificate. Students admitted to English Education are required to have an academic content major and must complete the following program requirements. Please check with the ENGL department regarding specific coursework.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDCI488</td>
<td>Selected Topics in Teacher Education</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(Student Teaching Seminar, Art)</td>
<td></td>
</tr>
</tbody>
</table>

Pre-Professional/Subject Area Courses

FRGN LANG

Foreign Language

(Intermediate mastery of a modern or classical language is required.)

ENGL280
Introduction to English Language

ENGL301
Critical Methods in the Study of Literature

ENGL428
Seminar in Language and Literature

One from:

COMM107
Oral Communication: Principles and Practices

COMM125
Introduction to Interpersonal Communication

COMM220
Small Group Discussion

One from:

COMM230
Argumentation and Debate

COMM330
Argumentation and Public Policy

COMM383
Urban Communication

COMM402
Communication Theory and Process

One from:

ENGL101*
Introduction to Writing

ENGL101H*
Honors Composition

One from:

Credits

8
3
3
3
3
3
3
3
3
3
<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL201</td>
<td>Western World Literature, Homer to the Renaissance</td>
</tr>
<tr>
<td>ENGL202</td>
<td>Western World Literature, Renaissance to the Present</td>
</tr>
<tr>
<td>ENGL304</td>
<td>The Major Works of Shakespeare</td>
</tr>
<tr>
<td>ENGL403</td>
<td>Shakespeare: The Early Works</td>
</tr>
<tr>
<td>ENGL404</td>
<td>Shakespeare: The Later Works</td>
</tr>
<tr>
<td>ENGL384</td>
<td>Concepts of Grammar</td>
</tr>
<tr>
<td>ENGL383</td>
<td>The Uses of Language</td>
</tr>
<tr>
<td>ENGL385</td>
<td>English Semantics</td>
</tr>
<tr>
<td>ENGL482</td>
<td>History of the English Language</td>
</tr>
<tr>
<td>ENGL483</td>
<td>American English</td>
</tr>
<tr>
<td>ENGL484</td>
<td>Advanced English Grammar</td>
</tr>
<tr>
<td>ENGL486</td>
<td>Introduction to Old English</td>
</tr>
<tr>
<td>ENGL489</td>
<td>Special Topics in English Language</td>
</tr>
<tr>
<td>ENGL391</td>
<td>Advanced Composition</td>
</tr>
<tr>
<td>ENGL393</td>
<td>English Technical Writing</td>
</tr>
<tr>
<td>ENGL493</td>
<td>Advanced Expository Writing</td>
</tr>
<tr>
<td>ENGL487</td>
<td>Foundations of Rhetoric</td>
</tr>
<tr>
<td>COMM360</td>
<td>The Rhetoric of Black America</td>
</tr>
<tr>
<td>COMM401</td>
<td>Interpreting Strategic Discourse</td>
</tr>
<tr>
<td>COMM453</td>
<td>The Power of Discourse in American Life</td>
</tr>
</tbody>
</table>

One from: 3

**British and American Literature:**

one upper-level course in each of five out of the following six areas to be taken during the sophomore and
junior years; one of these five courses must be in American Literature (15 credits total)
1-Medieval Literature
2-Renaissance Literature other than Shakespeare
3-Restoration or 18th Century Literature
4-19th Century British Literature
5-American Literature before 1900
6-20th Century British or American Literature

Elective:
ENGL Elective Women or Minority course

*If exempt from ENGL101, majors are required to take ENGL291 Intermediate Writing or ENGL294 Introduction to Creative Writing.

Pre-Professional/Education Courses
EDHD413 Adolescent Development 3
EDHD426 Cognition & Motivation in Reading: Reading in Content Areas I 3
EDCI463 Reading in the Secondary School 3
One from:
EDPL301 Foundations of Education 3
EDPL201 Contemporary American Society
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDPL210</td>
<td>Historical and Philosophical Perspectives on Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI466</td>
<td>Professional Education Courses</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Literature for Adolescents (Spring only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI467</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teaching Writing (Fall only, Senior Year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI416</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>English, Speech, Theater (Fall only, Junior Year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI417*</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDCI417 Bases for English Language Instruction (Fall only, Senior Year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI447*</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDCI447 Field Experience in English Teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI440**</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDCI440 Student Teaching Seminar in Secondary Education: English</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI441**</td>
<td></td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EDCI441 Student Teaching in Secondary Schools: English</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inclusion, Diversity and Professionalism in Secondary Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI474</td>
<td></td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

*EDCI417 and EDCI447 taken concurrently
**EDCI440 and EDCI441 taken concurrently

For more information on the sequence of pre-professional and professional courses, consult the College of Education, Department of Curriculum and Instruction (Room 1207, Benjamin).

**Foreign Language Education (Grades 7-12)**
The Foreign Language (FL) Education curriculum is designed for prospective foreign language teachers in grades 7-12 who have been admitted to the EDCI Teacher Education Program. Currently, admission is open to qualified students seeking teacher certification in Spanish, French, Russian, Italian, and German. Other languages might be added later for teacher certification. Students enrolled in foreign language education are required to have an academic content major. Consult with an advisor in the Department of Curriculum and Instruction for further information.

A minimum of six hours of intermediate-level language course work in the student’s major language must precede the required 300-400 level courses. The latter are comprised of a minimum of 30 hours of prescribed course work that includes the areas of reading strategies, grammar and composition, conversation, literature, civilization and culture, and linguistics. Students must also take a minimum of nine hours (three courses) of electives in a related area. The second area of concentration must be approved by a FL advisor.

The following requirements must be met with the FL Education program:

<table>
<thead>
<tr>
<th>Pre-Professional/Subject Area Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary FL Area Intermediate (200 level) courses</td>
<td>6</td>
</tr>
<tr>
<td>Primary FL Area Reading Strategies</td>
<td>3</td>
</tr>
<tr>
<td>Primary FL Area Grammar and Composition (300-400 levels)</td>
<td>6</td>
</tr>
<tr>
<td>Primary FL Area Survey of Literature (300-400 levels)</td>
<td>6</td>
</tr>
<tr>
<td>Primary FL Area Conversation (300-400 levels)</td>
<td>3</td>
</tr>
<tr>
<td>Primary FL Area Literature (400-above levels)</td>
<td>6</td>
</tr>
<tr>
<td>Primary FL Area Culture and Civilization</td>
<td>6</td>
</tr>
<tr>
<td>Primary FL Area Applied Linguistics, OR</td>
<td>3</td>
</tr>
<tr>
<td>LING200* Introductory Linguistics</td>
<td></td>
</tr>
<tr>
<td>ELECTIVES Electives in Supporting Area/FL-Related Courses (minimum of three courses)</td>
<td>9</td>
</tr>
</tbody>
</table>

*Applied Linguistics in the Primary FL Area if available; otherwise LING200 FL Phonetics may satisfy this requirement; check with your advisor.

In almost all instances, Primary FL Area courses must have been completed prior to the Student Teaching semester. Any substitutions for the above must be pre-approved by a FL Education Advisor.

Note: The pre-professional courses vary by subject area. Consult the academic department for the specific course requirements for each language area.

<table>
<thead>
<tr>
<th>Pre-Professional/Education Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDHD413 Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>EDHD426 Cognition &amp; Motivation in Reading: Reading in Content Areas I</td>
<td>3</td>
</tr>
<tr>
<td>EDCI463 Reading in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>EDCI433 Introduction to Foreign Language Methods (Fall only)</td>
<td>3</td>
</tr>
<tr>
<td>EDCI438 Field Experience in Second Language Education (Fall only)</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: One from the following courses:

EDPL301 Foundations of Education
EDPL201 Education in Contemporary American Society
EDPL210 Historical and Philosophical Perspectives on Education

Professional Education Courses

EDCI410 Curriculum and Instruction in Secondary Education: Foreign Language (Fall only) | 3 |
EDCI433 Introduction to Foreign Language Methods (Fall only) | 3 |
EDCI438 Field Experience in Second Language Education (Fall only) | 1 |
Mathematics Education (Grades 7-12)

Students who wish to be certified to teach mathematics at the secondary level and who have not yet been accepted into the College of Education must complete the requirements for the Mathematics Major - Secondary Education Track. Please check with the mathematics department for specific math courses to be taken.

Pre-Professional/Education Courses

EDHD413 Adolescent Development 3
EDHD426 Cognition & Motivation in Reading: Reading in Content Areas I 3
EDCI463 Reading in the Secondary School 3

One from:

EDPL301 EDPL 301 Foundations of Education 3
EDPL201 Education in Contemporary American Society 3
EDPL210 Historical and Philosophical Perspectives on Education 3

Professional Education Courses

EDCI457 Teaching and Learning Middle School Mathematics (Fall only, Junior Year) 3
EDCI455 Methods of Teaching Mathematics in Secondary Schools (Fall only, Senior Year) 3
EDCI355 Field Experience in Secondary Mathematics Education (Fall only, Senior Year) 1
EDCI450 Student Teaching Seminar in Secondary Education: Mathematics 1
EDCI488 Selected Topics in Teacher Education (Student Teaching: Mathematics) 12
EDCI474 Inclusion, Diversity, and Professionalism in Secondary Education 2

Science Education (Grades 7-12)

Please check with the science department regarding specific course work.

Students may earn credentials in biology, chemistry, geology, or physics. All students admitted to the secondary program in science education must complete a major in their area of specialization. Students should consult the respective departments for requirements. For more information, please see www.education.umd.edu/science.

Pre-Professional Education Courses

EDHD426 Cognition & Motivation in Reading: Reading in Content Areas I 3
EDHD413 Adolescent Development 3
EDCI463 Reading in the Secondary School 3

Credits
Social Studies Education (Grades 7-12)

Students in the Social Studies Education program may select an area of concentration in history, geography, or government and politics. Each concentration follows the general requirements of their respective majors in addition to the pre-professional/subject area supporting course work required for certification. Students may elect to complete the program for certification in Social Studies by choosing one of three options for completing the program.

Option I: History
This option requires completion of the foreign language requirement and is primarily for those students earning their initial degree. Requires 68 semester hours of which 39 credit hours must be in history.

Note: The history major requires completion of UNIV 101 and a foreign language requirement through the intermediate level. See ARHU advisor for details.

Pre-Professional/Subject Area Courses

Introductory Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST156</td>
<td>History of the United States to 1865 (CORE: SH)</td>
<td>3</td>
</tr>
<tr>
<td>HIST157</td>
<td>History of the United States since 1865 (CORE: SH)</td>
<td>3</td>
</tr>
<tr>
<td>HIST100/200</td>
<td>Non-US, prior to 1500 (see advisor for approved courses)</td>
<td>3</td>
</tr>
<tr>
<td>HIST208</td>
<td>Historical Research and Methods Seminar</td>
<td>3</td>
</tr>
<tr>
<td>HIST408</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

History Electives

Out of a total 24 credits:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST</td>
<td>18 credits must be at the junior/senior level</td>
<td></td>
</tr>
<tr>
<td>HIST</td>
<td>15 credits must be in a concentration</td>
<td></td>
</tr>
<tr>
<td>HIST</td>
<td>1 course must be non-Western</td>
<td></td>
</tr>
</tbody>
</table>

In addition to the required credit hours in history, the social studies education program requires 29 credit hours of course work in geography and the social sciences as outlined below:
Option II: Geography

This option is primarily for those students earning their initial degree. Requires sixty credit hours of Pre-professional/Subject Area course work. Thirty-five credit hours must be in geography. Nine credit hours of 300 level Gateway courses must be taken in physical geography, human geography, and geographic techniques. The remaining 18 credit hours must include a quantitative methods course and 15 credit hours of upper level systematic geography courses.

Credits
Pre-Professional/Subject Area Courses

Primary Courses:
- GEOG201 Geography of Environmental Systems (CORE: PL) 3
- GEOG211 Geography of Environmental Systems Laboratory 1
- GEOG202 Introduction to Human Geography 3
- GEOG212 Introduction to Human Geography Laboratory 1

Gateway Courses:
- GEOG300 one 300 level physical geography course 3
- GEOG300 one 300 level human geography course 3
- GEOG300 one 300 level technique course 3
- GEOG300/400 Upper Level Geography Electives 15
- GEOG306 Introduction to Quantitative Methods for the Geographic Environmental Sciences 3

In addition to the required credit hours in geography, the social studies education program requires 25 credit hours of course work in history and the social sciences as outlined below.

SOCY OR one Sociology or Anthropology course 3
- ANTH
- ECON200 Principles of Micro-Economics 4
- ECON ECON Elective 3
- GVPT100 Principles of Government and Politics (CORE: SB), OR 3
- GVPT260 State and Local Government, OR
- GVPT280 Comparative Politics and Governments
- GVPT170 American Government (CORE: SB) 3
- HIST156 History of the United States to 1865, OR 3
- HIST157 History of the United States since 1865
- HIST100/200 HIST (non-Western 100/200 level) (3) 3
- HISTxx Western History 3

One course in Ethnic Minority Studies (U.S. orientation); can be one of the above courses in social sciences or history.

Professional Education Courses
- EDCI426 Materials & Resources in Social Studies (Fall only, Junior Year) 3
**Option III: Government and Politics**

The Government and Politics program is under review. Please check with the Government Department regarding specific course work. This option is primarily for those students earning their initial degree. Requires a minimum of 65 credit hours of preprofessional/subject area course work. Thirty-six hours must be in GVPT. At least eighteen of the thirty-six credit hours must be upper-level courses.

All GVPT majors must also complete an approved skills option (a foreign language or three quantitative courses from a select list - see GVPT advising office.)

In addition, the GVPT program is a Limited Enrollment Program (LEP). See GVPT advisor for specific admission requirements.

### Pre-Professional/Subject Area Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVPT100</td>
<td>Principles of Government and Politics (CORE: SB)</td>
<td>3</td>
</tr>
<tr>
<td>GVPT170</td>
<td>American Government (CORE: SB)</td>
<td>3</td>
</tr>
<tr>
<td>GVPT241</td>
<td>The Study of Political Philosophy: Ancient and Modern</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVES</td>
<td>GVPT Electives</td>
<td>9</td>
</tr>
<tr>
<td>GVPT300/400</td>
<td>GVPT Upper Level Courses</td>
<td>18</td>
</tr>
</tbody>
</table>

*EDCI 427 and EDCI428 are taken concurrently*

### Social Science Quantitative Courses or Foreign Language (see GVPT advisor)

In addition to the required credit hours in GVPT, the social studies education program requires 26 credit hours of course work in history and the social sciences as outlined below.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST156</td>
<td>History of the United States to 1865, OR</td>
<td>3</td>
</tr>
<tr>
<td>HIST157</td>
<td>History of the United States since 1865</td>
<td>3</td>
</tr>
<tr>
<td>HIST100/200</td>
<td>Non-Western History 100/200 level</td>
<td>3</td>
</tr>
<tr>
<td>SOCY OR</td>
<td>Sociology OR Anthropology course</td>
<td>3</td>
</tr>
<tr>
<td>ANTH</td>
<td>Principles of Micro-Economics</td>
<td>4</td>
</tr>
<tr>
<td>ECON200</td>
<td>ECON Elective</td>
<td>3</td>
</tr>
<tr>
<td>GEOG300/400</td>
<td>Upper Level GEOG, OR</td>
<td>3</td>
</tr>
<tr>
<td>HIST300/400</td>
<td>Upper Level HIST</td>
<td>3</td>
</tr>
<tr>
<td>GEOG201</td>
<td>Geography of Environmental Systems (CORE: PL)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG211</td>
<td>Geography of Environmental Systems Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>
Requirements for the Minor

The Minor in Secondary Education provides opportunities for undergraduate subject area majors to enroll in a sequence of education courses that helps them to determine if teaching is a viable career option for them. The 15-18 credit minor may be taken prior to admission into a teacher preparation program. If an undergraduate student pursuing or completing the minor desires to enter an education track, the candidate must apply for the dual major program to obtain certification as a secondary education classroom teacher through completion of a Maryland State Department of Education approved program option. Some of the courses students take to complete the Minor in Secondary Education may also be applicable in certification options at the graduate level offered through the Department of Curriculum and Instruction. These students should consult with an advisor in the Department of Curriculum and Instruction to identify the most appropriate option leading to teacher certification and to review the specific admission requirements associated with these programs.

For more information about the secondary education minor, see www.education.umd.edu/studentinfo/undergraduate_info/secedminor.html.

Certificate

The Certificate Program requires completion of an academic major, including coursework specific to meet certification standards in the certificate area, and a bachelor's degree in an approved academic content area, plus the completion of a certificate program in secondary education to meet requirements in UM's approved program for MSDE certification. Selected coursework from the Minor in Secondary Education may be taken prior to admission to the Certificate Program option.

Detailed information about this program option is available at the College of Education website,
www.education.umd.edu/EDCI/info/tcert.htm

**Advising**

Advising is mandatory for all students. Students receive advising through individual appointments or walk-in hours during the early registration period. Information regarding advising schedules is available each semester. Walk-in advising hours are also posted each semester. Check in the department office, 1207 Benjamin Building.

**Internships**

The yearlong internship, which is the culminating experience in the teacher preparation program, takes place in a collaborating school (i.e., partner school, PDS -- Professional Development School).

**Scholarships and Financial Assistance**

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu

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Dance (DANC)

College of Arts and Humanities
Clarice Smith Performing Arts Center, 301-405-3180
www.dance.umd.edu
Chair: D. MacLean Wagner (Acting Chair)
Professors: M. Rosen, A. Warren, A. Wiltz
Associate Professors: K. Bradley, N. Yatkin
Instructors: A. Mayes
Lecturers: S. Druker, P. Jackson
Professors Emeriti: D. Madden, L. Warren

The Major

The undergraduate curriculum, which leads toward a B.A. degree in Dance, is designed to facilitate the acquisition of new movement skills, enhance creativity, and develop scholarly insights in the field. Comprehensive studio and theory courses provide a foundation for a range of careers in dance. Students may choose to study a particular aspect of dance in depth, such as performance, choreography, or production; or they may choose to merge their interest in dance with an interest in another field of study. Graduates of the program pursue graduate work in dance as well as careers as professional dancers and choreographers, university and secondary school teachers, dance managers, and dance critics. They also work in the fields of dance medicine and therapy.

The dance faculty is composed of a number of distinguished teachers, choreographers, and performers, each one a specialist in his or her own field. Visiting artists throughout the year make additional contributions to the program. There are performance and choreographic opportunities for all dance students, ranging from informal workshops to fully mounted concerts both on and off campus.

Requirements for the Major

Students must complete 57 semester hours of dance credits. Of these, 18 hours of modern technique at the Dance 248 level and above, and four hours of ballet technique at the Dance 228 level and above are required. The remaining 35 credits must be distributed as follows:

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANC102</td>
</tr>
<tr>
<td>DANC109</td>
</tr>
<tr>
<td>DANC200</td>
</tr>
<tr>
<td>DANC210</td>
</tr>
<tr>
<td>DANC208</td>
</tr>
<tr>
<td>DANC308</td>
</tr>
<tr>
<td>DANC388</td>
</tr>
<tr>
<td>DANC305</td>
</tr>
<tr>
<td>DANC370</td>
</tr>
<tr>
<td>DANC466</td>
</tr>
<tr>
<td>DANC483</td>
</tr>
<tr>
<td>DANC485</td>
</tr>
</tbody>
</table>
A grade of C or higher must be attained in all dance courses.

New, re-entering, and transfer students are expected to contact the department following admission to the university for instructions regarding advising and registration procedures. Although entrance auditions are not required, some previous dance experience is highly desirable.

Departmental advising is mandatory each semester.

**Advising**

Departmental advising is mandatory each semester.

*Return to top*
DECISION AND INFORMATION TECHNOLOGIES (BMGT)

The Robert H. Smith School of Business
1570 Van Munching Hall, 301-405-2286
www.rhsmith.umd.edu/undergrad
Chair: G. Anandalingam
Associate Professors: F. Alt, Z. Chen, S. Faraj, S. Raghavan
Lecturers: K. Ruhi (Tyser Teaching Fellow), J. Suarez (Tyser Teaching Fellow)
Professors Emeriti: L. Bodin, S. Gass
Visiting Faculty: H. Ibrahim (Distinguished Tyser Teaching Fellow), K. Prasad, E. Studer-Ellis (Distinguished Tyser Teaching Fellow)

The Major

The Department of Decision and Information Technologies offers two majors: Information Systems - Specialization: Business, and Operations Management.

Information Systems - Specialization: Business

The Business Area of Concentration in the Information Systems (IS) program prepares students to be effective planners, users and managers of information technologies and systems in the current environment of the technology-enabled business firm. The IS major focuses on the system design and implementation skills including database and web design, analytical skills for both strategic planning of IT and performance evaluation, and the managerial plus organizational knowledge required to manage information systems and applications based on business and customer requirements. The major's core emphasizes the concepts of systems analysis and design, and the strategic use of information systems. In addition to a broad grounding in the key functional areas of marketing, operations, accounting, and finance, this major develops in-depth knowledge of information systems design and implementation, evaluation and planning of information technology investments, and managing dynamic technology projects.

Operations Management

Operations Management involves the design and management of an organization's systems and processes focusing on the creation and delivery of products and services. This includes such functions as capacity planning, inventory management, logistics management, production planning and control, resource allocation and total quality. Career opportunities exist in consulting, manufacturing, retailing, service organizations and government.

Admission to the Major

See Robert H. Smith School of Business entry in chapter 6 for admission requirements.

Requirements for the Major
Information Systems - Specialization: Business

**Major Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT302</td>
<td>Business Computer Application Programming</td>
<td>3</td>
</tr>
<tr>
<td>BMGT402</td>
<td>Database Systems</td>
<td>3</td>
</tr>
<tr>
<td>BMGT403</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>BMGT407</td>
<td>Information Systems Projects</td>
<td>3</td>
</tr>
</tbody>
</table>

*Two courses from list 'A' or one course from 'A' and one course from list 'B':*

**List A**

- BMGT405  Business Telecommunications
- BMGT406  Electronic Commerce Application Development
- BMGT408  Selected Topics in Decision & Info. Tech. (*repeatable if content differs*)
- BMGT326  Accounting Systems
- BMGT476  Applied Computer Models in Supply Chain Management
- BMGT484  Electronic Marketing

**List B**

- BMGT332  Operations Research for Management Decisions
- BMGT385  Operations Management
- BMGT430  Linear Statistical Models in Business
- BMGT434  Introduction to Optimization
- BMGT485  Project Management
- BMGT486  Total Quality Management

**Total credits required**: 18

**Upper Level Economics Requirements**

*one of the following courses:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON305</td>
<td>Intermediate Macroeconomic Theory and Policy</td>
<td>3</td>
</tr>
<tr>
<td>ECON306</td>
<td>Intermediate Microeconomic Theory</td>
<td></td>
</tr>
<tr>
<td>ECON330</td>
<td>Money and Banking</td>
<td></td>
</tr>
<tr>
<td>ECON340</td>
<td>International Economics</td>
<td></td>
</tr>
</tbody>
</table>

**Total ECON**: 3

Operations Management

Students pursuing the Operations Management major must complete MATH 220 or MATH 140 and BMGT 230 or 231 prior to junior standing; and those interested in graduate work in this field are strongly advised to complete MATH 141, MATH 240 and 241 as well.

The course requirements for the junior-senior curriculum concentration in Operations Management are as follows:

**Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT332</td>
<td>Operations Research for Management Decisions</td>
<td>3</td>
</tr>
<tr>
<td>BMGT385</td>
<td>Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BMGT485</td>
<td>Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

*One of the following courses (check prerequisites):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT430</td>
<td>Linear Statistical Models in Business</td>
<td>3</td>
</tr>
<tr>
<td>BMGT434</td>
<td>Introduction to Optimization</td>
<td></td>
</tr>
<tr>
<td>BMGT435</td>
<td>Business Process Simulation</td>
<td></td>
</tr>
</tbody>
</table>

*Two of the following courses (check prerequisites):*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
BMGT430  Linear Statistical Models in Business
BMGT434  Introduction to Optimization
BMGT435  Business Process Simulation
BMGT372  Introduction to Logistics and Supply Chain Management
BMGT403  Systems Analysis and Design
BMGT486  Total Quality Management*
BMGT487  Six Sigma Innovation*
BMGT490H The Total Quality Practicum  *(Open only to QUEST students)*

**Total BMGT** 18

**Upper Level ECON Requirements**

*One of the following courses:*

ECON305  Intermediate Macroeconomic Theory & Policy
ECON306  Intermediate Microeconomic Theory
ECON330  Money and Banking

**Total ECON** 3

*students take either BMGT486 or BMGT487; not both*

In addition to the major requirements listed above, please consult Chapter 6 or www.rsmith.umd.edu for a listing of additional Smith School degree requirements that apply to all Smith School majors.

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Dietetics

For more information, consult Nutrition and Food Science in Chapter 7.

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East Asian Studies Certificate

College of Arts and Humanities
2101B Francis Scott Key Hall, 301-405-4309

The Undergraduate Certificate in East Asian Studies is a 24-credit course of instruction designed to provide specialized knowledge of the cultures, histories, and contemporary concerns of the peoples of China, Japan, and Korea. It will complement and enrich a student's major. The curriculum focuses on language instruction, civilization courses, and electives in several departments and programs of the university. It is designed specifically for students who wish to expand their knowledge of East Asia and demonstrate to prospective employers, the public, and graduate and professional schools a special competence and set of skills in East Asian affairs.

Upon satisfactory completion of the courses, with a grade of C or better in each course, and recommendation by the Coordinator of the Certificate Program, a certificate will be awarded. A notation of the award of the certificate will be included on the student's transcript. The student must have a bachelor's degree awarded by Maryland (must be College Park campus) previous to or simultaneously with an award of the certificate.

Certificate Requirements

CORE Courses: The student is required to take:

1. HIST 284 East Asian Civilization I
2. HIST 285 East Asian Civilization II
3. Six semester hours of introduction to one of the following East Asian languages (Chinese, Japanese, or Korean):
   - CHIN 101 Elementary Chinese I
   - JAPN 101 Elementary Japanese I
   - KORA 101 Elementary Korean I
   - KORA 102 Elementary Korean II
   - KORA 211 Introductory Reading for Speakers of Korean I
   - KORA 212 Introductory Reading for Speakers of Korean II

Students with language competence equivalent to these language courses are exempted from the language requirement; such students are required to complete an additional six hours of electives in East Asian courses to fulfill the 24-credit requirement for the certificate.

Electives: Students must complete at least 12 hours of electives selected from four regular formally approved courses on East Asia in at least two of the following categories: (1) art history, (2) geography, (3) government and politics, (4) history, (5) language, linguistics, and literature, (6) music, and (7) women's studies. Nine of the 12 hours of electives must be upper division (300-400 level) courses. A maximum of three credit hours of special topics courses on East Asia will be allowed with the approval of the student's certificate advisor. No more than nine credits from any one department may be applied toward the certificate. No more than nine credits applied to the student's major may also apply to the certificate. In addition, no more than nine credits of the courses applied toward the certificate may be transferred from other institutions. Students are asked to work with their advisor in ensuring that the electives maintain an intercollegiate and interdisciplinary focus (at least three disciplines are recommended). Interested students should contact the Coordinator of the Certificate Program, Dr. Marlene Mayo, Department of History, Francis Scott Key Hall, mmayo@umd.edu.

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Economics (ECON)

College of Behavioral and Social Sciences
3105 Tydings Hall, 301-405-3505
www.bsos.umd.edu/econ
economics@econ.bsos.umd.edu
Chair: P. Murrell
Director: C. Clement (Lecturer, Director of Undergraduate Studies)
Associate Professors: J. Chao, P. Coughlin, M. Duggan, J. Hellerstein, J. Shea
Assistant Professors: S. Aruoba, Z. Jin, M. Kearney, N. Limao, C. McKelvey, R. Soares, R. Vlaicu

The Major

Economists study a wide range of phenomena using analytical methods which describe how people and collections of people behave and interact. Many economists define their profession as the analysis of decisions made in the context of scarcity. Economics can also be described as the study of the production, pricing, and distribution of goods and services within societies. Economists study such problems as inflation, unemployment, poverty, environmental quality, financial markets, and international trade. Economists also apply their methods of analysis to such diverse areas as crime, health care, discrimination, and the problems of developing countries.

Courses offered by this department may be found under the following acronym: ECON. As a large, diverse department, courses are offered in all of the major fields of economic study. Many courses analyze the role of the government and public policies impacting economic outcomes, while others focus on developing advanced applications of economic theories and methodologies.

The program is designed to serve both majors and non-majors. The department offers a variety of 300-level courses on particular economic issues which can be taken after two semesters of principles. The program for majors is designed to serve those who will seek employment immediately after college as well as those who will pursue graduate study. Economics majors have a wide variety of career options, including positions in state and local government, federal and international agencies, business, finance and banking, journalism, teaching, politics and law. Many economics majors pursue graduate work in economics or another social science, law, business or public policy.

Program Learning Outcomes

Students are expected to fully utilize the opportunities presented for learning and research. Having completed the degree program, students should have acquired the following knowledge and skills:

1. Understanding of the key terminology used within the discipline.
2. Ability to use the fundamental methods and tools of the discipline to model economic behavior and to describe and analyze relationships between economic variables.
3. Ability to interpret and apply descriptive and inferential statistics.
4. Ability to analyze the effect of government policies on the economy using both conceptual and quantitative tools.

Requirements for the Major
In addition to the university's general education (CORE) requirements, students who declare Economics as a major during the Spring 2007 semester or thereafter must earn a minimum of 38 credits via a combination of foundation and elective courses in Economics and Math as listed below. Economics majors must also complete a minimum of 15 credits in supporting courses. All courses must be passed with a grade of C or better to count towards the foundation, elective, and supporting requirements. A course used to fulfill one requirement for the major may not count towards any other major requirement. Students should see a departmental advisor for guidance on choosing between various options, especially if future plans include graduate training in economics. Students who declared Economics before Spring 2007, can choose to follow these new requirements OR the previous requirements. See a departmental advisor for details.

### Foundation Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON200</td>
<td>Principles of Micro-Economics</td>
<td>4</td>
</tr>
<tr>
<td>ECON201</td>
<td>Principles of Macro-Economics</td>
<td>4</td>
</tr>
<tr>
<td>MATH220</td>
<td>Elementary Calculus I or</td>
<td>3</td>
</tr>
<tr>
<td>MATH140</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>ECON300*</td>
<td>Methods &amp; Tools for Economic Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECON321</td>
<td>Economic Statistics or</td>
<td>3</td>
</tr>
<tr>
<td>STAT400</td>
<td>Applied Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>ECON326</td>
<td>Intermediate Macroeconomic Theory &amp; Policy</td>
<td>3</td>
</tr>
<tr>
<td>ECON325</td>
<td>Intermediate Microeconomic Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

### Economics Electives Courses

- **One from**  
  - ECON310  
  - European Economic History  
  
- **One from**  
  - ECON311  
  - American Economic History Before the Civil War  
  - ECON312  
  - American Economic History After the Civil War  
  - ECON314  
  - Economic History, Development and Policy  
  - ECON315  
  - Economic Development of Underdeveloped Areas  
  - ECON416  
  - Theory of Economic Development  

- **One from**  
  - ECON402  
  - Economic Models and Forecasting  
  
- ECON422  
  - Econometrics I  
- ECON424  
  - Computer Methods in Economics  
- ECON425  
  - Mathematical Economics  

- **Three from**  
  - ECON4xx  
  - Any 400 level Economics courses  

*With permission from the department a major may substitute a math course
(MATH 240 or MATH 241) for ECON 300.

** The Economics curriculum may be updated over time, given college and campus approval. Students will be notified as other appropriate courses are approved that fulfill the requirements for the major.

Supporting Courses:

Support - UL Upper level courses - see NOTES below 15

NOTES:

- Excludes Junior English writing class, internships, experiential learning, and 'non-traditional' courses.
- Additional mathematics courses beyond the required mathematics course (MATH 220 or 140) may be counted as fulfilling the Additional Support Course Requirement.
- Additional economics courses may be included among the 15 hours of supporting courses.
- All supporting courses must be approved by an Economics Department Advisor.
- All courses meeting the Additional Supporting Course requirement must be completed with a grade of C or better and may not be taken pass-fail, except ECON386 which can only be taken pass-fail.

Other Requirements for the Major

Study Sequences and Plans of Study

Economics is an analytical discipline, building on a core of principles, modeling methodologies, and statistical techniques. Students must begin with a foundation in mathematics and economic principles (ECON 200 and ECON 201). A more advanced, analytic treatment is presented in intermediate theory courses (ECON 325 and ECON 326), which provide necessary background for in-depth study of any specific issues, such as those covered in the upper level courses. Empirical research and the use of computers are becoming increasingly important in economics. All students are well advised to include as many statistics, econometrics, and quantitative methods courses in their curriculum as possible.

Students interested in economics as preparation for a career in business, law, or policy-making and analysis, should visit the department's website for suggestions on specific upper-level courses to satisfy the elective requirements for the major.

Those students planning to pursue graduate study in economics must begin to prepare themselves analytically for graduate work by focusing on theory, statistics, and mathematics in their undergraduate curriculum. These students should consider the full econometrics sequence of ECON 422 and 423. Mastery of the calculus and linear algebra is essential for entrance into graduate schools, and therefore students must take MATH 140, MATH 141, MATH 240 (or MATH 400), MATH 241 and MATH 246. Students should also plan on taking MATH 410 and 411.

Benchmarks: Students declaring Economics as their major must meet satisfactory progress benchmarks for the major. These benchmarks are not applicable to freshmen declaring Economics as their major; these students should meet with an advisor to set appropriate expectations and an academic plan for their Economics course work. Otherwise, Economics majors must complete (with a grade of "C" or higher) ECON200, ECON201, MATH220 or 140, and ECON300 within 2 semesters of entering the major. The College also requires the completion of four CORE Distributive Studies courses (which can include ECON200, ECON201, and Calculus), as well as the English Fundamental Studies requirement.

In addition to the benchmark courses included above, students must complete ECON326 and ECON321 (with a grade of "C" or higher) within three semesters of entering the major.

Advising
Departmental academic advisors work with current and prospective majors on a walk-in basis. Majors are encouraged to see an advisor at least once an academic year to verify progress in their program requirements. Further information on courses, internships, the department honors program, careers, and graduate schools may be obtained from the advisors.

Location: 3127 Tydings Hall
Phone contacts: 301-405-3153; 301-405-7845; 301-405-3503

**Honors Program**

The Economics Honors Program provides economics majors with the opportunity for advanced study in a seminar format, with faculty supervision of seminar papers and an honors thesis. The Honors Program is designed for students intending to attend graduate school or those seeking an in-depth study of economic theory and its application to economic problems.

The Honors Program is a 12-hour sequence, culminating in the completion of a senior thesis. Students must complete ECON 422 prior to their senior year. Students must also complete ECON 396 (Honors Workshop - fall term) and ECON 397 (Honors Thesis - spring term) in their senior year. To complete the program, any one of the following four courses can be taken concurrently or prior to the honors workshop and thesis: ECON 407, 414, 423, 425.

To be eligible for admission, a student must have completed 15 hours of economics with a GPA of 3.25. Interested students should meet with the Director of Undergraduate Studies at the earliest possible date to review their curriculum plans and to apply for admission to the program.

**Student Societies and Professional Organizations**

Omicron Delta Epsilon is the economics honorary society. Please see the Undergraduate Economics Advisors in 3127 Tydings for membership information.

The Economics Association of Maryland is an undergraduate club that meets regularly to discuss graduate study in economics and other fields, employment opportunities, and recent economic trends. Please see the Undergraduate Economics Advisors in 3127 Tydings for more information.

**Awards and Recognition**

The Dudley and Louisa Dillard Prize, currently $1,000, is awarded to the outstanding Economics junior and senior with a broad liberal arts program.

The Sujon Guha Prize, currently $500, is awarded to the best Honors Thesis in Economics.

The Martin Moskowitz Awards provides scholarships to students based on academic excellence, financial need, and a demonstrated commitment to and philosophy of public service.

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Education Policy and Leadership (EDUC)

College of Education
2110 Benjamin Building, 301-405-3570
www.education.umd.edu/EDPL
Chair: T. Weible, Professor and Interim Chair
Professors: A. Cabrera, B. Finkelstein, F. Hultgren, S. Klees, B. Malen, C. Parham (Prof Of Practice), P. Richardson (Prof Of Practice), S. Selden, J. Williams (Prof Of Practice)
Associate Professors: R. Croninger, S. Fries-Britt, D. Herschbach, J. Lin, H. Mawhinney, J. Rice
Assistant Professors: J. Cossentino, C. Spreen

The Major

While the department does not have an undergraduate major, it does offer a number of courses which are open to undergraduates and are suggested for students interested in studying the role of education in society or considering graduate work in education policy and leadership. Particular courses of interest include Foundations of Education and Education in Contemporary American Society, and Historical and Philosophical Perspectives on Education.

Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit:
www.financialaid.umd.edu
Electrical Engineering (ENEE)

A. James Clark School of Engineering
2429 A.V. Williams Building, 301-405-3685
www.ece.umd.edu
eceadvis@deans.umd.edu
Chair: P. O'Shea (Professor)

Professors: E. Abed, T. Antonsen (Prof, Affiliate Prof), J. Baras, D. Barbe, A. Barg, S. Bhattacharyya (Affil Assoc Prof, Prof), G. Blankenship (Associate Chair External Relations, R. Chellappa (Distinguished Scholar Teacher), N. De Claris, M. Dagenais, C. Davis (Distinguished Scholar Teacher), W. Destler (Distinguished Scholar Teacher), A. Ephremides, N. Farvardin, M. Franklin, V. Gligor, J. Goldhar, N. Goldsman, R. Gomez, V. Granatstein, P. Ho, A. Iliadis, J. JaJa, P. Krishnaprasad, W. Lawson (Associate Chair, Undergraduate Studies), W. Levine, K. Liu (Associate Chair, Graduate Studies, Distinguished Scholar Teacher), A. Makowski, S. Marcus (Distinguished Scholar Teacher), I. Mayergoz (Distinguished Scholar Teacher), J. Melngailis, H. Milchberg (Distinguished Scholar Teacher), K. Nakajima, P. Narayan, R. Newcomb (Prof), Y. Oruc, E. Ott (Distinguished University Professor), M. Peckerar, H. Rabin, S. Shamma, M. Shayman, A. Tits, U. Vishkin, C. Yang


Assistant Professors: P. Abshire, N. Martins, T. Murphy, P. Petrov, K. Rosfjord, J. Simon, A. Srivastava, E. Waks


The Major

The Electrical Engineering major is intended to prepare students to function as effective citizens and engineers in an increasingly technological world as well as in science and engineering subjects. Depth as well as breadth is required in the humanities and social sciences to understand the economic, ecologic, and human factors involved in reaching the best solutions to today's problems.

The basic foundation in mathematical, physical, and engineering sciences is established in the first two years of the curriculum. A core of required Electrical Engineering courses is followed by a flexible structure of electives that allows either breadth or specialization. Appropriate choices of electives can prepare an Electrical Engineering major for a career as a practicing engineer and/or for graduate study.

Areas stressed in the major include communication systems, computer systems, control systems, engineering electromagnetics, microelectronics, and power systems. Within these areas are courses in such topics as solid state electronics, integrated circuits, lasers, communications engineering, computer design, power engineering, digital signal processing, antenna design, and many others. Project courses allow undergraduates to undertake independent study under the guidance of a faculty member in an area of mutual interest.

Program Objectives

The educational objectives are broadly stated goals agreed upon by a consensus of the faculty pertaining to accomplishments or level of achievement desired of our students 3-5 years after graduation. These fall under the following four headings:

1. Technical Knowledge: Graduate engineers trained in the fundamentals of electrical engineering and relevant specialties so they are prepared to succeed in graduate school and/or be productive engineers in government or industry.
2. Laboratory, Design, and Research: Graduate engineers who can design and perform experimental projects to solve diverse problems, with special emphasis on exploiting diverse technical knowledge and skills so they can engage in design work or research.

3. Preparation for Further Study: Graduate engineers who have the educational foundations and skills necessary to engage in lifelong learning in every sphere of their life.

4. Professionalism: Graduate engineers who have the professional skills they need to succeed in their chosen profession and are prepared to fulfill their professional responsibilities as engineers, which include their ethical obligations to society, employers, employees, and fellow engineers.

Program Learning Outcomes

Educational Opportunities

The program offers many educational opportunities. Most of these are designed to impart knowledge and skills required of all our students so that by the time of graduation they are prepared to achieve the Educational Objectives. Other opportunities are optional and offered for interested and qualified students. The educational opportunities are:

1. Broad Foundation: Understanding of and ability to apply relevant mathematical, scientific, and basic engineering knowledge.

2. Disciplinary Foundation: Understanding of and ability to apply core electrical engineering technical knowledge.

3. Specialization: Understanding of and ability to apply the skills and concepts within one or more of the specializations within electrical engineering.

4. Laboratory: Understanding of and ability to employ standard experimental techniques to generate and analyze data as well as use state-of-the-art software and instrumentation to solve electrical engineering problems.

5. Design: Theoretical understanding of and ability to engage in the creative design process through the integration and application of diverse technical knowledge and expertise to meet customer needs and address social issues.

6. Research: Ability to formulate and answer empirical and theoretical questions through participation in undergraduate research projects for interested and qualified students.

7. Leadership: Awareness of the need for engineering leaders both within the profession and the larger community, as well as some preparation to assume those leadership roles.

8. Communication Skills: Ability to communicate effectively both through oral presentations and the written word.

9. Interpersonal Skills: Ability to interact professionally with others in the workplace, to engage effectively in teamwork, and to function productively on multidisciplinary group projects.

10. Engineering Ethics: Understanding of the engineer's responsibilities to employers, society, and their fellow engineers as well as an ability to recognize potential and actual ethical problems, analyze critically those situations, and formulate sound ethical decisions.

11. Engineering & Society: Understanding of the symbiotic relationship between engineering and society specifically, how engineering artifacts are shaped by and incorporate human values as well as the ways in which engineering solutions impact society and the larger social obligations this entails for engineers.

12. Life-long Learning: Skills necessary to engage in life-long learning and an understanding of the need to continually exploit those skills in refining and updating one's knowledge base.
## Requirements for the Major

Requirements for the Electrical Engineering major include thorough preparation in mathematics, physics, chemistry, and engineering science. Elective courses must include both Electrical Engineering courses and technical courses outside the department. Students must earn a grade of 'C' or higher in all engineering, mathematics, and science courses, as well as the prerequisites for these courses. A sample program is shown below.

### Freshman Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM135</td>
<td>General Chemistry for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>PHYS161</td>
<td>General Physics</td>
<td>3</td>
</tr>
<tr>
<td>MATH140/141</td>
<td>Calculus I / Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>ENES100</td>
<td>Intro. To Engineering Design</td>
<td>3</td>
</tr>
<tr>
<td>ENEE114</td>
<td>Programming Concepts for Engineers</td>
<td>4</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE General Education*</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

### Sophomore Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH241</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH246</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>PHYS260/261</td>
<td>General Physics II and Lab</td>
<td>4</td>
</tr>
<tr>
<td>PHYS270/271</td>
<td>General Physics III and Lab</td>
<td>4</td>
</tr>
<tr>
<td>ENEE241</td>
<td>Numerical Techniques in Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENEE244</td>
<td>Digital Logic Design</td>
<td>3</td>
</tr>
<tr>
<td>ENEE204</td>
<td>Basic Circuit Theory</td>
<td>3</td>
</tr>
<tr>
<td>ENEE206</td>
<td>Digital Circuits Lab</td>
<td>2</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE General Education*</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>

### Junior Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH4xx**</td>
<td>Advanced Elective Math</td>
<td>3</td>
</tr>
<tr>
<td>ENEE303</td>
<td>Analog and Digital Electronics</td>
<td>3</td>
</tr>
<tr>
<td>ENEE307</td>
<td>Electronics Circuits Design Lab</td>
<td>2</td>
</tr>
<tr>
<td>ENEE313</td>
<td>Intro. to Device Physics</td>
<td>3</td>
</tr>
<tr>
<td>ENEE322</td>
<td>Signal and System Theory</td>
<td>3</td>
</tr>
<tr>
<td>ENEE324</td>
<td>Engineering Probability</td>
<td>3</td>
</tr>
<tr>
<td>ENEE350</td>
<td>Computer Organization</td>
<td>3</td>
</tr>
<tr>
<td>ENEE380</td>
<td>Electromagnetic Theory</td>
<td>3</td>
</tr>
<tr>
<td>ENEE381</td>
<td>Electromagnetic Wave Program</td>
<td>3</td>
</tr>
<tr>
<td>CORE</td>
<td>CORE General Education*</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

### Senior Year

<table>
<thead>
<tr>
<th>Credits</th>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE</td>
<td>Technical Electives - NON-EE</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Technical Electives - EE Electives</td>
<td>7</td>
</tr>
<tr>
<td>ENGL393</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
</tbody>
</table>
**New EE Technical Elective Requirements**

Effective Spring 2001, all BSEE graduates must distribute their 13 credits of EE technical electives among the following course categories:

<table>
<thead>
<tr>
<th>Category A</th>
<th>Advanced Theory and Applications</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Advanced Laboratory</td>
<td>minimum of 2 credits</td>
</tr>
<tr>
<td>Category C</td>
<td>Capstone Design</td>
<td>minimum of 3 credits</td>
</tr>
</tbody>
</table>

Please read carefully, and make a note of, the following special cases and other items:

1. Two credits of ENEE 499, Senior Projects in Electrical and Computer Engineering, may be used to satisfy the Advanced Laboratory requirement subject to approval by the faculty supervisor and the Associate Chair. The maximum number of ENEE 499 credits that may be applied towards EE technical elective requirements is five.

2. Additional Capstone Design courses can be used as substitutes for
   - the required Advanced Theory and Applications course; and/or
   - the required Advanced Laboratory course, provided one of the following is completed: ENEE 408A, 408B, 408C, or 408F.

3. Completion of ENEE 408A and ENEE 459A satisfies both the Capstone Design and Advanced Laboratory requirements.

4. If you have any questions on how these requirements affect your current selection of senior EE electives, please contact an advisor.

**Advising**

In addition to the associate chair and the Director and Associate Director of Undergraduate Studies, faculty in Electrical and Computer Engineering function as undergraduate advisors. Departmental approval is required for registration in all courses in the major. The department's Undergraduate Office (2429 A.V. Williams Building, 301-405-3685) is the contact point for undergraduate advising questions.

**Undergraduate Research Experiences**

The Department of Electrical and Computer Engineering is affiliated with more than 40 specialized laboratories, supporting activities including: speech and image processing, high performance systems, mobile computing and multimedia, communication networks, robotics, control systems, neural systems, systems integration, VLSI design and testing, experimental software engineering, semiconductor materials and devices, photonics, fiber optics, ion beam lithography, real-time systems, human-computer interaction, and virtual reality. Undergraduate students are encouraged to engage in research at some point during their education. Active participation in research not only allows students to apply what they have learned in class, it also gives them greater insight into a specific area within ECE and an appreciation for the subtleties and difficulties associated with the production of knowledge and fundamental new applications. Research experience also prepares students for the demands of graduate school and the work force. Information on participating in
undergraduate research can be found at www.ece.umd.edu/Academic/Under/advising/ENEE499.html.

**Internships**

Information on internships can be found at www.coop.eng.umd.edu.

**Co-op Programs**

Participation in the Cooperative Education Program is encouraged. See A. James Clark School of Engineering entry in chapter 6 for details.

**Honors Program**

The Electrical and Computer Engineering Honors Program is intended to provide a more challenging and rewarding undergraduate experience for students pursuing the baccalaureate in Electrical or Computer Engineering. The program requires students to complete honors versions of four junior level electrical engineering courses and an honors project during the senior year. Students completing all program requirements with a 'B' average (3.0 on a 4.0 scale) and a cumulative GPA of 3.0 for all undergraduate work will have their participation noted on their B.S. diploma.

**Student Societies and Professional Organizations**

There is an active Student Chapter of the Institute of Electrical and Electronics Engineers (IEEE). Information and membership applications are available in the Electrical and Computer Engineering undergraduate lounge, 0107 Glenn L. Martin Hall. Equally active is the chapter of Eta Kappa Nu, the nationwide Electrical Engineering honorary society. Information on eligibility can be obtained in the HKN lounge, 1154 Engineering Laboratory Building.

**Scholarships and Financial Assistance**

Several corporate scholarships are administered through the department. All students must complete the College of Engineering’s online scholarship application each year to be considered for all College of Engineering and Electrical and Computer Engineering Departmental scholarships. For information visit www.ursp.umd.edu/scholarships/index.html.

**Job Opportunities**

Electrical engineers were primarily responsible for the recent revolutions in the music and telecommunications industries. They remain at the forefront of cutting edge developments and innovations in nanotechnology, robotics, and other technologies. Electrical engineers also have wide ranging employment opportunities in other fields including electronics, microelectronics, communications and signal processing, power systems, electrophysics, computer architecture, circuits, antennas, and control systems. Specific jobs include developing fiber optic technology, lasers for biomedical applications, software for robots, electronic weapons systems, advanced wireless networks, and neuron-like sensors for various applications.

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Engineering, Bachelor of Science (ENGR)

A. James Clark School of Engineering
1124 Glenn L. Martin Hall, 301-405-3936
www.eng.umd.edu

The Major

All undergraduates in engineering will typically select their major field sponsoring department by the end of their second year regardless of whether they plan to proceed to a designated or undesignated degree. A student wishing to elect the B.S. Engineering degree program may do so at any time following the completion of the sophomore year, or a minimum of 50 earned credits towards any engineering degree, and at least one semester prior to the time the student expects to receive the baccalaureate. Once the student elects to seek a B.S. Engineering degree, the student’s curriculum planning, guidance, and counseling will be the responsibility of the B.S. Engineering Degree Program Advisor in the primary field department.

The student must file an Application for Admission to Candidacy for the Degree of Bachelor of Science in Engineering with the Office of Undergraduate Advising and Academic Support of the A. James Clark School of Engineering. The candidacy form must be approved by the chair of the primary field department, the primary engineering and secondary field advisors, and the college faculty committee on B.S. Engineering Degree Programs. This committee has the responsibility for implementing all approved policies pertaining to this program and for reviewing/acting on candidacy forms filed by students. Specific university and school academic regulations apply to this B.S. Engineering degree program in the same manner as they apply to the conventional designated degree programs. For example, the academic regulations of the university apply and the school requirement of a 2.0 GPA or better and a grade of C or better in all engineering courses. For the purpose of implementing such academic rules, the credits in the primary engineering field and the credits in the secondary field are considered to count as the major for such academic purposes.

Program Objectives

The B.S. Engineering Program has the following objectives:

- To prepare students who do not wish to follow a professional career in a traditional engineering field but rather plan to use the breadth and depth of their engineering education as preparation for entry into post-baccalaureate study or careers in such fields as medicine, law, or business administration.

- To prepare those students who do not intend to pursue a career in a traditional engineering field but rather want to use a more broad curriculum in order to gain a professional auxiliary or management position after graduation.

- The program is designed to give the student maximum flexibility to design an academic program which is specific to the student’s career goals.

Program Learning Outcomes

- Ability to apply knowledge of mathematics, science, and engineering
- Understanding of the multidisciplinary nature of the combination of the engineering and
non-engineering fields of the curriculum
- Understanding of professional and ethical responsibility

**Requirements for the Major**

**Minimum Requirements**

Listed below are the minimum requirements for the B.S. Engineering (Applied Science Option). Students are required to complete the freshman and sophomore requirements in the chosen primary engineering field and the general education requirements as outlined by the university and the Clark School of Engineering. The student, thus, does not make a decision whether to take the designated or the undesignated degree in an engineering field until the beginning of the junior year. In fact, the student can probably delay the decision until the spring term of the junior year with little or no sacrifice, thus affording ample time for decision-making. The program may be taken on the regular four-year format or under the Maryland Plan for Cooperative Engineering Education.

**Engineering Option**

The B.S. Engineering (Engineering Option) has been discontinued, effective Fall 2006.

**Applied Science Option**

The applied science option, which is not ABET-accredited, should be particularly attractive to those students who do not plan to pursue a professional engineering career but wish to use the rational and developmental abilities fostered by an engineering education as a means of furthering career objectives. Graduates of the applied science option may aspire to graduate work and an ultimate career in a field of science, law, medicine, business, or a variety of other attractive opportunities which build on a combination of engineering and a field of science. Entrance requirements for law and medical schools can be met readily under the format of this program. In the applied science program, any field in the university in which the student may earn a B.S. degree is an acceptable secondary science field, thus affording the student a maximum flexibility of choice for personal career planning.

**Credits**

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics/Physical Science Requirements</td>
<td>3</td>
</tr>
<tr>
<td>Engineering Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Primary Field</td>
<td>24</td>
</tr>
<tr>
<td>Secondary Field</td>
<td>12</td>
</tr>
<tr>
<td>Major Field or related electives</td>
<td>3</td>
</tr>
<tr>
<td>Approved electives</td>
<td>9</td>
</tr>
<tr>
<td>Senior research project</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td><strong>51</strong></td>
</tr>
</tbody>
</table>

Engineering fields of concentration available under the B.S. Engineering program as primary field are: aerospace engineering, bioengineering, chemical engineering, civil engineering, computer engineering, electrical engineering, fire protection engineering, materials engineering and mechanical engineering.

1 All courses used to fulfill the primary and secondary fields of concentration must be at the 300- and 400-level.
2 Engineering courses are courses offered by the Clark School of Engineering which have a prefix beginning with EN (e.g., ENES, ENME, ENEE, etc.). These elective courses may be in a student's primary or secondary field of concentration.
3 At least 50 percent of the elective courses (mathematics, physical sciences, engineering sciences, approved electives) must be at the 300- or 400-level.
4 Students are required to complete 15 credits of approved electives which include a senior-
level project or research assignment relating to the engineering and science fields of concentration, unless specifically excused.

Approved electives should be selected to strengthen the student's program consistent with career objectives. Courses in the primary or secondary fields of concentration may be used to satisfy the approved electives requirement.

In the applied science option, the approved electives should be selected to strengthen the student's program consistent with career objectives. Courses in the primary or secondary fields of concentration may be used to satisfy the approved electives requirement.

For the Engineering Option, the student's program must fulfill all ABET requirements, including sufficient credits in mathematics and basic sciences. Additionally, the program must contain the proper design component, as specified by ABET, which is, at a minimum, the capstone design course in either the student's primary or secondary engineering field. It is the responsibility of the student and his/her advisors to ensure that the requirements are satisfied by the appropriate selection of courses in the primary and secondary fields of concentration.

Advising

Advising is mandatory for all students in the program. The student must see his/her primary (engineering) field advisor prior to registering for courses in the next semester.

Internships

Internships are available for students in the program. Refer to the A. James Clark School of Engineering section of the catalog.

Co-op Programs

Co-op positions are available for students in the program. Refer to the A. James Clark School of Engineering section of the catalog.

Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

Students are also eligible for School scholarships - see the A. James Clark School of Engineering section of the catalog.
English (ENGL)

College of Arts and Humanities
2115 Susquehanna Hall, (301) 405-3825
www.english.umd.edu
english@umd.edu
Chair: G. Hamilton
Director: W. Cohen
Lecturers: D. Berger, L. Freeman, L. Macri, J. Miller, M. Olmert, L. Ryan

The Major

The English major has three parts: English 301, Group I Requirements, and Group II Requirements. Group I Requirements provide a broad foundation in literary history and an awareness of questions an inquiring reader might ask of a text. Group II Requirements explore in greater depth both literary periods and literary themes across periods, and develop skills in reading, criticism, writing, and research.

- The major requires 36 credits beyond the University's Fundamental Studies requirement. At least 30 of the 36 credits must be at the 300- or 400-level; at least 12 credits must be 400-level.
- A "C" or better is required in each course making up the 36 credits of the major.
- Three credits of ENGL388 (Internship) may be included in the 36 credits of the major.
- Only 6 credits of ENGL429 (Independent Study) may be included in the 36 credits of the major.
- Only 9 credits of ENGL379 (Special Topics) may be included in the 36 credits of the major.
- Only 9 credits of ENGL428 (Seminars) may be included in the 36 credits of the major.

Requirements for the Major

The English Major Requires 36-credits, Distributed As Follows:

<table>
<thead>
<tr>
<th>Credits</th>
<th>ENGL301: Critical Methods in the Study of Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>English Majors must take ENGL 301 before they take other 300- or 400-level English courses. We recommend it be taken during the sophomore year. In special cases, students may be permitted to take ENGL 301 while they are taking their first upper level course.</td>
</tr>
</tbody>
</table>
GROUP I REQUIREMENTS (one course in each area)  

- Literary and Cultural History  
- Literary, Linguistic, or Rhetorical Analysis  
- Literature of African-Americans, Peoples of Color, Women, and/or Lesbians, Gays, and Bisexuals  

GROUP II REQUIREMENTS  

To be taken at the 300- and 400-level. At least 12 credits must be at the 400-level.  

- Writing before 1800 (2 courses)  
- Modern British, Anglophone, and/or Postcolonial Writing (after 1800) (1 course)  
- American, African American, and/or U.S. Ethnic Writing (1 course)  

Four English focus courses which may follow a designated pathway if the student desires. Students may also count one 300- or 400-level literature course in a literary tradition other than English, either in the original language or in translation, as a Group II elective.  

Requirements for the Minor  

The English minor has three parts: English 301, Group I courses, and Group II courses. The Group I courses assure that students acquire a broad foundation in literary history and critical strategies. The Group II courses offer students the opportunity to explore in greater depth literary periods and literary themes that cross periods. In these courses, students will develop skills in reading, criticism, writing, and research.

The English Minor Requires 21 Credits Distributed As Follows:  

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 301: Critical Methods in the Study of Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

English minors must take ENGL 301 before they take other 300- or 400-level English courses. We strongly recommend that students take ENGL 301 during the sophomore year.

Group I Courses  

English minors must take two courses from two different categories in the Group I listings. These courses are to be taken at the 200- or 300-level. The Group I categories are:

- Literary and Cultural History (one course)  
- Literary, Linguistic, or Rhetorical Analysis (one course)  
- Literature of African Americans, Peoples of Color, Women, and/or Lesbians, Gays, and Bisexuals (one course)
**Group II Courses**

English minors must take four courses at the 300 and 400 level from the Group 2 listings. At least two of these courses must be taken at the 400 level. These four courses should be distributed in the following ways:

- Writing before 1800 - two courses
- Modern British, Anglophone, and/or Postcolonial writing (after 1800) - one course
- American, African American, and/or U.S. Ethnic Writing - one course

*One (and only one) Group II distributional requirement may be satisfied with any English course at the 300 or 400 level, other than ENGL 386 and ENGL 388.

**English and English Education Double Major**

In conjunction with the College of Education, the English Department offers a special 125-credit program for students wishing to double major in English and English Education, allowing them to earn a certificate to teach English at the secondary level. For a list of requirements, contact the Office of Undergraduate Studies (2115 SQH, 301-405-3825).

**Advising**

Academic Advising is available throughout the year in 2115 Susquehanna Hall. Departmental academic advising is mandatory for all majors each semester. Students should check Testudo for their registration date and schedule an advising appointment at least one week in advance. The department also offers internship and career advising. Advising appointments can be made by calling (301) 405-3825 or by visiting the English Undergraduate Office in 2115 Susquehanna Hall.

**Internships**

The department both sponsors internships and offers credit for outside pre-professional internships. Students must have completed their Professional Writing requirement and have a 2.5 overall GPA to be eligible for English Department internship credit. For more information, please make an appointment with our Internship Advisor by calling (301) 405-3825.

**Honors Program**

The English Honors Program offers lively and challenging seminars, the opportunity to do a long-term project in an area of special interest, and the sort of intellectual and literary community that you might find at a small liberal arts college. Students work closely with faculty members and peers in seminars and on a senior project. Interested students should ask for detailed information from an English Department advisor as early as possible in their college careers.

**The Writing Center**

The Writing Center, 0125 Taliaferro, 301-405-3785, provides free tutorial assistance to students with writing assignments. Appointments are recommended, but walk-ins are welcome based on availability of tutors. Students, faculty, and staff with questions about punctuation, sentence structure, word choice, or documentation can call the Writing Center's Grammar Hotline at 301-405-3787.

**Student Societies and Professional Organizations**
The English Department hosts two undergraduate student organizations: Sigma Tau Delta (The English Honor Society) and the English Undergraduate Association. Sigma Tau Delta is an international honor society and is open to English majors and minors. To be eligible to join Sigma Tau Delta, you must have a "B" average in your English courses with 15 completed English credits (not including ENGL 101). Overall, you must have completed 45 university credits with a cumulative GPA of 3.0 or higher. Our department's chapter has sponsored events with faculty speakers, faculty reading events, book and bake sales, and social events at local theaters. The English Undergraduate Association (EUA) is open to all students, majors and non-majors. Each year the activities reflect the interests and personalities of the students who are involved in the organization. Typically, students in EUA organize special events, support departmental initiatives, provide a forum for ideas, create community, and in general have fun. If you are interested in being involved with either of these student groups, please contact the English Undergraduate Office, 2115 Susquehanna Hall, 301-405-3825.

**Scholarships and Financial Assistance**

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

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Entomology (ENTM)

College of Chemical and Life Sciences
4112 Plant Sciences Building, 301-405-3911
www.entm.umd.edu
Chair: C. Mitter (Prof & Chair)
Director: B. Kent (Inst & Dir)
Professors: P. Barbosa, A. Brown, R. Denno, M. Ma, M. Palmer (Prof & Dir), M. Raupp (Prof & Assoc Dean), J. Regier, R. StLeger, B. Thorne (Prof & Dir), S. Via
Assistant Professors: M. Neel, J. Wang
Lecturers: L. Ries (Res Assoc)
Adjunct Assistant Professors: G. Brust
Professors Emeriti: W. Bickley, J. Davidson, F. Harrison, J. Jones, J. Linduska, R. Menzer, A. Steinhauer, F. Wood
Visiting Faculty: S. Cho (Res Assoc, Visit Assoc Prof)

Requirements for the Major

Undergraduate students interested in Entomology should declare the General Biology specialization within the Biological Sciences Program (see separate listing). Students should also contact the Entomology Director of Undergraduate Studies for information on pursuing a career in Entomology.

Requirements for Specialization
See the Biological Sciences Program listing in this catalog, or contact the Entomology Director of Undergraduate Studies for the General Biology requirements.

Advising

Advising is mandatory in the Biological Sciences Program. The Department of Entomology faculty coordinate and advise students in the General Biology (GENB) specialization. Contact the Department of Entomology for information about advising or to schedule an appointment with the Entomology Director of Undergraduate Studies. For advising on other Biological Sciences Program specializations, see the Biological Sciences Program listing in this catalog.

Undergraduate Research Experiences

Students in the Biological Sciences Program can engage in research with Entomology faculty either in departmental or off-campus facilities. Contact the Entomology Director of Undergraduate Students for more information.

Honors Program

The Entomology Honors Program provides the opportunity for highly motivated and academically qualified undergraduates to engage in original, independent research under the guidance of an Entomology faculty mentor. The program is open to all Biological Science Program students who have (1) junior standing (including at least twelve credits within the major), (2) a minimum overall GPA and major courses GPA of 3.2, and (3) a Department of Entomology faculty member who has agreed to serve as their mentor. Contact the Entomology Honors Director, Dr. William Lamp (lamp@umd.edu) for more information. Participants in the
Entomology Honors Program are eligible for the Ernest N. Cory Undergraduate Scholarship.

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Environmental Science and Policy (ENSP)

0102 Symons Hall, 301-405-8571
www.ensp.umd.edu
brjames@umd.edu or jbrown@deans.umd.edu
Director: B. James (Director), W. Whittemore (Associate Director)

Advising

Advising is mandatory each semester. Before registering, students should contact the Associate Director of ENSP to discuss the program requirements and options, and to explore their interests in possible areas of concentration.

Internships

Contact the program director at 301/405-8571 regarding ENSP 386 (Internship in Environmental Science and Policy).

Honors Program

Contact the program director for information on ENSP 499 (Honors in ENSP).
ENVIRONMENTAL SCIENCE AND TECHNOLOGY (ENST)

College of Agriculture and Natural Resources
1109 H.J. Patterson Hall, 301-405-1193
www.enst.umd.edu
kmonahan@umd.edu
Chair: F. Coale
Professors: F. Coale, R. Hill, B. James, R. Miller, M. Rabenhorst, D. Ross, T. Simpson, R. Weil, R. Weismiller, F. Wheaton
Associate Professors: A. Baldwin, G. Felton, P. Kangas, B. Momen, D. Tilley
Assistant Professors: J. Becker, J. McGrath, B. Needelman
Lecturers: P. Tamboli
Adjunct Assistant Professors: L. Adams, D. Fisher

The Major

Environmental Science and Technology is a new department at the University of Maryland that currently offers a B.S. in Natural Resources Management (NRMT) and a B.S. in Natural Resource Sciences with a concentration in Conservation of Soil, Water and Environment (NRSC). For information about Natural Resources Management please see section later in Chapter 7. Information regarding the Conservation of Soil, Water and Environment major and Soil Science minor appear under degree requirements and minor requirements below.

A proposed new major in Environmental Science and Technology (ENST) will be reviewed during the 2007-2008 academic year. Please check our website at www.enst.umd.edu for future updates on these exciting changes!

These majors prepare students for careers focusing on understanding the natural and built environments and resolving environmental problems and concerns for the benefit of humans and ecosystems. Specifically, the program encompasses impacts of human society on the natural environment, the effects of environmental conditions on humans and ecosystems, and designing solutions to sustainably improve environmental quality of air, water, soil, and biological communities.

Requirements for the Major

Curriculum in Natural Resources Sciences
Concentration in Soil, Water and Environment

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 131/132</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 101</td>
<td>Introduction to Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 393</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>MATH 113</td>
<td>College Algebra with Applications</td>
<td>3</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>ENST 200</td>
<td>Fundamentals of Soil Science</td>
<td>4</td>
</tr>
<tr>
<td>ENST 398</td>
<td>Seminar</td>
<td>1</td>
</tr>
<tr>
<td>PLSC 100</td>
<td>Introduction to Horticulture</td>
<td>4</td>
</tr>
<tr>
<td>PLSC 101</td>
<td>Introductory Crop Science</td>
<td></td>
</tr>
</tbody>
</table>

Note: A grade of C or better in the above courses is required
Applications and Breath (Select three of the following)  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENST 413</td>
<td>Soil and Water Conservation</td>
<td>3</td>
</tr>
<tr>
<td>ENST 415</td>
<td>GIS Application in Soil Science</td>
<td>3</td>
</tr>
<tr>
<td>ENST 423</td>
<td>Soil-Water Pollution</td>
<td>3</td>
</tr>
<tr>
<td>ENST 444</td>
<td>Remote Sensing of Agricultural &amp; Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>ENST 430</td>
<td>Wetland Soils</td>
<td>3</td>
</tr>
</tbody>
</table>

Advanced Soil Science (Select three of the following: 9-11 credits)  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENST 411</td>
<td>Principles of Soil Fertility</td>
<td>3</td>
</tr>
<tr>
<td>ENST 414</td>
<td>Soil Morphology,Genesis &amp; Classification</td>
<td>4</td>
</tr>
<tr>
<td>ENST 417</td>
<td>Soil Hydrology and Physics</td>
<td>3</td>
</tr>
<tr>
<td>ENST 421</td>
<td>Soil Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>ENST 422</td>
<td>Soil Microbiology</td>
<td>3</td>
</tr>
</tbody>
</table>

Practical Experience (select at least 2 credits)  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENST 308</td>
<td>Field Soil Morphology</td>
<td>1-3</td>
</tr>
<tr>
<td>ENST 389</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

Supporting Courses (select two of the following: 6 credits)  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREC 432</td>
<td>Introduction to Natural Resources Policy</td>
<td>3</td>
</tr>
<tr>
<td>BIOM 301</td>
<td>Introduction to Biometrics</td>
<td>3</td>
</tr>
<tr>
<td>ENBE 234</td>
<td>Principles of Erosion and Water Control and</td>
<td>1</td>
</tr>
<tr>
<td>ENBE 236</td>
<td>Design of Drainage Systems and</td>
<td>1</td>
</tr>
<tr>
<td>ENBE 237</td>
<td>Design of Irrigation Systems</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 451</td>
<td>Groundwater Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 452</td>
<td>Watershed and Wetland Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL 340</td>
<td>Geomorphology or</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Geomorphology</td>
<td>3</td>
</tr>
<tr>
<td>ENST 451</td>
<td>Water Quality: Field and Lab Analysis Methods</td>
<td>3</td>
</tr>
<tr>
<td>ENST 440</td>
<td>Crops, Soil and Civilization</td>
<td>3</td>
</tr>
<tr>
<td>ENST 441</td>
<td>Sustainable Agriculture</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 406</td>
<td>Forage Crops</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 407</td>
<td>Cereal and Oil Crops</td>
<td>3</td>
</tr>
</tbody>
</table>

Total CORE, NRSC and Conservation of Soil, Water & Environment Area  

University Electives  

Requirements for the Minor
The minor will provide students with a sophisticated understanding of the soil resources, its development, characteristics, and principles for its use and management. Building on a basic introduction to the broad field of soil science, the program is completed by adding four or five upper division soils courses balanced between underlying principles and field applications.

All courses presented for the minor must be passed with a grade of C or better. Declared majors in the Conservation of Soil, Water and Environment Area of Concentration of NRSC or the Land and Water option in ENSP may not also minor in Soil Sciences.

**Advising system for the minor:**
The ENST Department has mandatory advising for each of its major and minor programs. Students are required to meet with their advisor at least twice a year.

Soil Science Advisors: Dr. Ray Weil, Dr. Robert Hill

**Curriculum:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENST 200</td>
<td>Fundamentals of Soil Science</td>
<td>4</td>
</tr>
</tbody>
</table>

Select 13 credits from the ten courses listed below. At least two courses must be from Group A.

**Group A - Underlying Principles**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENST 411</td>
<td>Principles of Soil Fertility</td>
<td>3</td>
</tr>
<tr>
<td>ENST 414</td>
<td>Soil Morphology, Genesis &amp; Classification</td>
<td>4</td>
</tr>
<tr>
<td>ENST 417</td>
<td>Soil Hydrology and Physics</td>
<td>3</td>
</tr>
<tr>
<td>ENST 421</td>
<td>Soil Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>ENST 422</td>
<td>Soil Microbiology</td>
<td>3</td>
</tr>
</tbody>
</table>

**Group B - Applications**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENST 308</td>
<td>Field Soil Morphology</td>
<td>1</td>
</tr>
<tr>
<td>ENST 413</td>
<td>Soil and Water Conservation</td>
<td>3</td>
</tr>
<tr>
<td>ENST 415</td>
<td>GIS Applications in Soil Science</td>
<td>4</td>
</tr>
<tr>
<td>ENST 423</td>
<td>Soil-Water Pollution</td>
<td>3</td>
</tr>
<tr>
<td>ENST 430</td>
<td>Wetland Soils</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:** A minimum of 17 credits are required to complete this minor.

Students attempting this minor will need MATH 113 or higher. There are a total of 17 required credits in ENST classes, plus a 4 credit CHEM prerequisite. Depending on the pre-requisites needed and the optional courses selected and pre-requisites, students will take between 17 and 24 credits.

This minor is particularly relevant to students majoring in Agricultural and Resource Economics, Geology, Geography, Environmental Science and Policy, Biology, Biochemistry, Chemistry, Anthropology, Architecture, Agriculture Science and Technology, Horticulture and Crop Production, Animal Science, Landscape Architecture, Parks and Planning, Bioengineering, Civil Engineering, Environmental Engineering, Environmental Science and Technology, Natural Resources Management.

**Advising**

Please contact Kimberly Monahan at 301-405-1193 or kmonahan@umd.edu for more information.

**Scholarships and Financial Assistance**

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: [www.financialaid.umd.edu](http://www.financialaid.umd.edu)

[Return to top](#)
Family Studies (FMST)

College of Health and Human Performance
1204 Marie Mount Hall, 301-405-3672
www.umd.edu/fmst

Faculty
Chair: S. Koblinsky
Professors: E. Anderson, N. Epstein, S. Hofferth
Associate Professors: B. Braun, J. Kim, L. Leslie, M. Mokhtari, S. Randolph, S. Walker, J. Wallen
Assistant Professors: K. Roy, J. La Taillade
Instructors: C. Werlinich
Affiliate Professors: J. Davis
Professors Emeriti: N. Gaylin (Prof Emeritus), N. Myricks (Prof Emeritus), R. Rubin (Assoc Prof Emeritus)
Visiting Faculty: F. Goldscheider (College Park Professor)

The Major

The Family Studies major focuses on the study of families and the problems they face in contemporary society. The major offers excellent training in scientific methods to understand family development, behavior, strengths and challenges. Students learn to describe, explain, and improve the quality of family life through education, applied research, policy analysis, and human services program management. Majors acquire skills in writing, speaking, and computing across the Family Studies curriculum and complete an empirical research project prior to graduation.

The Family Studies major prepares students for careers in social work, human services, family therapy, family life education, public health, policy analysis, and family mediation. A wide variety of employment opportunities exist for Family Studies graduates in direct service and management positions in government, non-profit, and private agencies. The major also provides excellent preparation for graduate study in family studies, marriage and family therapy, social work, law, public health, psychology, human resource management, and other social science disciplines.

Courses offered by this department may be found under the following acronym: FMST.

Requirements for the Major

<table>
<thead>
<tr>
<th>Required Courses - Major subject area</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A grade of C or better is required in these courses.</td>
<td></td>
</tr>
<tr>
<td>FMST302 Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>FMST330 Family Theories and Patterns</td>
<td>3</td>
</tr>
<tr>
<td>FMST332 Children in Families</td>
<td>3</td>
</tr>
<tr>
<td>FMST381 Poverty, Affluence, and Families</td>
<td>3</td>
</tr>
<tr>
<td>FMST383 Delivery of Human Services to Families</td>
<td>3</td>
</tr>
<tr>
<td>FMST432 Adult Development and Aging in Families</td>
<td>3</td>
</tr>
<tr>
<td>FMST477 Internship and Analysis in Family Studies</td>
<td>3</td>
</tr>
<tr>
<td>FMST487 Legal Aspects of Family Problems</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Courses - Departmental
Internships

All Family Studies majors are required to complete an internship experience during their senior year. The internship program is designed to integrate department and other coursework with a real-time work experience. In addition to a 120-hour semester-long field placement, students are required to attend a weekly capstone seminar (FMST 477). Students in the seminar integrate classroom theory with their field placement and share work-related activities, broadening their exposure to work in the discipline of Family Studies and their knowledge of specific career opportunities for FMST graduates. The internship course is open to all FMST majors who have completed FMST 330 and FMST 383 plus a minimum of six additional credits of FMST coursework.

Honors Program

The FMST Honors Program is designed to provide academically talented students with a more advanced and enriching educational experience in Family Studies. The Honors Program gives students an opportunity to participate in scholarly independent study, interact with FMST faculty, and examine a range of intellectual topics in greater depth than is possible in the traditional Family Studies program.

Any FMST major who meets the following criteria is eligible for the Honors Program:

- An overall GPA of 3.3 with at least 45 credits completed
- Completion of:
  - FMST290 with a grade of "B" or better and an additional three credits in FMST
  - OR
  - ECON200 and an additional six credits in FMST
- A GPA of 3.5 in all FMST courses

Additional Courses Required of all majors

All students must earn a grade of C or better in all courses applied toward completion of the major.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC100</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>FMST290</td>
<td>Family Economics</td>
<td></td>
</tr>
<tr>
<td>ECON200</td>
<td>Principles of Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECON201</td>
<td>Principles of Macroeconomics</td>
<td></td>
</tr>
<tr>
<td>EDMS451</td>
<td>Introduction to Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT100</td>
<td>Elementary Statistics and Probability</td>
<td>3</td>
</tr>
<tr>
<td>SOCY100</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOCY105</td>
<td>Introduction to Contemporary Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>COMM100</td>
<td>Foundations of Speech Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM107</td>
<td>Speech Communication: Principles and Practices</td>
<td></td>
</tr>
<tr>
<td>COMM125</td>
<td>Introduction to Interpersonal Communication</td>
<td></td>
</tr>
</tbody>
</table>
Students meeting the criteria and wishing to participate in the Honors Program must apply three semesters (not including summer) prior to graduation. Application forms are available from the FMST Honors Program Coordinator.

**Student Societies and Professional Organizations**

The University of Maryland Council on Family Relations (UMCFR) is a student chapter of the National Council on Family Relations, a professional organization for family researchers, educators, and practitioners. The organization provides an opportunity for students to explore family issues, meet fellow students, and prepare for careers in teaching, research, policy analysis, or direct service to families. UMCFR is open to all undergraduate and graduate Family Studies students. For more information, please contact the FMST Undergraduate Coordinator.
Undergraduate Catalog 2007-2008

Departments, Majors, and Programs

Finance (BMGT)

Faculty

The Major

Admission to the Major

Requirements for the Major

FINANCE (BMGT)

The Robert H. Smith School of Business
1570 Van Munching Hall, 301-405-2286
www.rhsmith.umd.edu/undergrad
Chair: A. Triantis
Associate Professors: D. Avramov, N. Prabhala, A. Triantis, R. Wermers
Assistant Professors: M. Cichello (Tyser Teaching Fellow), S. Heston, G. Hoberg, S. Hvidkjaer, D. Kadyrzhanova, E. Kiss, M. Loewenstein, G. Skoulakis, S. White (Tyser Teaching Fellow), G. Willard
Visiting Faculty: A. Falato, D. Lamdin

The Major

Finance encompasses:
1. Corporate finance: The financial management of corporations
2. Investments: The management of securities and portfolios
3. Financial institutions and markets: The management of financial institutions and the study of their role in the economy

The Finance curriculum is designed to familiarize the student with the institutions, theory, and practice involved in the allocation of financial resources within the private sector. It provides an educational foundation for careers involving corporate financial analysis and management, investment analysis and portfolio management, investment banking, risk management, commercial banking, and international finance; it also provides a foundation for graduate study in business administration, economics, and law.

Admission to the Major

See Robert H. Smith School of Business entry in chapter 6 for admission requirements.

Requirements for the Major

Course requirements for the junior-senior curriculum concentration in Finance are as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT343</td>
<td>Investments</td>
<td>3</td>
</tr>
<tr>
<td>BMGT440</td>
<td>Advanced Financial Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Three of the following courses:</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>BMGT443</td>
<td>Applied Equity Analysis and Portfolio Management</td>
<td></td>
</tr>
<tr>
<td>BMGT444</td>
<td>Futures and Options Contracts</td>
<td></td>
</tr>
<tr>
<td>BMGT445</td>
<td>Banking and Financial Institutions</td>
<td></td>
</tr>
<tr>
<td>BMGT446</td>
<td>International Finance</td>
<td></td>
</tr>
<tr>
<td>BMGT447</td>
<td>Internship and Research in Finance</td>
<td></td>
</tr>
<tr>
<td>BMGT498</td>
<td>Special Topics in Business and Management (Finance)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>One of the following courses:</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>BMGT310</td>
<td>Intermediate Accounting</td>
<td></td>
</tr>
<tr>
<td>BMGT332</td>
<td>Operations Research for Management Decisions</td>
<td></td>
</tr>
<tr>
<td>BMGT430</td>
<td>Linear Statistical Models in Business</td>
<td></td>
</tr>
<tr>
<td>BMGT434</td>
<td>Introduction to Optimization</td>
<td></td>
</tr>
</tbody>
</table>

Total BMGT: 18
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON330</td>
<td>Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>One of the following:</strong></td>
<td>3</td>
</tr>
<tr>
<td>ECON305</td>
<td>Intermediate Macroeconomic Theory and Policy</td>
<td></td>
</tr>
<tr>
<td>ECON306</td>
<td>Intermediate Microeconomic Theory</td>
<td></td>
</tr>
<tr>
<td>ECON340</td>
<td>International Economics</td>
<td></td>
</tr>
<tr>
<td>ECON402</td>
<td>Macroeconomic Models and Forecasting</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total ECON</strong></td>
<td>6</td>
</tr>
</tbody>
</table>

In addition to the major requirements listed above, please consult Chapter 6 or [www.rhsmith.umd.edu](http://www.rhsmith.umd.edu) for a listing of additional Smith School degree requirements that apply to all Smith School majors.

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Fire Protection Engineering (ENFP)

A. James Clark School of Engineering
3106 JM Patterson Building, 301-405-3992
www.fpe.umd.edu
Chair: M. DiMarzo
Professors: V. Brannigan, J. Quintiere
Associate Professors: J. Milke (Associate Chair), F. Mowrer, A. Trouve
Assistant Professors: A. Marshall, P. Sunderland
Adjunct Professors: R. Roby, J. Torero
Professors Emeriti: J. Bryan, S. Spivak

The Major

Fire Protection Engineering is concerned with the applications of scientific and technical principles to the growth, mitigation, and suppression of fire. This includes the effects of fire on people, on structures, on commodities, and on operations. The identification of fire hazards and their risk, relative to the cost of protection, is an important aspect of fire safety design.

The fire protection engineering student receives a fundamental engineering education involving the subjects of mathematics, physics, and chemistry. The program builds on other core engineering subjects of materials, fluid mechanics, thermodynamics and heat transfer with emphasis on principles and phenomena related to fire. Fluid mechanics includes applications to sprinkler design, suppression systems, and smoke movement. Heat transfer introduces the student to principles of evaporation for liquid fuels. The subject of combustion is introduced involving premixed and diffusion flames, ignition and flame spread, and burning processes. Laboratory experience is gained by being exposed to standard fire tests and measurements. Design procedures are emphasized for systems involving suppression, detection, alarm, and building safety requirements. The background and application of codes and standards are studied to prepare the student for practice in the field. System concepts of fire safety and methods of analysis are presented. A senior design or research project is required which gives the student an opportunity to explore issues beyond the normal classroom environment.

Program Objectives

The educational objectives of the undergraduate program in Fire Protection Engineering are to produce graduates who:

1. have the technical knowledge and skills needed to practice fire protection engineering in a variety of modern professional settings;

2. have the basic competencies needed to pursue advanced studies in fire protection engineering and related fields;

3. have the ability to understand and communicate the societal, environmental, economic and safety implications of engineering decisions;

4. are prepared to attain professional certification and licensure; and

5. appreciate the need to maintain continual professional competency and to practice ethically.

The practice of fire protection engineering has developed from the implementation and
interpretation of codes and standards directed at fire safety. These safety codes contain
technical information and prescriptions derived from experience and research. Research has
also led to quantitative methods to assess aspects of fire and fire safety. Thus, fire protection
engineers need to be versed in the current technical requirements for fire safety and in the
scientific principles that underlie fire and its interactions.

**Admission to the Major**

Admission requirements are identical to those set by the A. James Clark School of Engineering.
(See A. James Clark School of Engineering section in chapter 6.)

**Requirements for the Major**

In general, the curriculum is designed to give the student a grounding in the science and
practice of fire safety. The field touches on many disciplines and its scientific basis is expanding.
It is an engineering discipline that is still growing, and offers a variety of excellent career
opportunities. These cover a wide spectrum involving safety assessment reviews, hazards
analysis and research, loss prevention and regulatory issues.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Sem</td>
<td>Second Sem</td>
</tr>
</tbody>
</table>

### Freshman Year

<table>
<thead>
<tr>
<th>Course</th>
<th>First Sem</th>
<th>Second Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE Program Requirements (Incl ENGL 101)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>CHEM135, General Chemistry for Engineers</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MATH140/141, Calculus I / Calculus II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ENES100, Introduction to Engineering Design</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENES102, Statics</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHYS161, General Physics I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ENFP108, Hot Topics in Fire (optional)</td>
<td>(1)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13</strong></td>
<td><strong>16</strong></td>
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### Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>First Sem</th>
<th>Second Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE Requirements (Incl. Diversity Courses)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MATH240, Linear Algebra, OR</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MATH241, Calculus III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH246, MATH 246 Differential Equations</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHYS260/261, General Physics II</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PHYS270/271, General Physics III</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ENES220, Mechanics of Materials</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENES221, Dynamics</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ENFP251, Introduction to Fire Protection Engineering</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENFP255, Fire Alarm and Special Hazards Design</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td><strong>16</strong></td>
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</table>

### Junior Year

<table>
<thead>
<tr>
<th>Course</th>
<th>First Sem</th>
<th>Second Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE Requirements</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>ENME320, Thermodynamics*</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENFP300, Fire Protection Fluid Mechanics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENFP310, Water Based Fire Protection Systems Design</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3</strong></td>
<td></td>
</tr>
</tbody>
</table>
ENFP312 Heat and Mass Transfer 3
ENFP320 Fire Assessment Methods and Laboratory 4
ENFP350 Professional Development Seminar 1
ELECTIVE General Elective - see advisor for details 3
ELECTIVE Approved Electives (STAT, ENFP, ENES, ENxx)** 3 3

Total 16 16

### Credits

<table>
<thead>
<tr>
<th>Senior Year</th>
<th>First Sem</th>
<th>Second Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE</td>
<td>CORE Requirements 3</td>
<td></td>
</tr>
<tr>
<td>ENFP405</td>
<td>Structural Fire Protection 3</td>
<td></td>
</tr>
<tr>
<td>ENFP411</td>
<td>Fire Protection Hazard Analysis 3</td>
<td></td>
</tr>
<tr>
<td>ENFP415</td>
<td>Fire Dynamics 3</td>
<td></td>
</tr>
<tr>
<td>ENFP416</td>
<td>Problem Synthesis and Design 3</td>
<td></td>
</tr>
<tr>
<td>ENFP421</td>
<td>Life Safety and Risk Analysis 3</td>
<td></td>
</tr>
<tr>
<td>ENFP425</td>
<td>Fire Modeling 3</td>
<td></td>
</tr>
<tr>
<td>ELECTIVES</td>
<td>Approved Electives (STAT, ENFP, ENES, ENxx)** 3 3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15 12</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours 121

* ENME 320 is for non-ME majors. ENME 232 is usually for ME majors, but may be substituted with permission.
** Approved electives must include the following:
  A minimum of 3 credits (one course) of an approved ENFP elective
  A minimum of 3 credits (one course) in either Statistics, Mathematics or Applied Math

Note: An additional chemistry course(s) in Organic, Analytical or Physical Chemistry is recommended. See the department for an additional listing of approved electives.

### Advising

Mandatory advising by department faculty is required of all students every semester. Students schedule their advising appointments in the department Office, 3rd floor of J.M. Patterson.

### Fieldwork Opportunities

Part-time and summer professional experience opportunities and paid internship information is available in the department Office, 3rd floor, J.M. Patterson. See your advisor or the Undergraduate Chair: J. Milke, 301-405-3992.

### Internships

Part-time and summer professional experience opportunities and paid internship information is available on the department website, [www.fpe.umd.edu](http://www.fpe.umd.edu) or in the department Office, 3rd floor, J.M. Patterson. See your advisor or the Undergraduate Chair: J. Milke, 301-405-3992.

### Student Societies and Professional Organizations

The departmental honor society, Salamander, is open to academically eligible junior and senior students. The University of Maryland student chapter of the Society of Fire Protection Engineers is the professional society for all interested students in the department. Student membership in the National Fire Protection Association is available too. Information on these organizations may be obtained from current members in the student lounge, 3rd floor, J.M. Patterson.
Scholarships and Financial Assistance

Numerous scholarships and grants are available to students in the department from organizational and corporate sponsors. Information is available on eligibility, financial terms and retention criteria in the department Office. The majority of the scholarships are for junior and senior students, but some scholarships are available for first- and second-year students. Also refer to our web site at www.fpe.umd.edu.

Awards and Recognition

Academic achievement awards are sponsored by the department and the student professional-honor societies. These awards are presented at the annual A. James Clark School of Engineering Honors Convocation. Eligibility criteria for these awards are available in the department Office. Qualified students in the department are eligible for participation in the A. James Clark School of Engineering honors program.

Return to top
French and Italian (FRIT)

For information consult the School of Languages, Literatures, and Cultures elsewhere in chapter 7.

Return to top
French Language and Literature (FREN)

For information consult the School of Languages, Literatures, and Cultures elsewhere in chapter 7.

Return to top
Geography (GEOG)

College of Behavioral and Social Sciences
2108 LeFrak Hall, 301-405-4073
www.geog.umd.edu
geog-advise@umd.edu
Chair: J. Townshend
Associate Professors: C. Dibble, A. Kleidon, N. Zhou
Lecturers: A. Eney, E. Kinerney, R. Luna (Fac Res Asst), M. Zlatic
Adjunct Professors: R. Izaurralde, N. Rosenberg, C. Tucker, D. Williams
Adjunct Associate Professors: J. Morisette
Professors Emeriti: R. Harper, D. Thompson, J. Wiedel

The Major

How do you see the future? More of everything: food, parks, leisure, personal electronic devices, peace between the nations? Or more people, new diseases, traffic gridlock, and starvation? Will there still be crabs and oysters from the Chesapeake Bay?

The world is changing at unprecedented rates, primarily as a result of human actions. Opportunities for increased well-being of humans and the environment abound. On the other hand competition for resources such as fresh water and oil is reaching crisis proportions.

The future of humanity depends on skillful management of our environment by planning the social, urban, suburban and rural settings where we work, live and play. Expert care of the environment is needed to maintain supplies of food, natural products, water, and the other resources on which life depends. New insights into the social, economic and urban environment can help control poverty and crime.

Geography concerns the relations between people and the natural world, the effects of ecosystems on human beings and vice versa, the choices people make, the effects of past actions on people today, and the effects of today’s choices on future generations.

Program Learning Outcomes

Having completed the degree program, students should have acquired the following knowledge and skills:

1. Possess an understanding of the nature of the physical systems and processes of the Earth’s environment and their interactions.
2. Understand the nature of the geographical approach and its value in understanding human-environment relationships.
3. Know the methods and techniques of data collection, display and analysis used in the study of environmental systems.

Academic Programs and Departmental Facilities

The Geography Department has two 25-seat computer teaching laboratories that are used in undergraduate coursework, particularly in GIS/Remote Sensing courses. There are different types of equipment for field research and remote sensing, and Global Positioning Systems (GPS) are
also available.

**Requirements for the Major**

Within any of the specializations available in the geography major program it is possible for students to adjust their programs to fit their individual interests. The geography major totals 35 semester hours. In addition to the 35 semester hours, the geography major is required to take an additional 15 semester hours of supporting course work outside of the department. The hours can be either in one department or in an area of specialization. An area of specialization requires that a written program of courses be reviewed and placed on file by the department advisor. See Advising Office, Lefrak 2108, 301-405-4073, e-mail geog-advise@umd.edu, web page: www.geog.umd.edu. Supporting courses generally are related to the area of specialty in geography. The pass-fail option is not applicable to major or supporting courses. A minimum grade of C in each course is required for major and supporting courses.

**Geography Major**

The required courses for geography majors are as follows:

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG201</td>
<td>Geography of Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG202</td>
<td>The World in Cultural Perspective</td>
<td>3</td>
</tr>
<tr>
<td>GEOG211</td>
<td>Geography of Environmental Systems Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOG212</td>
<td>The World in Cultural Perspective Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td>Upper-level physical geography course</td>
<td>3</td>
</tr>
<tr>
<td>HUMAN</td>
<td>Upper-level physical human course</td>
<td>3</td>
</tr>
<tr>
<td>TECHNIQUE</td>
<td>Upper-level geographic technique course</td>
<td>3</td>
</tr>
</tbody>
</table>

At least one upper-level course in physical geography, human geography and geographic technique is required regardless of the specialty of the individual student's program. These courses build on the initial base provided by the Primary Courses, and also serve as the basis for selection of upper-level geography courses.

**ELECT**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>300/400</td>
<td>Upper-level geography electives</td>
<td>15</td>
</tr>
<tr>
<td>GEOG306</td>
<td>Introduction to Geographic Methods for the Geographic Environmental Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits:**

35

**Supporting Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPPORT</td>
<td>Supporting courses approved by GEOG advisor</td>
<td>15</td>
</tr>
</tbody>
</table>

**Introduction to Geography**

The 100-level geography courses are general education courses for persons who have had no previous contact with the discipline in high school or for persons planning to take only one course in geography. They provide general overviews of the field or in one of its major topics. Credit for these courses is not applied to the major.

**Related Programs**

**Geographic Information Science/Computer Cartography Major**

The Geography Department offers an important area of specialization: GIS and Computer Cartography. The Bachelor of Science degree program in Geographic Information Science and Computer Cartography is designed to give students the technical skills needed to acquire, manage and analyze very large amounts of geographic data. Students will get extensive computer training in digital processing of remote sensing observations and cartographic vector data, spatial analysis, and the display of information products. Almost everything we do
involves geographic information, from deciding where to live and travel, to environmental monitoring and urban planning. Influenced by computer technology, the academic disciplines of geographic information science such as remote sensing, geographic information systems (GIS), and computer cartography have evolved dramatically in the past few decades. Remote sensing is the science of obtaining geographic information from aircraft and satellites. GIS technology manages and analyzes different forms of digital geographic data, and this field has been growing at an extraordinary rate. Computer cartography has revolutionized traditional cartography to vastly improve map making and visualization of geographic information in a multimedia environment.

The required courses for GIS majors are as follows:

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG201</td>
<td>Geography of Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG202</td>
<td>The World in Cultural Perspective</td>
<td>3</td>
</tr>
<tr>
<td>GEOG211</td>
<td>Geography of Environmental Systems Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>GEOG212</td>
<td>The World in Cultural Perspective Lab</td>
<td>1</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td>Upper-level physical geography course</td>
<td>3</td>
</tr>
<tr>
<td>HUMAN</td>
<td>Upper-level physical human geography course</td>
<td>3</td>
</tr>
<tr>
<td>GEOG306</td>
<td>Introduction to Geographic Methods for the Geographic Environmental Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECT 300.400**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG372</td>
<td>Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GEOG373</td>
<td>Geographic Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG375</td>
<td>Computer Cartography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG472</td>
<td>Remote Sensing: Digital Processing and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GEOG473</td>
<td>Geographic Information Systems and Spatial Analysis</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Credits 35**

**Supporting Courses**

Supporting courses approved by GEOG advisor, 12

One from

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH220</td>
<td>Elementary Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>MATH140</td>
<td>Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

Supporting area courses must be taken from a list provided by the department. All math programs should be approved by a departmental advisor.

**Geography and Social Studies Education Double Major**

In conjunction with the Department of Curriculum and Instruction, the Geography Department offers a special 121 credit hours program for students wishing to double major in Geography and Social Studies Education - Geography Concentration, allowing them to teach geography at the secondary level. Early examination of requirements is encouraged to reduce the number of additional hours required. In addition to the Geography Departments required credits, the program requires 28 credit hours of course work in history and the social sciences. For a list of requirements, contact the Geography Undergraduate Advising Office. Requirements are also listed under the Department of Curriculum and Instruction Social Studies Education - Geography Concentration double major option.

**Requirements for the Minor**

**Minor in Geographic Information Science (GIS)**

See undergraduate advising office for more information: LeFrak Hall 2108, 301-405-4073.
Required Courses

One from 3-4

GEOG201/211 Geography of Environmental Systems AND Geography of Environmental Systems Laboratory

GEOG202 The World in Cultural Perspective

GEOG306 Introduction to Geographic Methods for the Geographic Environmental Sciences 3

GEOG372 Remote Sensing 3

GEOG373 Geographic Information Systems 3

One from 3

GEOG472 Remote Sensing: Digital Processing and Analysis

GEOG473 Geographic Information Systems and Spatial Analysis

GEOG475 Computer Cartography

Total Credits 15-16

Fieldwork Opportunities

GEOG 328 (Summer): The Geography of Puerto Rico

This course builds on the resounding success of last year's course. Students will explore and truly will comprehend why they call Puerto Rico "the island of enchantment." Students will explore San Juan the historic capital city and Ponce a deep water port. El Yunque, the only tropical rain forest within the U.S. Park Service's system. The Island of Vieques where the class will see first hand and active sea turtle nesting grounds and a bio-luminescent bay.

GEOG 328 (Winter): The Geography of the Southern Caribbean

This course offers an unique and challenging "hands-on" study of Grenada and the Grenadines during the Winter term. The best way to study the Grenadines is by sailing vessel. The Grenadines are the "land of eternal summer," making them one of the most exclusive sailing grounds in the world. Students will be able to visit not only Grenada but St. Lucia, St. Vincent, Tobago Cays.

Internships

The department offers a one-semester internship program for undergraduates (GEOG 384 and 385). The goal of the program is to enhance undergraduates' intellectual growth and career opportunities. The internship provides an opportunity for the students to expand their understanding of the field by linking the theoretical aspects of geography acquired in the classroom to the applied aspects operating in a practice situation. The internship program is open only to geography juniors and seniors. All interns must have completed the following prerequisites: GEOG 201/211, 202/212, 305 or its equivalent, and the upper-level writing requirement. An application form from the undergraduate geography advisor must be submitted one semester before the internship is desired. See undergraduate advising office, 2108 LeFrak Hall, 301-405-4073 for information.

Honors Program

Students admitted to the Honors program engage in independent research under the guidance of an individual faculty member. Students are eligible upon completion of 30 credits of geography courses including the required courses. Honors students will need to register for 12
credits of which they can substitute for formal coursework. Students must have a 3.2 overall GPA and a 3.5 GPA in Geography.

**Student Societies and Professional Organizations**

Gamma Theta Upsilon, the geography undergraduate organization, operates a program of student-sponsored talks and field trips.

[Return to top](#)
Geology (GEOL)

College of Computer, Mathematical and Physical Sciences
1115 Geology Building, 301-405-4365
www.geol.umd.edu

Faculty
Chair: M. Brown
Professors: P. Candela, L. Chang (Prof Emeritus), R. Rudnick, R. Walker, A. Wylie (Distinguished Scholar Teacher)
Associate Professors: A. Kaufman (Affil Assoc Prof), K. Prestegaard
Assistant Professors: A. Campbell, S. Hier-Majumder, A. Martin
Lecturers: E. Brabson, T. Centorbi, J. Merck
Affiliate Professors: A. Busalacchi (Prof & Dir), G. Helz (Res Prof), B. James (Prof & Dir, Affiliate Prof), D. Lathrop (Prof & Dir)
Affiliate Assistant Professors: N. Zeng (Aff Asst Prof, Assoc Prof)
Adjunct Professors: S. Sorensen, E. Zen
Adjunct Associate Professors: J. Bohike
Professors Emeriti: P. Stifel (Assoc Prof Emeritus)
Visiting Faculty: H. Becker (Visit Res Prof), M. Fogel (Visit Prof), T. Johnson (Visit Res Assoc), I. Lee (Visit Assoc Prof), W. Minarik (Visit Asst Res Sci), R. Moraes (Visit Res Assoc), J. Ryan (Visit Prof), P. Tomascak (Visit Asst Res Sci)

The Major

Geology is the science of the Earth. In its broadest sense, geology concerns itself with planetary formation and subsequent modification, with emphasis on the study of planet Earth. Geologists study Earth's internal and surficial structure and materials, the chemical and physical processes acting within and on the Earth, and utilize the principles of mathematics, physics, chemistry, and biology to understand our planet and its environments.

Geological Studies encompass all the physical, chemical, and biological aspects of Earth. Increasingly, geologists are taking a holistic approach in the collection and interpretation of data about the Earth, which means that the wider context of the geological sciences is broad and diverse. In studying the Earth as a system, we are concerned with geology and geophysics, hydrology, oceanography and marine science, meteorology and atmospheric science, planetary science, and soil science. A major in any relevant discipline can lead to a satisfying career within the geological sciences. In general, graduate training is expected for advancement to the most rewarding positions and for academic employment.

Program Objectives

Geologists are employed by governmental, industrial, and academic organizations. Geologists work in exploration for new mineral and hydrocarbon resources, as consultants on engineering and environmental projects, as teachers and researchers in universities, and in many other challenging positions. For many, the attraction of a career in geology is the ability to divide time between work in the field, the laboratory, and the office. Although the employment outlook within geology varies with the global economic climate, the long-range outlook is good. This is because our dwindling energy, mineral, and water resources, along with increasing concerns about natural hazards and environmental issues, present new challenges for geologists.

Program Learning Outcomes

The Geology Program at Maryland includes a broad range of undergraduate courses to accommodate both Geology majors and students within the Environmental Science and Policy Program. Within the Geology major, a requirement exists for a senior undergraduate research
project to be performed under the direction of a faculty advisor. This requirement provides invaluable experience in writing proposals and reports, gathering, analyzing and evaluating data, and delivering scientific talks. In addition, a Departmental Honors Program and a combined B.S./M.S. Program are available.

**Requirements for the Major**

**Requirements for the Geology Major, Professional Track**

The geology curriculum is designed to meet the requirements of industry, graduate school, and government. For the B.S. degree, the students are required to complete the departmental requirements (49 credits) and the supporting requirements (23/24 credits) in addition to the CORE (general education) Program requirements. The department requires that to receive a degree in Geology, students must have a grade of C or better in the required Geology Courses, and an average of C or better in the Supporting Courses.

Courses required for the B.S. in Geology are listed below. Some courses require field trips for which the students are expected to pay for room (if required) and board. Field camp is taken during the summer at institutions other than the University of Maryland, College Park, that offer camps approved by the department.

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CORE Program Requirements</strong>* 46</td>
</tr>
<tr>
<td><strong>Geology Courses</strong> 49</td>
</tr>
<tr>
<td>GEOL100/110 Physical Geology and Laboratory, OR 4</td>
</tr>
<tr>
<td>GEOL120/110 Environmental Geology and Lab</td>
</tr>
<tr>
<td>GEOL102 Historical Geology 4</td>
</tr>
<tr>
<td>GEOL322 Mineralogy 4</td>
</tr>
<tr>
<td>GEOL340 Geomorphology 4</td>
</tr>
<tr>
<td>GEOL341 Structural Geology 4</td>
</tr>
<tr>
<td>GEOL342 Stratigraphy and Sedimentation 4</td>
</tr>
<tr>
<td>GEOL393 Technical Writing 3</td>
</tr>
<tr>
<td>GEOL394 Research Problems 3</td>
</tr>
<tr>
<td>GEOL444 Low-Temperature Geochemistry, OR 4</td>
</tr>
<tr>
<td>GEOL445 High-Temperature Geochemistry</td>
</tr>
<tr>
<td>GEOL446 Geophysics, OR 3</td>
</tr>
<tr>
<td>GEOL472 Tectonics</td>
</tr>
<tr>
<td>GEOL451 Groundwater 3</td>
</tr>
<tr>
<td>GEOL423 Optical Mineralogy 3</td>
</tr>
<tr>
<td>GEOL443 Petrology 4</td>
</tr>
<tr>
<td>GEOL490 Field Camp 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Supporting Courses</strong> 23-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM131/132 Fundamentals of General Chemistry and Lab, OR 4</td>
</tr>
<tr>
<td>CHEM135/136 General Chemistry for Engineers and Laboratory</td>
</tr>
<tr>
<td>MATH140 Calculus I 4</td>
</tr>
<tr>
<td>MATH141 Calculus II 4</td>
</tr>
<tr>
<td>PHYS141 General Physics 4</td>
</tr>
<tr>
<td><strong>One of the following:</strong> 3-4</td>
</tr>
<tr>
<td>PHYS142 General Physics, OR</td>
</tr>
<tr>
<td>BIOM301 Introduction to Biometrics</td>
</tr>
<tr>
<td>GEOL Any of GEOL444, 445, 446 or 472 not already completed to meet the requirements above or any other 300 or 400 level Geology course not listed above.</td>
</tr>
</tbody>
</table>
Requirements for the Geology Major, Secondary Education Track

The Secondary Education Track in Geology leads to a B. S. Degree in Geology with special emphasis on course work that helps prepare the student for teaching at the secondary school level. Further coursework and student teaching are required for an education certification. This track also prepares the student for work as a geologist in government or industry, or for further graduate study, although students primarily intending to attend graduate school in Geology are advised to choose the Professional Track. Students seeking professional opportunities in secondary education are urged, also, to consult with advisors in the College of Education.

Relative to the professional Geology track, in the Secondary Education track, there is a reduction of two upper-level Geology requirements, but the addition of two Education courses and the option of an Atmospheric and Oceanic Science or Astronomy course. Further coursework in Education (including student teaching) will be required in order to obtain a Maryland State Teaching Certification. Although Geology is by nature interdisciplinary, it is recommended that students consider taking additional courses in Biology and the philosophy of science in order to add to their educational breadth. The department requires that to receive a degree in Geology, students must have a grade of C or better in the required Geology Courses, and a C average or better in the supporting courses.

Credits

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE Program Requirements</td>
<td>46</td>
</tr>
<tr>
<td>Departmental Requirements</td>
<td>45/47</td>
</tr>
<tr>
<td>Supporting Requirements</td>
<td>19/20</td>
</tr>
<tr>
<td>Education Requirements</td>
<td>6</td>
</tr>
</tbody>
</table>

**Geology Courses - One of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL100/110</td>
<td>Physical Geology and Laboratory, or Environmental Geology and Lab</td>
<td>4</td>
</tr>
<tr>
<td>GEOL102</td>
<td>Historical Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL322</td>
<td>Mineralogy</td>
<td>4</td>
</tr>
<tr>
<td>GEOL340</td>
<td>Geomorphology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL341</td>
<td>Structural Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL393</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>GEOL394</td>
<td>Research Problems (Capstone)</td>
<td>3</td>
</tr>
<tr>
<td>GEOL443</td>
<td>Petrology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL490</td>
<td>Geological Field Camp</td>
<td>6</td>
</tr>
</tbody>
</table>

**Three of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL212</td>
<td>Planetary Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL342</td>
<td>Stratigraphy and Sedimentation</td>
<td>4</td>
</tr>
<tr>
<td>GEOL/ AOSC375</td>
<td>Introduction to the Blue Oceans</td>
<td>3</td>
</tr>
<tr>
<td>GEOL444</td>
<td>Low-Temperature Geochemistry</td>
<td>4</td>
</tr>
</tbody>
</table>
Other Requirements for the Major

Combined B.S./M.S. in Geology

The Combined B.S./M.S. program is designed to permit a superior student to earn both the Bachelor's and the Master's degrees following five years of study. The combined program is an integrated experience of undergraduate and graduate work. Nine credits of graduate courses taken as an undergraduate can be counted towards both the B.S. and M.S. degrees. The master's thesis may be a continuation of work begun as part of the undergraduate senior thesis.
Acceptance into the Combined B.S./M.S. normally would occur after the end of the sophomore year. The minimum requirements for acceptance into this program are similar to those for the Geology Honors program and are:

1. An overall GPA of at least 3.0 at the end of the sophomore year and a GPA of 3.0 or better in all courses required for the major.

2. At least three letters of recommendation.

3. An essay or statement of purpose.

4. An interview with the undergraduate Honors Director and the Graduate Director.

The Combined B.S./M.S. program allows 9 credits of graduate courses (600-level or above) to be counted towards both the B.S. and M.S. degrees. A grade of "B" or better must be earned in each of these courses.

Continued progress in the program requires completion of the undergraduate curriculum, a GPA of 3.5 or better in GEOL 393 and GEOL 394, and maintenance of a 3.0 overall GPA and a GPA of 3.0 or better in all courses required for the major. The requirements for admission into the graduate program must also be met, including receiving acceptable scores in the General GRE exam, usually taken during the fall term of the senior year.

**Requirements for the Minor**

An undergraduate Minor recognizes concentrated study in a designated field in the College Of Computer, Mathematical, and Physical Sciences. The award of a Minor will be noted on the student's transcript at the time of graduation.

These minors may be earned by students not majoring in Geology and are administered by the Geology Undergraduate Studies Director. A grade of "C" or better must be earned in all courses required for the minor. See [www.geol.umd.edu](http://www.geol.umd.edu) for more information.

### Credits

#### Minor in Surficial Geology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL100/110</td>
<td>Physical Geology/Lab, OR</td>
<td>4</td>
</tr>
<tr>
<td>GEOL120/110</td>
<td>Environmental Geology/Lab</td>
<td>4</td>
</tr>
<tr>
<td>GEOL123</td>
<td>Causes and Implications of Global Change</td>
<td>3</td>
</tr>
<tr>
<td>GEOL340</td>
<td>Geomorphology</td>
<td>4</td>
</tr>
<tr>
<td>Two from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOL342</td>
<td>Sedimentation and Stratigraphy</td>
<td>4</td>
</tr>
<tr>
<td>GEOL451</td>
<td>Groundwater</td>
<td>3</td>
</tr>
<tr>
<td>GEOL452</td>
<td>Watershed and Wetland Hydrology</td>
<td>3</td>
</tr>
<tr>
<td>GEOL331</td>
<td>Principles of Paleontology</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Minor in Earth Material Properties

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL100/110</td>
<td>Physical Geology/Lab, OR</td>
<td>4</td>
</tr>
<tr>
<td>GEOL120/110</td>
<td>Environmental Geology/Lab</td>
<td>4</td>
</tr>
<tr>
<td>GEOL322</td>
<td>Mineralogy</td>
<td>4</td>
</tr>
<tr>
<td>Two from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOL341</td>
<td>Structural Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL423</td>
<td>Optical Mineralogy</td>
<td>3</td>
</tr>
<tr>
<td>GEOL443</td>
<td>Petrology</td>
<td>4</td>
</tr>
<tr>
<td>GEOL445</td>
<td>High Temperature Geochemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Minor in Earth History
GEOL100/110 Physical Geology/Lab, OR 4
GEOL120/110 Environmental Geology/Lab 4
GEOL102 Historical Geology 4
Three from:
GEOL331 Principles of Paleontology 4
GEOL341 Structural Geology 4
GEOL342 Sedimentation and Stratigraphy 4
GEOL436 Principles of Biogeochemistry 3
GEOL437 Global Climate Change: Past & Present 3

Minors in Hydrology

GEOL110/110 Physical Geology/Lab, OR 4
GEOL120/110 Environmental Geology/Lab 4
GEOL322 Mineralogy 4
GEOL342 Sedimentation and Stratigraphy 4
Two from:
GEOL436 Principles of Biogeochemistry 3
GEOL444 Low Temperature Geochemistry 4
GEOL451 Groundwater 3
GEOL452 Watershed and Wetland Hydrology 3

All Geology minors are an appropriate disciplinary combination with Astronomy, Computer Science, Mathematics, or Physics majors within CMPS. The minors are also appropriate for majors outside the college with appropriate matches including, but not limited to:

Geography/Remote Sensing (Surficial Geology)

Engineering and Material Sciences (Earth Material Properties)

Evolutionary Biology and Physical Anthropology (Earth History)

Biology, Biological Diversity, and Ecology (Earth History, Hydrology)

Advising

The Geology Undergraduate Studies Director serves as the advisor for the geology majors, 1119 Geology Building, 301-405-4379. Students who have been away more than two years may find that due to curriculum changes the courses they have taken may no longer be adequate preparation for the courses required to complete the major. Students in this situation must meet with the Undergraduate Studies Director to make appropriate plans.

Honors Program

Admission to the Program is by invitation of the Honors Committee, normally at the end of the sophomore year and normally will be extended to students with an overall GPA of 3.0 or better and a GPA of 3.0 or better in all courses required for the major. Graduation with Honors normally requires completion of the curriculum, a GPA of 3.5 or better in GEOL 393H and GEOL 394H, and maintenance of a 3.0 overall GPA and a GPA of 3.0 or better in all courses required for the major. Maintenance of a GPA of 3.5 or above and a grade of A in both GEOL 393H and GEOL 394H will earn the distinction of Graduation with High Honors.

The curriculum for Honors in Geology follows the University Honors Program Track I: Thesis Option with a 15 credit minimum.

1. The requirement for upper division Honors courses will be met by a minimum of 9 hours as follows:
   a. GEOL 489H Recent Advances in Geology (3 credit hours), and
   b. 6 credit hours from the following:
i) a 3 credit hour graduate-level course approved by the Departmental Honors Committee,

ii) Honors Option project in a three or four credit hour upper-level course from the offerings in the Geology Department. The Honors Option Proposal must be approved by the Departmental Honors Committee, the professor teaching the course and the University Honors Program. A proposal must be approved by the Department and submitted to the University Honors Program by the 10th day of class in the semester in which the course will be taken and the project completed.

2. The research and thesis requirement will be met by completion of GEOL 393H and GEOL 394H with a GPA of 3.5 or better (6 credit hours).

Student Societies and Professional Organizations

Sigma Gamma Epsilon, National Honor Society for Earth Sciences, and the Geology Club.

Awards and Recognition

Bengt Svenonius Memorial Scholarship for graduating senior with the highest overall scholastic average; Fernow Memorial Faculty Field Camp Awards for geology majors to attend geology summer camp; Sigma Gamma Epsilon Award for a senior in geology for Outstanding Scholastic Achievement and service to the Society; and Best Senior Research Award.
Germanic Studies (GERM)

For more information consult the School of Languages, Literatures and Cultures elsewhere in this chapter.

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Government and Politics (GVPT)

College of Behavioral and Social Sciences
3140 Tydings Hall, 301-405-4156
www.bsos.umd.edu/gvpt

Chair: T. Wallsten
Director: P. Hanges (Graduate Director), M. Marinelli (Undergraduate Director)
Associate Professors: C. Davenport, V. Haufler, B. Kaminski, K. Kauffmann, D. Lalman, G. Layman, F. Lee, W. McIntosh, M. Schreurs, K. Soltan, P. Swistak
Assistant Professors: D. Grob, M. Hamner, S. Kastner, S. Kim
Lecturers: D. Grant-Wisdom, A. Mohammad Sadeghy, L. Vietri

The Major

Government and Politics is one of the largest majors on campus with approximately 1,000 students taking courses in American politics, international relations, comparative politics, political theory, political philosophy, law, public policy, and environmental policy. Its large and diverse group of students are mentored by faculty through a variety of in and out of classroom experiences and have been extremely successful in garnering campus and national awards, acceptance to competitive law and graduate programs, and exciting careers in all levels of government and the private sector. Students also benefit from a large and active group of local alumni who have reached the highest levels of their respective careers and who actively meet, recruit, and mentor current students.

Program Objectives

The Department of Government and Politics offers programs for the general student as well as for students who are interested in careers in government, the public sector, foreign assignment, teaching, a variety of graduate programs, and law schools. Satisfactory completion of requirements leads to a Bachelor of Arts degree in Government and Politics.

The study of politics is both an ancient discipline and a modern social science. The origin of the discipline can be traced back to the earliest times when philosophers, statesmen, and citizens studied the nature of government, justice, responsibility, and the consequences of political action. More recently, the study of politics has also emphasized scientific analysis and methods of observations about politics. Today, the discipline reflects a broad effort to collect data about politics and governments utilizing relatively new techniques developed by all of the social sciences.

The Department of Government and Politics combines philosophical and scientific concerns in its overall program as well as in specific courses. It emphasizes such broad areas as political development, policy analysis, social justice, political economy, conflict, and human rights. These broad conceptual areas are integral components of study in the discipline. The areas are commonly referred to as American government and politics; comparative government; political theory; international relations; public administration; public law; public policy and political behavior.

Program Learning Outcomes
Having completed the degree program, students should have acquired the following knowledge and skills:

- An understanding of basic political science concepts including power, institutions, political systems, theories of the state, political conflict, citizenship, and contending analytical and theoretical approaches
- Proficiency in research and analytical skills using either quantitative methods and or library skills
- A basic knowledge of the methods, approaches, or theories used in accumulating and interpreting information applicable to the discipline of political science
- Effective oral and written communication skills to clearly and coherently present information in the discipline of political science

**Admission to the Major**

Government and Politics is a Limited Enrollment Program that has special requirements for admission, such as minimum GPA guidelines and required courses. Students planning to transfer into the major should contact the department for details on Limited Enrollment requirements. Students admitted as incoming freshmen will have their academic review after 45 credits.

**Requirements for the Major**

Government and Politics students must complete a minimum 36 credit hours within GVPT, but may take no more than 42 credit hours total within the major. A minimum grade of C is required in each course, and at least 18 of the 36 credits must be in upper-level courses. Students exceeding the 42 credit limit will not be allowed to count additional GVPT credits within the 120 needed to graduate. For every additional GVPT credit, students must complete an additional credit outside of the GVPT major to graduate. (AB and IB credits are included in this calculation).

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GVPT100 Principles of Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td>GVPT241 The Study of Political Philosophy: Ancient and Modern</td>
<td>3</td>
</tr>
<tr>
<td>ECON200 Principles of Microeconomics</td>
<td>4</td>
</tr>
<tr>
<td>One from:</td>
<td></td>
</tr>
<tr>
<td>GVPT170 OR American Government</td>
<td>3</td>
</tr>
<tr>
<td>GVPT171 American Government</td>
<td></td>
</tr>
<tr>
<td>One from:</td>
<td></td>
</tr>
<tr>
<td>MATH111 Introduction to Probability</td>
<td>3-4</td>
</tr>
<tr>
<td>MATH220 Elementary Calculus</td>
<td></td>
</tr>
<tr>
<td>MATH140 Calculus</td>
<td></td>
</tr>
<tr>
<td>STAT100 Introduction to Statistics</td>
<td></td>
</tr>
<tr>
<td>GVPT Electives Total of 27 GVPT credits, 18 credits of which must be at the 300-400 level</td>
<td>27</td>
</tr>
</tbody>
</table>

**SKILLS REQUIREMENT**

Completion of a foreign language through the entire elementary level AND a quantitative course from an approved list AND another foreign language or minimum of 9
quantitative skills course from an approved list. See GVPT website for more details.

SUPPORTING SEQUENCE

Five courses in another major outside of Government & Politics, with at least two courses at the 300-400 level. Approved by GVPT Advisor. 15

All majors must complete a secondary area of concentration in another department or approved disciplinary area. All courses used to satisfy these requirements must be completed with a minimum grade of C. Students should consult with an advisor.

Advising

Academic advisors are available to assist students in finding internships, learning about academic opportunities, clarifying post-graduation plans, and general questions.

Academic advising is available daily on a walk-in or appointment basis in the Undergraduate Advising Offices, 3104 Tydings Hall. Walk-in schedules are posted on-line at www.bsos.umd.edu/GVPT/undergraduate.

Students are encouraged to see an advisor each semester to ensure understanding of major requirements and to review students' progress within the major. All students are required to see an advisor before they register for their senior year of classes, typically between 75 and 89 credits earned.

Undergraduate Research Experiences

Undergraduate GVPT majors are strongly encouraged to participate in independent research with GVPT faculty members. The independent study option provides students opportunities to work one-on-one with a faculty member doing research on a topic of the student's choosing. Students should expect to devote approximately 12 hours per week for 16 weeks to the independent study. Students should also expect to write a final research paper no less than 40 pages in length. GVPT Advisors are available to assist students in identifying appropriate research topics and in selecting the GVPT faculty mentor.

Only six hours of graded GVPT independent study credit will apply toward the 36 hours needed in the major. Internships are generally open only to GVPT majors with junior standing and a 3.0 GPA.

Internships

Undergraduate GVPT majors are strongly encouraged to take advantage of the university's close proximity to Washington D.C. and Annapolis by completing at least one internship experience. The GVPT Advising Office advertises internship experiences weekly in the undergraduate newsletter, and advisors can assist students in identifying other internship opportunities.

The department offers two ways for students to receive academic credit for their internship - through the Public Policy Internship Program and through the Capitol Hill Internship program. Information for both of these courses is available on the GVPT website: www.bsos.umd.edu/GVPT/undergraduate.

Only six hours of graded GVPT internship credit will apply toward the 36 hours needed in the major. Internship credit graded on a pass/fail basis may not be used to satisfy the GVPT major requirements. In no cases may more than 12 internship credits be counted towards the 120 credits needed to graduate. Internships are generally open only to GVPT majors with junior standing and a 3.0 GPA.

Honors Program

The aim of the Government and Politics Honors Program is to encourage students with outstanding abilities to accelerate their development and intellectual growth under conditions of
greater freedom, greater responsibility, and more individual supervision from their instructors. The program also seeks to provide a community within which students can meet one another and further develop their interests in political science and public affairs.

All students majoring in government may apply for admission to the GVPT Honors Program. Additional information concerning the Honors Program may be obtained online at www.bsos.umd.edu/gvpt/honors.

**Student Societies and Professional Organizations**

Pi Sigma Alpha, the National Political Science Honor Society, is the only honor society for college students of political science and government in the United States. The Alpha Zeta chapter of Pi Sigma Alpha was founded in 1938 at the University of Maryland, College Park. Since that time, the chapter has hosted a variety of activities and worked closely with the Department of Government & Politics. The chapter currently has about 80 members who represent the cream of the crop of the Department of Government and Politics. For more information please visit: www.bsos.umd.edu/gvpt/psa.

**Scholarships and Financial Assistance**

GVPT students are encouraged to apply for Government and Politics Departmental Scholarships and outside scholarship opportunities. For more information on these scholarships, please visit: www.bsos.umd.edu/gvpt/undergraduate/scholarships.

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, please visit: www.financialaid.umd.edu.

**Awards and Recognition**

Government and Politics students have had enormous success in winning campus and national awards. Many students have been chosen as university commencement speaker, university medal winner, selected for national undergraduate conferences, and won national scholarships for graduate and law school. The Director of Undergraduate Programs nominates deserving students for departmental and university awards and recognition, and students are informed through the advising office of new opportunities to apply.
Health

See Public and Community Health later in this chapter.

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Hearing and Speech Sciences (HESP)

College of Behavioral and Social Sciences
0100 LeFrak Hall, 301-405-4214
www.bsos.umd.edu/hesp

Faculty
Chair: N. Ratner
Professors: S. Gordon-Salant, F. Roth
Associate Professors: R. Newman
Assistant Professors: M. Chatterjee, T. Fitzgerald, Y. Shah, W. Tian
Lecturers: P. Bonelli, C. Brewer, D. Clark-Tippett, K. Davis, M. Dixon, E. Fallon, P. Fitzgibbons,
W. Gaillard, D. Handy, M. Hawley, A. Kreisle, A. Lingaraj, M. McCabe, C. Oberzut, S. Palmer,
R. Pinto, T. Riley, P. Schauer, L. Sherlock, V. Sisskin, K. Skinker (Dir of Undergraduate Programs),
T. Walden, K. Webster, C. Worthington, C. Zalewski
Affiliate Professors: M. Stone
Adjunct Professors: B. Sonies (Res Prof)
Adjunct Associate Professors: A. Braun, G. Chi-Fishman, C. Ludlow
Professors Emeriti: G. Yeni-Komshian

The Major

Hearing and speech sciences is an inherently interdisciplinary field, integrating knowledge from
the physical and biological sciences, medicine, psychology, linguistics, and education in order to
understand human communication and its disorders. The department curriculum leads to the
Bachelor of Arts degree. An undergraduate major in this field is an appropriate background for
graduate training in Speech-Language Pathology or Audiology, as well as for graduate work in
other disciplines requiring a knowledge of normal or disordered speech, language, or hearing.
The student who wishes to work professionally as a speech-language pathologist or audiologist
must obtain a graduate degree in order to meet national certification requirements, and most
state licensure laws.

The hearing and speech sciences curriculum is designed in part to provide supporting course
work for majors in related fields, so most course offerings are available to both departmental
majors and non-majors. Permission of instructor may be obtained for waiver of course
prerequisites for non-majors wishing to take hearing and speech courses of interest.

Program Learning Outcomes

Having completed the degree program, students should have acquired the following knowledge
and skills:

1. Students will demonstrate application of fundamental concepts of basic sciences (i.e.,
biological, physical, mathematics/statistics, behavioral and social sciences) to the hearing and
speech sciences discipline.

2. Students will demonstrate knowledge of basic communication processes.

3. Students will demonstrate knowledge of speech, language, and hearing disorders and
differences, including etiologies, and characteristics, prevention, assessment, and intervention.

Requirements for the Major

A student majoring in hearing and speech sciences must complete 33 semester hours of
required courses (HESP 120, 202, 300, 305, 311, 400, 402, 403, 404 or 406, 407 and 411) and
six semester hours of electives in the department to satisfy major course requirements. No
course with a grade less than C may count toward major course requirements. In addition to
the 36 semester hours needed for a major, 9 semester hours of supporting courses in statistics
and other related fields are required. For these 12 hours, a C average is required. In addition,
when a HESP course has a listed pre-requisite, this pre-requisite must have been completed
with a grade of C or better before registration in the subsequent course will be approved.

A guide to the major is available through the department office in room 0100 Lefrak or on the
departmental website at www.bsos.umd.edu/hesp/

Course sequencing is extremely important within this major. Advising for majors is mandatory.

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HESP120</td>
<td>Introduction to Linguistics</td>
</tr>
<tr>
<td>HESP202</td>
<td>Introduction to Hearing and Speech Sciences</td>
</tr>
<tr>
<td>HESP300</td>
<td>Introduction to Psycholinguistics</td>
</tr>
<tr>
<td>HESP305</td>
<td>Anatomy and Physiology of the Speech Mechanism</td>
</tr>
<tr>
<td>HESP311</td>
<td>Anatomy, Physiology, and Pathology of the Auditory System</td>
</tr>
<tr>
<td>HESP400</td>
<td>Speech and Language Development in Children</td>
</tr>
<tr>
<td>HESP402</td>
<td>Speech Pathology I: Language Disorders in Children</td>
</tr>
<tr>
<td>HESP403</td>
<td>Introduction to Phonetic Science</td>
</tr>
<tr>
<td>HESP404</td>
<td>Speech Pathology II: Voice and Fluency Disorders, <strong>OR</strong></td>
</tr>
<tr>
<td>HESP406</td>
<td>Speech Pathology III: Aphasia and Neuromotor Disorders</td>
</tr>
<tr>
<td>HESP407</td>
<td>Bases of Hearing Science</td>
</tr>
<tr>
<td>HESP411</td>
<td>Introduction to Audiology</td>
</tr>
</tbody>
</table>

**Electives**

*Students must take six credits from the following offerings:*

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HESP386</td>
<td>Experiential Learning</td>
</tr>
<tr>
<td>HESP417</td>
<td>Principles and Methods in Speech Language Pathology and Audiology</td>
</tr>
<tr>
<td>HESP418</td>
<td>Clinical Practice in Speech Language Pathology and Audiology</td>
</tr>
<tr>
<td>HESP420</td>
<td>Deafness and sign language</td>
</tr>
<tr>
<td>HESP422</td>
<td>Neurological bases of human communication</td>
</tr>
<tr>
<td>HESP423</td>
<td>Phonetics for teachers of English as a second language</td>
</tr>
<tr>
<td>HESP469</td>
<td>Honors thesis research</td>
</tr>
<tr>
<td>HESP498</td>
<td>Seminar in Hearing and Speech Sciences (topics vary)</td>
</tr>
<tr>
<td>HESP499</td>
<td>Independent Study</td>
</tr>
</tbody>
</table>

**Allied/Related Fields (12 credits)**

In addition to a required statistics course, the student will take nine credits from
course offerings in Allied/Related Fields and PSYC 100. A full list of these offerings
is available in the Hearing and Speech Sciences Department undergraduate guide.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC100</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>MATH/STAT</td>
<td>One Statistics course</td>
</tr>
<tr>
<td>ELECT</td>
<td>Two courses from Allied/Related Fields</td>
</tr>
</tbody>
</table>

**Requirements for the Minor**

**Requirements for the HESP minor include the following coursework:**

HESP 202-Introduction to Hearing and Speech Sciences

HESP 300-Introduction to Psycholinguistics

HESP 400-Child Language Acquisition
HESP 403-Phonetics
HESP 407-Hearing Science

**PLUS 2 courses in one of the two elective areas:**

*Elective option 1 (Speech-Language Pathology Focus)*

HESP 305-Anatomy/Physiology of the Speech Mechanism, and
HESP 402, 404 or 406-Speech Pathology I, II or III

*Elective option 2 (Audiology focus)*

HESP 311-Anatomy/Physiology/Pathology of the Auditory Mechanism, and
HESP 411-Introduction to Audiology

**TOTAL CREDITS: 21**

All classes must be completed with a grade of C or better; as with HESP majors, students must obtain a grade of C or better in a class in order to enroll in any courses that require that class as a pre-requisite.

This course sequence acquaints the student with the primary basic science background in the speech, language and hearing sciences, and permits the student to select two courses in the specific professional areas of speech, language or hearing, based on the student’s primary interest area.

This minor is designed for the student in other majors (such as Psychology, Education, Linguistics, FOLA, etc.) who may have plans to attend graduate school in the fields of Speech-Language Pathology or Audiology. These courses are widely viewed as pre-requisite for admission to such programs and constitute a proportion (but not the full extent) of classwork required for eventual post M.A. or post-Au.D. certification by the American Speech-Language-Hearing Association (ASHA) as either a Speech-Language Pathologist or Audiologist. Because both graduate programs and ASHA may require additional coursework, the student pursuing the HESP minor is strongly encouraged to meet with a HESP academic advisor to ensure that eventual educational goals are properly addressed. The HESP minor does not qualify an individual to work professionally as a Speech-Language Pathologist or Audiologist, but does provide a proportion of the coursework required to practice in the State of Maryland as a Speech-Language Pathology Assistant.

**Advising**

Advising appointments may be made at [www.bsos.umd.edu/hesp/hesperptcalendar/](http://www.bsos.umd.edu/hesp/hesperptcalendar/)

Information on advising for hearing and speech sciences may be obtained by calling the department office at 301-405-4214 or the advising office at 301-405-4236. An undergraduate program guide is available through the department office at 0100 Lefrak, or on the web at [www.bsos.umd.edu/hesp](http://www.bsos.umd.edu/hesp).

**Honors Program**

An Honors option in HESP is available to students. This option must be declared prior to the junior year, and requires a 3.5 or higher GPA overall and in HESP coursework. For specific information on procedures for completing the Honors option, consult the Undergraduate Director or the department guide.

**Student Societies and Professional Organizations**

Hearing and speech majors are invited to join the department branch of the National Student...
Speech-Language and Hearing Association (NSLHA).

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History (HIST)

College of Arts and Humanities
2115 Francis Scott Key Hall, 301-405-4265
www.history.umd.edu

Chair: R. Price (Prof & Chair)
Professors: H. Belz, I. Berlin (Distinguished University Professor), A. Eckstein, R. Friedel, J. Gilbert (Distinguished University Professor), G. Gullickson, J. Harris (Prof & Dean), J. Henretta, J. Herf, K. Holm, J. Lampe, H. Lapin (Prof & Dir), S. Michel, K. Olson, M. Rozenblit, D. Sutherland, M. Vaughan, S. Zhang


Assistant Professors: R. Bell, M. Bradbury, K. David-Fox, A. Goldman, H. Jones, L. Mar, P. Wien

Lecturers: C. Lilley, D. McNeilly, B. Mendelsohn, J. Rutenburg, E. Smead

Affiliate Assistant Professors: S. Baron (Visit Asst Prof), J. Taddeo (Visit Asst Prof)

Professors Emeriti: M. Breslow (Assoc Prof Emeritus), S. Brush (Dist Univ Prof Emeritus), G. Callicott, J. Cockburn, W. Cole, E. Evans, C. Foust, L. Harlan (Dist Univ Prof Emeritus), W. Jassemekski (Prof Emerita), G. Kent (Prof Emeritus), G. Majeska (Assoc Prof Emeritus), A. Olson (Prof Emerita), E. Smith (Prof Emeritus), J. Warren (Prof Emeritus), W. Wright (Prof Emeritus), G. Yaney (Prof Emeritus)

The Major

The Department of History seeks to broaden the student's cultural background through the study of history and to provide preparation for those interested in publishing, teaching, museum work, law, journalism, civil service, military, archival and library work, diplomacy, business school, and graduate study.

Undergraduate advisors assist each major in planning a curriculum to meet his or her personal interests. We expect students to meet with an advisor, both in the department and in the College of Arts and Humanities, once every semester.

Courses offered by the Department of History may be found under the acronym HIST.

Requirements for the Major

Requirements for the History major are 39 hours of history course work distributed as follows: 12 hours in 100-200 level introductory courses selected from at least two general geographical fields of history and including History 208; 15 hours in one major area of concentration (see below); nine hours of history in at least two major areas other than the area of concentration; History 408. All courses for the major must be completed with a minimum grade of C, and 21 hours of the 39 total hours must be at the junior-senior (300-400) level.

At least one course (three credits), must be taken from an approved list of courses on regions outside both Europe and the U.S. The list may be obtained from the History Undergraduate Advisor's Office.

A.P. and I.B. credits are accepted.

Credits

Introductory Courses 12
1. To be taken at the 100-200 level taken in at least two geographical fields.
2. One of these must be History 208.
3. In considering courses that will fulfill this requirement, students are encouraged to:
   • select at least two courses in a sequence
   • select at least one course before 1500 and one course after 1500
   • sample both regional and topical course offerings. Student will normally take one or more introductory courses within their major area of concentration

**Major Area of Concentration**

Students may choose an area of concentration that is either geographic, chronological, or thematic. Areas include:

- **Geographic regions:** Africa, Britain and Western Europe, East Asia, Eastern Europe and Russia, Latin and South America, Middle East, United States;
- **Chronological periods:** Ancient, Medieval and Early Modern Europe, 20th Century World;
- **Themes:** African-American, Economic and Business, Jewish, Military, Religious, Science and Technology, Social and Cultural Women and Gender.

**Nine Hours of History in at Least Two Areas Outside the Area of Concentration**

1. Students are encouraged to select mainly upper-level courses.
2. Students are encouraged to consider regional diversity.

**Capstone**

History 408 will be taken in the senior year and may be inside or outside the area of concentration.

**Supporting Courses Outside History**

To be taken at the 300-400 level in appropriate supporting courses; the courses do not all have to be in the same department. Supporting courses should study some aspect of culture and society as taught by other disciplines. A minimum grade of C is required.

**Other Requirements for the Major**

Students must take HIST 208, the Historical Research and Methods Seminar, before and as preparation for the major's capstone course, HIST 408.

**Advising**

Academic advising is available daily on a walk-in basis in the History Undergraduate Advising Office, 2131C Key Hall.

**Internships**

Juniors and seniors may take up to 6 hours of credit in historically-related internships, of which three hours may be counted toward the 39 hours in history required for graduation. All internships must have a direct relationship to the work of understanding, interpreting, presenting or preserving history and/or historical evidence. Students must have both a site supervisor at the place of the internship and a history faculty mentor for their internship project. Student internships must be approved by the Department Internship Coordinator. Internships are generally only open to students who have an overall GPA of 2.5 or better.
Honors Program

The purpose of the Honors Program in History is to allow promising undergraduates to develop historical and historiographical skills, in an atmosphere that guarantees personal attention and encourages hard work and excellence. The program is a four-semester, 12-credit sequence that culminates in a senior thesis, a major research paper written under the close supervision of a faculty mentor in the student's field of interest. The program has two phases. In the junior year, students are introduced to the problems of history and writing at a sophisticated level via two seminars on problems in historiography. In the senior year, students take two supervised courses in the writing of the thesis. The minimum GPA for admission to the History Honors Program is 3.3. For specific information on applying to the History Honors Program, consult the Director of Undergraduate Studies in History.

Student Societies and Professional Organizations

History majors and other interested students are encouraged to join the History Undergraduate Association (HUA), which sponsors events such as an annual Film Festival and special seminars and activities. History majors edit and publish a web-based journal, Janus: The University of Maryland Undergraduate History Journal, which features student writing relevant to history. The department also hosts the Beta-Omega chapter of Phi Alpha Theta, the national history honors society. Information on these organizations can be obtained from the History Undergraduate Office, 2131 Francis Scott Key Hall.

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Horticulture

Agronomy and Horticulture reside within the single major, Plant Sciences (PLSC). See Plant Sciences elsewhere in Chapter 7.
Human Development/Institute for Child Study (EDHD)

College of Education
3304 Benjamin Building, 301-405-2827
www.education.umd.edu/EDhd
Chair: A. Wigfield (Prof & Dir, Prof & Chair)
Professors: P. Alexander, N. Fox, J. Guthrie, M. Killen, K. Rubin, J. Torney-Purta, K. Wentzel
Associate Professors: C. Flatter, B. Jones Harden (Affiliate), E. Klein, R. Marcus, E. Robertson-Tchabo
Assistant Professors: N. Cabrera, S. Parault, M. Wang (Affiliate)
Professors Emeriti: S. Bennett, J. Eliot, A. Gardner, J. Goering, A. Hatfield, R. Huebner, B. Tyler

The Major

The Department of Human Development offers: 1) a major in Early Childhood Education; 2) undergraduate courses in human development at the 200, 300 and 400 levels; 3) graduate programs leading to the M.A., M.Ed., Ed.D., and Ph.D. degrees and the A.G.S. certificate; and 4) field experiences and internships to develop competence in applying theory to practice in schools and other settings. A concentration in life span human development and specializations in educational psychology and developmental sciences are available at the doctoral level. Faculty research in areas such as educational psychology, social, physiological, cognitive and moral development, achievement motivation, and early childhood education enhance the instructional program.

Faculty in the Department of Human Development teach courses designed for pre-service and in-service teachers in the College of Education as well as students from other departments across campus who are seeking an education minor or who desire to work with children and adolescents in school settings. These courses focus on child and adolescent development, language acquisition, cognition, motivation, and reading. In addition, the department offers undergraduate courses that help students meet CORE and other degree requirements.

The Institute for Child Study provides consultant services and staff development for preschool programs, parent groups, court systems, mental health agencies, and other organizations involved in helping relationships. Undergraduate and graduate students may participate in these programs through course work and internships.

Graduates of the Early Childhood Education program receive a Bachelor of Science degree and meet the requirements for teaching preschool, kindergarten and primary grades.

Courses offered by this department may be found under the following acronym: EDHD

Program Learning Outcomes

1. **Content Knowledge:** Early childhood teacher candidates have in-depth knowledge of the subject matter that they teach as described in professional (National Association for the Education of Young Children – NAEYC), state (MSDE), and institutional standards. They demonstrate their knowledge through inquiry, critical analysis, and synthesis of the subject.

2. **Pedagogical and Professional Knowledge, Skills, and Dispositions:** Early childhood teacher education candidates can effectively plan classroom-based instruction or activities for their roles as early childhood educators. Candidates’ knowledge, skills, and dispositions are applied effectively in practice.
3. **Effects on Student Learning:** Early childhood education teacher candidates accurately assess and analyze student learning, make appropriate adjustments to instruction, monitor student learning, and have a positive effect on learning for all students.

4. **Professional Dispositions:** Early childhood education teacher candidates are able to work with students, families, and communities in ways that reflect the dispositions expected of professional educators as delineated in professional (NAEYC), state (MSDE), and institutional standards.

5. **Competency on the Maryland Teacher Technology Standards:** Early childhood education teacher candidates demonstrate proficiency in each of the seven *Maryland Teacher Technology Standards*.

**Admission to the Major**

Application to the Teacher Education Professional Program must be made early in the semester prior to beginning professional courses. Admission procedures and criteria are explained in the College of Education entry in Chapter Six. The Early Childhood program is a Limited Enrollment Program (LEP), which admits students on a space-available basis. In addition to the College of Education selective admission requirements, early childhood majors must meet the following gateway requirements:

- (1) Completion of a four-credit CORE laboratory physical science, a four-credit CORE laboratory biological science, Elements of Numbers and Operations (MATH 212), and Elements of Geometry and Measurement (MATH 213) with a minimum cumulative GPA in these four courses of 2.70

- (2) Completion of Exploring Teaching in Early Childhood Education (EDHD 220 or approved equivalent) with a grade of B or better.

A description of the Early Childhood LEP is included in Chapter 6. Detailed information regarding the gateway requirements is available in the Office of Student Services, Room 1204 Benjamin.

**Placement in Courses**

All Teacher Education Programs have designated pre-professional courses and a specified sequence of professional courses. Before students may enroll in courses identified as part of the professional sequence, they must first gain admission to the College of Education’s Teacher Education Program.

**Requirements for the Major**

The following courses are required in the program of studies for Early Childhood and may also satisfy the University’s general education requirements. See departmental worksheets and advisors for additional information.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC100</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOCIAL SCI</td>
<td>ANTH, ECON, GEOG, GVPT, HIST, SOCY</td>
<td>3</td>
</tr>
<tr>
<td>HIST156</td>
<td>History of the US to 1865</td>
<td>3</td>
</tr>
<tr>
<td>BIO SCI</td>
<td>Biological Science with Lab</td>
<td>4</td>
</tr>
<tr>
<td>PHY SCI</td>
<td>ASTR, CHEM, GEOL, PHYS with Lab</td>
<td>4</td>
</tr>
<tr>
<td>EDPL210 OR</td>
<td>Historical &amp; Philosophical Perspectives on</td>
<td>Education OR</td>
</tr>
<tr>
<td></td>
<td>Foundations of Education</td>
<td></td>
</tr>
<tr>
<td>EDPL301</td>
<td>Foundations of Education</td>
<td></td>
</tr>
</tbody>
</table>

**Other Pre-Professional Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 212</td>
<td>Elements of Numbers &amp; Operations</td>
<td>3</td>
</tr>
</tbody>
</table>
Professional Courses

The Early Childhood Professional Block I starts only in the Fall semester and is a prerequisite to Professional Block II. Professional Block III follows Professional Block II, and is taken in the Fall semester preceding student teaching. An overall grade point average of 2.5 must be maintained after admission to Teacher Education. All pre-professional requirements must be completed with a minimum grade of C before beginning the Early Childhood Professional Blocks. All professional courses must be completed with a minimum grade of C prior to student teaching. Teacher candidates must obtain satisfactory evaluations on the College of Education Technical Standards. See advisor for program planning. Additional information regarding the requirements for Student Teaching is included in the College of Education entry in Chapter Six.

Professional Block I: (Fall)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDHD210</td>
<td>Foundations of ECE</td>
<td>3</td>
</tr>
<tr>
<td>EDHD220</td>
<td>Exploring Teaching in ECE</td>
<td>3</td>
</tr>
<tr>
<td>EDHD285</td>
<td>Designing Multimedia Computer Environments for Learners</td>
<td>3</td>
</tr>
<tr>
<td>EDHD222</td>
<td>Literature in the Early Childhood Classroom</td>
<td>3</td>
</tr>
</tbody>
</table>

Professional Block II: (Spring)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDHD244</td>
<td>Cultural and Community Perspectives</td>
<td>3</td>
</tr>
<tr>
<td>EDHD314</td>
<td>Reading in the EC Classroom-Part I</td>
<td>3</td>
</tr>
<tr>
<td>EDHD313</td>
<td>Creative Experiences for the Young Child</td>
<td>3</td>
</tr>
<tr>
<td>EDHD419B</td>
<td>Human Development and Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDHD415</td>
<td>Social Competence in Young Children</td>
<td>3</td>
</tr>
</tbody>
</table>

Professional Block III: (Fall)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDHD427</td>
<td>Constructing and Integrating the EC Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>EDHD323</td>
<td>Children Study Their World</td>
<td>2</td>
</tr>
<tr>
<td>EDHD321</td>
<td>The Young Child as Scientist</td>
<td>2</td>
</tr>
<tr>
<td>EDHD322</td>
<td>The Young Child as Mathematician</td>
<td>3</td>
</tr>
<tr>
<td>EDHD315</td>
<td>Reading in the EC Classroom-Part II</td>
<td>3</td>
</tr>
<tr>
<td>EDHD435</td>
<td>Effective Components of EC Classrooms</td>
<td>3</td>
</tr>
</tbody>
</table>

Professional Block IV: (Spring)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDHD432</td>
<td>Student Teaching</td>
<td>12</td>
</tr>
<tr>
<td>EDCI464</td>
<td>Assessment of Reading</td>
<td>3</td>
</tr>
</tbody>
</table>

Advising

Advising is mandatory for all students desiring acceptance into the Teacher Education Program. Students will receive advising through individual advising appointments held during the early registration period. Information regarding the advising appointment schedule will be available
each semester in Room 1117J Benjamin. Walk-in hours are also posted each semester.

**Awards and Recognition**

Early Childhood majors are eligible for the Ordwein Scholarship. Information is available in the Office of Student Services, Room 1204, Benjamin.

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Individual Studies Program

1117 Hornbake Library, 301-314-9962
IVSP Coordinator: Jeff Kniple
www.ivsp.umd.edu/

Subject to a rigorous proposal process, the Individual Studies Program (IVSP) enables UM students to design unique majors when their educational goals cannot be reasonably achieved within an existing departmental curriculum. The Individual Studies Program leads to a Bachelor of Arts or Bachelor of Science degree. IVSP degree programs focus on academic and intellectual growth through interdisciplinary study. Training for a chosen profession is never the purpose of IVSP.

For more information, see Office of Undergraduate Studies section in Chapter 6.

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Information Systems: Specialization Business

For information, see Decision and Information Technologies elsewhere in Chapter 7.

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International Agriculture and Natural Resources Certificate

College of Agriculture and Natural Resources
1104 Symons Hall, 301-405-2078
www.agnr.umd.edu
sabrown@umd.edu

The Certificate in International Agriculture and Natural Resources is designed to enrich a student's major with a global perspective. The required courses focus on: language instruction; international aspects of the environment, agricultural production, development and sustainability, nutrition, and business; an experience abroad; and a capstone course regarding the student's travel abroad. Any student in good academic standing may participate in the certificate program.

Requirements for Certificate

The certificate requires at least 21 credits that may include courses taken toward other degree and CORE requirements. Upon successful completion of the courses, with a grade of C or better in each course and a recommendation of the Associate Dean of the College of Agriculture and Natural Resources, a certificate will be awarded. A notation of the award of the certificate will be included on the student's transcript. In order to receive the certificate, students must have completed all requirements for a bachelor's degree.

Foreign Language
6-8 credits in a foreign language

International Courses
At least 9 credits from the following list of courses, at least 3 of these courses must be in the College of Agriculture and Natural Resources for students not majoring in a program outside of the College of Agriculture and Natural Resources:

PLSC 303 International Crop Production
ENST 440 Crops, Soils, and Civilization
AREC 365 World Hunger, Population, and Food Supplies
AREC 433 Food and Agricultural Policy
BMGT 392 Introduction to International Business Management
BMGT 390 Competing on Quality in a Global Economy
BSCI 365 International Pesticide Problems and Solutions
GEOG 434 Agriculture and Rural Development
NFSC 425 International Nutrition
AREC 445 Agricultural Development, Population Growth, and the Environment
ECON 440 International Economics
GVPT 306 Global Ecopolitics

GEOG 422 Population Geography

**Travel Study or Travel Abroad**
Three to four credits of travel study or study abroad. Prerequisite: to have completed the foreign language course work. Prerequisite or co-requisite: six credits from the International Courses List. In order to qualify for the certificate, travel study and study abroad experiences require prior approval of Associate Dean of the College of Agriculture and Natural Resources. For approval, travel experience must demonstrate significant learning opportunities in areas related to agriculture and natural resources and cultural immersion.

**Travel Study Seminar**
1 credit Travel Study Seminar. Prerequisite: completion of the travel study requirement.

This course will require student presentation of their travel experience including a paper, a poster presentation, as well as an oral presentation and discussion.

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International Business

For information, see Logistics, Business and Public Policy elsewhere in Chapter 7.

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Italian Language and Literature (ITAL)

For information consult the School of Languages, Literatures, and Cultures elsewhere in chapter 7.

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Departments, Majors, and Programs

Japanese (JAPN)

Japanese (JAPN)

For information consult the School of Languages, Literatures, and Cultures elsewhere in chapter 7.

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**JEWISH STUDIES PROGRAM (JWST)**

**College of Arts and Humanities**  
0142 Holzapfel Hall, 301-405-4975  
www.jewishstudies.umd.edu  
jwst@arhu.umd.edu  
Director: H. Lapin (Prof & Dir)  
Professors: A. Berlin, M. Rozenblit  
Associate Professors: B. Cooperman, C. Manekin  
Assistant Professors: M. Grossman, S. Jelen, E. Zakim  
Instructors: N. Levy  
Lecturers: E. Gonen  
Affiliate Professors: C. Butterworth, N. Fox, J. Harris (Prof And Dean), J. Herf, K. Holum, R. Igel, S. Selden, G. Strauch  
Affiliate Associate Professors: H. Brodsky (Assoc Prof Emeritus), J. Freidenberg, G. Strauch  
Visiting Faculty: E. Adler, M. Cohen, M. Isaacs

**The Major**

The Jewish Studies major provides undergraduates with a framework for organized and interdisciplinary study of the history, philosophy, and literature of the Jews from antiquity to the present. Jewish Studies draws on a vast literature in a number of languages, especially Hebrew and Aramaic, and includes the Bible, the Talmud, and medieval and modern Hebrew literature. Yiddish language and literature comprise an important sub-field.

**Program Objectives**

The Meyerhoff Center for Jewish Studies encourages research and provides instruction about the rich history and culture of the Jewish people from earliest times to the present day. Dedicated to the highest standards of scholarship, the program offers a wide array of courses in Hebrew Language and Literature, Jewish History, Bible, Rabbinics, Jewish Philosophy, and Yiddish Language and Literature. These courses form one of the largest undergraduate Jewish Studies programs in North America. In addition, the Jewish Studies program supports faculty research projects and organizes frequent academic conferences and lectures in order to bring the fruits of scholarship to a wider public. The Jewish Studies Program seeks to provide undergraduate majors with an appreciation for the interdisciplinary nature of Jewish Studies, understanding that Jewish literary texts, Jewish history, and Jewish culture and thought are, to a large degree inseparable. Students are expected to master the Hebrew language and acquire facility in reading, understanding, analyzing and interpreting texts both in Hebrew and in English translation. In addition, students should be able to pursue independent research and to argue coherently and persuasively in writing.

**Program Learning Outcomes**

The Jewish Studies Program seeks to provide undergraduate majors with an appreciation for the interdisciplinary nature of Jewish Studies, understanding that Jewish literary texts, Jewish history, and Jewish culture and thought are to a large degree inseparable. Students who complete the major should have acquired the following knowledge and skills:

1. Mastery of modern Hebrew at the advanced level
2. Mastery of the chronological development and major themes of Jewish history and culture
3. Ability to read, analyze, and interpret texts in classical (biblical, rabbinic, medieval)
4. Ability to conduct independent research and analysis and represent their results in written form showing mastery of academic tools and formal conventions

**Academic Programs and Departmental Facilities**

**Study Abroad**

The Jewish Studies program encourages students to study internationally. In addition to programs run by the University, students study at academic programs in Israel, Europe, and elsewhere. In particular, majors studying in Israel gain the opportunity to improve their Hebrew language skills by taking ulpan, the intensive course in Hebrew offered at those universities, and by practicing their Hebrew with Israelis. In addition, students can take courses in Israeli society and politics, Middle East Studies, and other courses not usually offered at College Park. Scholarship funds are available to majors and non-majors. Please see the section on 'Scholarships and Financial Assistance' for more information.

**The Library**

The Jewish Studies program has a large and growing Judaica collection at the University of Maryland Libraries that aims to become a major resource and repository for the entire area. The collection includes materials in Jewish history, Hebrew and Yiddish literature, the Bible, Talmud, medieval philosophy, Jewish women, theater, Holocaust, and modern Israel. In addition to scholarly books and periodicals written in the English, German, Hebrew, Yiddish, Ladino, Arabic, French, Italian, and Slavic languages, the collection includes rare books, musical scores, video and audio recordings, facsimile copies of historical documents, and manuscripts.

**Requirements for the Major**

Requirements for the Jewish Studies major include the College of Arts and Humanities requirement of 45 upper-level credits completed. The College foreign-language requirement will be automatically fulfilled in the process of taking Hebrew language courses. The undergraduate major requires 48 semester hours (27 hours minimum at 300-400 level) in Jewish Studies. These courses may include courses offered by Jewish Studies or cross-listed by Jewish Studies with the Departments of Asian and East European Languages and Literatures, History, Philosophy, English, Women's Studies, and Comparative Literature.

A minimum grade of C is required in all courses offered toward major requirements. A major in Jewish Studies will normally conform to the following curriculum:

<table>
<thead>
<tr>
<th>Credits</th>
<th>Prerequisites *</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>HEBR111 Elementary Hebrew I</td>
</tr>
<tr>
<td>6</td>
<td>HEBR112 Elementary Hebrew II</td>
</tr>
<tr>
<td>6</td>
<td>HEBR211 Intermediate Hebrew I</td>
</tr>
<tr>
<td>6</td>
<td>HEBR212 Intermediate Hebrew II</td>
</tr>
<tr>
<td>21</td>
<td>Required Courses</td>
</tr>
<tr>
<td>3</td>
<td>HEBR313 Conversation and Composition I</td>
</tr>
<tr>
<td>3</td>
<td>HEBR314 Conversation and Composition II</td>
</tr>
<tr>
<td>3</td>
<td>JWST234 History of the Jewish People I</td>
</tr>
<tr>
<td>3</td>
<td>JWST235 History of the Jewish People II</td>
</tr>
<tr>
<td>3</td>
<td>JWST272 Jewish Literature in Translation**</td>
</tr>
<tr>
<td>3</td>
<td>JWST309 Research Seminar</td>
</tr>
<tr>
<td>3</td>
<td>one upper-level course in Hebrew literature in which the text and/or language of instruction are in Hebrew</td>
</tr>
<tr>
<td>3</td>
<td>HEBR UL</td>
</tr>
<tr>
<td>15</td>
<td>Electives</td>
</tr>
<tr>
<td>6</td>
<td>JWST JWST Electives</td>
</tr>
</tbody>
</table>
Requirements for the Minor

Minor in Jewish Studies

Requirements: 15 credits towards the Minor in Jewish Studies are to be distributed as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>3</td>
</tr>
<tr>
<td>Literature</td>
<td>3</td>
</tr>
<tr>
<td>Thought, religion, or cultural studies</td>
<td>3</td>
</tr>
<tr>
<td>Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

- A minimum of 9 credits must be at the upper level.
- All credits must be earned with a grade of ‘C’ or above.
- A list of qualifying courses in each category is available from the Director of the JWST program.
- Up to 3 credits of lower-level Hebrew or Yiddish language study may be credited toward the Minor. In exceptional cases, students may petition to have other languages included.

Restrictions:

- Students enrolled in the Jewish Studies Major are not eligible to enroll in the Minor.
- At least six credits of upper-level credit must be taken at the University of Maryland.
- No more than six credits may be taken at an institution other than Maryland.
- In keeping with University policy, no more than six credits may also be applied to a major.

Minor in Middle Eastern Studies

Advisor: Professor Zilfi; mzilfi@umd.edu; 301-405-4270

Requirements: 15 credits (5 courses) towards the Minor in Middle Eastern Studies. Coursework must be distributed to meet the overlapping requirements below. (For example, PHIL 416: Medieval Philosophy can be used to meet both the pre-modern requirement and the upper-division requirement.)

6 credits: At least one course each in two geographical, linguistic, cultural, or religious areas. These may include the following: (a) the Arab world; (b) Iran and the Iranian world; (c) Jewish and Israel; (d) Turkish and Ottoman; and (e) Diaspora Studies. Other areas of concentration may be considered and require the advisor's approval.

6 credits: At least two courses (6 credits) must focus on the pre-modern (pre-20th century). Middle East students may fulfill this requirement through their area distribution or elective courses.
3 credits: The balance of credits consists of electives and may be selected from the list of approved Middle East Studies courses.

- A minimum of 3 courses (9 credits) must be at the upper level.
- All credits must be earned with a grade of 'C' or above.
- A list of qualifying courses in each category is available from the academic advisor of the minor.
- Up to 3 credits of language instruction (Arabic, Hebrew or Persian; others by petition) may be credited toward the Minor.

Restrictions:

- Students enrolled in the Jewish Studies Major are not eligible to enroll in the Minor.
- At least six credits of upper-level credit must be taken at the University of Maryland.
- No more than six credits may be taken at an institution other than Maryland.
- In keeping with University policy, no more than six credits may be simultaneously applied to the major.

Advising

Departmental advising is mandatory each semester for all Jewish Studies majors. Please contact The Meyerhoff Center for Jewish Studies (301-405-4975) to set an appointment.

Honors Program

The Honors Program in Jewish Studies is designed to encourage Jewish Studies majors with excellent grades and strong academic interests to pursue an individual research project of their own design, in consultation with and under the direction of an advisor. The Program consists of twelve credits taken in a student's Junior and Senior years culminating in the writing of an honors thesis. Students who complete the Honors Program are deemed to have completed the research seminar requirement for the major, typically completed through JWST 309.

Junior Year: Students apply for admission to the Honors Program in the Fall of their Junior year, and, upon admission, enroll in the Honors Seminar (JWST 408) (3 credits) in the Spring of their Junior year. During this time students are expected to develop a general research plan to be approved by the prospective thesis advisor. Thesis advisors will generally belong to the regular or affiliate Jewish Studies faculty. Other faculty may serve as thesis advisor with the written permission of the Director of Undergraduate Studies.

Senior Year: In the Fall of their Senior year students select an upper-level course (3 credits) closely related to their research agenda in consultation with the advisor. This may include a regularly offered undergraduate course, independent study, in which case students are encouraged to apply for an Honors Option for that particular course. In addition, students may request permission to enroll in a graduate-level course to complete this part of their requirement. Students who enter the Honors Program with a clearly defined research interest may complete this requirement in their Junior year.

In addition, students take 6 credits of JWST 418: Honors Thesis Research, under the direction of their thesis advisor. Typically these will be divided between the Fall and Spring semesters. Students are expected to work out with their advisors clear goals that contribute to the thesis as a whole for each semester of thesis research, and will be graded each semester on the basis of having met those goals. In the second semester, the principal goal will be the completed thesis.

Scholarships and Financial Assistance

The Joseph and Rebecca Meyerhoff Center for Jewish Studies offers scholarships for study abroad and special domestic study programs that have a clear relationship to Jewish Studies. Students wishing to study in Israel are especially encouraged to attend. Applications for scholarships are accepted in March, with notification by early April. For information visit: www.jewishstudies.umd.edu/academic/scholarships.html or call the Center at 301 405 4975.
The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

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Journalism

The Philip Merrill College of Journalism offers the B.A., M.A., M. J. and Ph.D degrees. For more information and undergraduate degree requirements see Chapter 6.
Kinesiology (KNES)

College of Health and Human Performance
2351 HLHP Building, 301-405-2450
www.hhp.umd.edu/KNES
ihruzd@umd.edu
Chair: J. Clark (Prof & Chair)
Director: C. Farmer
Professors: C. Ennis, J. Hagberg, B. Hatfield, B. Hurley, S. Iso-Ahola, J. Jeka
Instructors: E. Brown, M. Scott
Lecturers: S. Kogut, J. Mahan, J. Metcalfe, J. Montfort, B. Saksvig, D. Vacante
Professors Emeriti: D. Clarke, C. Dotson, B. Franks, J. Hult, J. Humphrey, B. Husman, D. Kelley,
S. Phillips (Assoc Prof Emerita), D. Steel, J. Wrenn (Assoc Prof Emeritus)

The Major

The Department of Kinesiology offers two undergraduate degree programs. Students may
choose to major in Physical Education or in Kinesiological Sciences. Brief descriptions of each
program follow. Students should obtain a current Student Handbook for the degree program of
interest (available on the web at www.hhp.umd.edu/KNES ). Both programs require a grade of
C or better in all required course-work. Departmental contacts are Mr. Joshua Montfort for
Physical Education (301-405-2502, jmontfor@umd.edu) or Dr. Marvin Scott (301-405-2480,
mwscott@umd.edu) for Kinesiology.

Program Objectives

The overall mission of the Department of Kinesiology is to improve the health and well being of
all people through an interdisciplinary understanding of physical activity in its many forms (e.g.,
exercise, sport, movement activities of daily living). The Department of Kinesiology is
committed to providing students with an excellent education in Kinesiology; generating
empirical evidence about physical activity; and providing services to the state, nation, and
world by furthering and sharing our knowledge and expertise about physical activity.

Requirements for the Major

Physical Education Major

The Physical Education degree program is designed to lead to Pre-K-12 teacher certification in
the State of Maryland. Maryland teaching certificates are reciprocal with most other states.
While this program is designed to provide professional preparation for individuals in public
school settings, it also provides excellent preparation for those wishing to pursue other
professional opportunities in sport, exercise, or physical activity. Also, due to the scientific
foundation of the degree program, an appropriate background is established for future graduate
work for those who desire to continue their studies in any area involving human movement and
sport. Many courses require prerequisites and proper sequencing is very important. Not all
courses are offered every semester. All interested students are urged to schedule an advising
appointment with the program coordinator before declaring this major. Students should consult
the department for updated information.
Minimum total semester hours for this program is 120 credits.

Admission to the College of Education is required upon completion of 45 applicable credits. Students must pass the Praxis I exam and have a GPA established by the College of Education in order to gain admission (Currently 2.50). Additional information is available from the College of Education.

**Kinesiological Sciences Major**

This program offers students the opportunity to study the interdisciplinary body of knowledge related to human physical activity and sport, and to pursue specific specializations so that each individual can prepare for a particular career goal within the broad discipline. There is no intent to orient all students toward a particular specialized interest, orientation or career. However, many current students are pursuing careers in medically-related fields (i.e., physical therapy, medicine, physical therapy assistant, athletic training, coaching, exercise science, and sport management).
physician, chiropractor), in the fitness industry (i.e., corporate fitness, personal training, health fitness director) as well as in the sport industry (sport management, sport marketing, events management, equipment sales, athletic director). The program provides a hierarchical approach to the study of human movement. First, a broad core of knowledge is recognized as being a necessary foundation for advanced and more specific courses. Secondly, at the 'Options' level, students select from approved upper level KNES courses which they believe will provide the knowledge to pursue whatever future goal they set for themselves. To further strengthen specific areas of interest, students should select electives carefully. The program culminates with a senior seminar class in which students write a substantial paper and discuss the implications of research.

**Required Courses**

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KNES CORE</strong></td>
<td>22</td>
</tr>
<tr>
<td>KNES287 Sport and American Society</td>
<td>3</td>
</tr>
<tr>
<td>KNES293 History of Sport in America</td>
<td>3</td>
</tr>
<tr>
<td>KNES300 Biomechanics of Human Motion</td>
<td>4</td>
</tr>
<tr>
<td>KNES350 Psychology of Sport</td>
<td>3</td>
</tr>
<tr>
<td>KNES360 Exercise Physiology</td>
<td>3</td>
</tr>
<tr>
<td>KNES370 Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>KNES385 Motor Control and Learning</td>
<td>3</td>
</tr>
<tr>
<td>CORE University CORE requirements</td>
<td>27</td>
</tr>
</tbody>
</table>

**Option Courses**

See departmental Bulletin Board, Handbook, or web page

**NOTES:** all have KNES prerequisites

**Supporting Courses**

<table>
<thead>
<tr>
<th>Supporting Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSCI105 Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>BSCI201 Human Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BSCI202 Human Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>MATH/STAT one statistics course</td>
<td>3</td>
</tr>
<tr>
<td>KNES497 Independent Studies Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

**Physical Activities Courses**

<table>
<thead>
<tr>
<th>Electives (approximately)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.ACTV</td>
<td>8</td>
</tr>
</tbody>
</table>

* Minimum total semester hours for program is 120 credits, including the general education (CORE) program.

**Requirements for the Minor**

**Sport Commerce and Culture**

The minor in Sport Commerce and Culture provides students with a unique opportunity to study the structure and experience of contemporary sport culture from an interdisciplinary perspective rooted in theories and methods largely - but not exclusively - drawn from anthropology, cultural studies, economics, gender studies, history, media and communication studies, psychology, race and ethnic studies, sociology, and urban studies. The minor requires 18 credits:

**Credits**

<table>
<thead>
<tr>
<th>Required courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNES287 Sport in American Society</td>
<td>3</td>
</tr>
<tr>
<td>KNES293 History of Sport in America</td>
<td>3</td>
</tr>
</tbody>
</table>

*N.B. These courses fulfill CORE SB/D1 and SH2*


requirements

Elective Courses 12

*Any four of the following 3-credit courses*

- KNES240 Exploring Cultural Diversity Through Movement 3
- KNES350 The Psychology of Sports 3
- KNES351 Contemporary Issues in American Sport 3
- KNES355 Sport Management 3
- KNES357 Sport and Culture in the Global Marketplace 3
- KNES451 Children and Sport: A Psychosocial Perspective 3
- KNES483 Sport Marketing and Media 3
- KNES484 Sporting Hollywood 3
- KNES485 Sport and Globalization 3
- KNES486 Politics and Economics of Organized Contemporary Sport 3

**Please Note:**

1) Not all elective courses are offered every year.
2) Temporary courses may be added to this list dependent on the Minor advisor's approval.
3) Relevant courses from other departments may be added to the list dependent on the Minor advisor's approval.

Advising

Advising is mandatory for Physical Education majors and strongly recommended (but not mandatory) for Kinesiological Sciences majors. Students in both majors are encouraged to join the departmental listserv (group electronic information) for weekly departmental and campus updates and internship/job information. Instructions for joining the listserv are available at the Main Office (HHP 2351). Students should also periodically check the Bulletin Boards near HHP 2335 for updated information. Kinesiological Sciences majors with greater than 80 credits should meet with an advisor to review and sign the senior audit.

Advisors are not assigned, although certain advisors handle issues related to policy exceptions, academic difficulties, change of major, athletes, and other special cases. Advising appointments are made through the Main Office (301-405-2450). Drop-in hours are available during non-peak registration times. Advisors can assist with registration procedures, program updates, University resources, career guidance, and related issues. Students are strongly encouraged to closely follow the program sheets that outline the order in which courses should be taken to allow proper and timely progression through the degree programs.

Undergraduate Research Experiences

Undergraduate research experiences are encouraged. Research internships are available for 1-3 credits and generally done at the junior or senior level following the completion of most Kinesiology core courses. Contact the Kinesiology undergraduate office for additional information (301 405-2450).

Fieldwork Opportunities

Fieldwork opportunities are available and encouraged in a variety of areas including physical therapy, occupational therapy, fitness, sport management and many others. Contact the Kinesiology undergraduate office (301 405-2450) to obtain additional information.

Internships

One-three credit internships are encouraged. Contact the Kinesiology undergraduate office (301-405-2450) for additional information.

Honors Program
The departmental Honors Program complements and extends the University Honors Program, although the admission to the University program is not required to be admitted to the departmental program. The departmental Honors Program provides junior and senior students with opportunities to engage in extended study, research and discussions with faculty. The program requires 18 credits of Honors versions of courses and a thesis, which will be defended before a faculty committee. Applicants must have a 3.5 overall GPA in a minimum of 45 credits and a 3.5 GPA in at least 9 credits from the Kinesiology Core. The faculty Honors Committee also considers leadership, motivation and maturity in the admission decision. Qualified students typically apply in the spring semester of the sophomore year. To remain in the program after admitted, students must maintain a 3.5 GPA. Students may graduate with high honors by completing a thesis rated as outstanding and earning a cumulative GPA of 3.7 or higher. Inquires about the program should be directed to Dr. Stephen Roth, Honors Program Coordinator, at 301-405-2504 or sroth1@umd.edu.

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Departments, Majors, and Programs

Landscape Architecture (LARC)

Faculty

The Major

Program Learning Outcomes

Admission to the Major

Requirements for the Major

Advising

Internships

Student Societies and Professional Organizations

Scholarships and Financial Assistance

Landscape Architecture (LARC)

College of Agriculture and Natural Resources
2139 Plant Sciences Building, 301-405-4359
www.larc.umd.edu/
mdosh@umd.edu
Chair: W. Kenworthy (Professor and Acting Chair)
Director: J.B. Sullivan
Associate Professors: S. Chang, D. Myers, J.B. Sullivan
Lecturers: A. Anderson, A. Ison, D. Nola
Adjunct Assistant Professors: B. Kane, J. Leonard

The Major

The Landscape Architecture curriculum is a four-year professional program. The program is a site-based design discipline that also deals with regional and larger-scale environmental issues. The curriculum, a studio-based design program, integrates natural and social factor analysis into the design process. Digital design studios allow the integration of computer-aided design with fundamental design and drawing skills.

The Department of Plant Science and Landscape Architecture offers two additional undergraduate curricula that students may choose: the Bachelor of Science (B.S.) in Plant Sciences or in Agricultural Sciences and Technology. Information on these majors may be found elsewhere in the catalog.

Courses offered by this department may be found under the following acronyms: PLSC and LARC.

Program Learning Outcomes

- Develop knowledge-based skills in the required areas of study.
- Apply knowledge-based skills to work, collaborate and solve problems, and articulate conclusions.
- Articulate knowledge of content area and demonstrate competence in professional practice through effective communication skills appropriately tailored to specific audiences.

Admission to the Major

Landscape Architecture is a limited-enrollment program (LEP). See Chapter 1 of the Undergraduate Catalog for general limited-enrollment program admission policies.

Freshman Admission: The program's goal is to have the greater proportion of program majors admitted as freshmen. Most entering freshmen will gain admission to the landscape architecture program directly from high school, as space permits. Early application is encouraged to ensure the best possible chance for admission.

Transfer Admission: Admission of transfer students is limited by space considerations: Students presenting an acceptable graphic portfolio, evaluated by the landscape architecture faculty, may be exempted from one or both of the first year studios. Landscape architecture faculty will evaluate all other LARC-equivalent courses transferred from another institution.
The Academic Review: All students will be subjected to an Academic Review after they have completed the first three design studio courses (or their equivalent) in the Landscape Architecture curriculum. To meet the provisions of the review, students must complete: (1) MATH 112 or MATH 115 with a minimum grade of C, (2) LARC 120 and 160 with a minimum grade of B, and LARC 140 and 141 with a minimum grade of C, (3) attain a successful review of a portfolio (a minimum of 80 points out of a possible 100) by the landscape architecture faculty to assess graphic and design skills, and (4) attain an overall GPA of at least 2.40. Students who do not meet these requirements will not be allowed to continue in the landscape architecture LEP and will be required to accept another major.

Other Policies Which Determine a Student’s Retention in the Landscape Architecture Program:

- A student can only repeat one of the five Academic Review Course Requirements (LARC 120, 140, 141, 160 and MATH 112 or MATH 115). That particular course can only be repeated once.
- A grade of W (Withdrawn) in a course is counted as an attempt.
- A student who does not meet the Academic Review requirements will be dismissed from the Program.
- A student who is dismissed from the Program will not be readmitted to the Landscape Architecture LEP.

Appeals: Students who are unsuccessful in gaining admission to the Landscape Architecture LEP and believe they have extenuating or special circumstances which should be considered, may appeal in writing to the Office of Undergraduate Admissions. The student will be notified in writing of the appeal decision. Students in the Landscape Architecture LEP who do not pass the Academic Review, but believe they have special circumstances that should be considered, should appeal directly to the Coordinator of the Landscape Architecture program.

BLA Degree Requirements. The courses and credit hours that define the curriculum leading to the degree of Bachelor of Landscape Architecture (BLA) are described in the next section. The curriculum includes required courses for the major as well as additional CORE program requirements and electives. Following the successful Academic Review and acceptance into the LARC Program, students must have an overall average of a C (2.0) to be eligible for the BLA degree. Students must also have grades of C or better in all required courses with the LARC designation.

Requirements for the Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 393</td>
<td>Technical Writing 3</td>
</tr>
<tr>
<td>ENST 200</td>
<td>Fundamentals of Soil Science 4</td>
</tr>
<tr>
<td>ENST 444</td>
<td>Remote Sensing of Resources 4</td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Geomorphology, OR 3</td>
</tr>
<tr>
<td>GEOG 372</td>
<td>Remote Sensing, OR 3</td>
</tr>
<tr>
<td>LARC 120</td>
<td>Digital Fundamentals 2</td>
</tr>
<tr>
<td>LARC 140</td>
<td>Graphic Fundamentals Studio 4</td>
</tr>
<tr>
<td>LARC 141</td>
<td>Design Fundamentals Studio 4</td>
</tr>
<tr>
<td>LARC 160</td>
<td>Introduction to Landscape Architecture 3</td>
</tr>
<tr>
<td>LARC 221</td>
<td>Digital Design Tools 3</td>
</tr>
<tr>
<td>LARC 240</td>
<td>Graphic Communication and Design Studio 4</td>
</tr>
<tr>
<td>LARC 263</td>
<td>History of Landscape Architecture 3</td>
</tr>
<tr>
<td>LARC 265</td>
<td>Site Analysis and Ecological Principles 3</td>
</tr>
<tr>
<td>LARC 320</td>
<td>Principles of Site Engineering 3</td>
</tr>
</tbody>
</table>
Advising

The Department has mandatory faculty advising for each of its major and minor programs. Students are required to meet with their faculty advisor at least twice a year. See the Director of the Landscape Architecture Program in 2139 Plant Sciences Building (301-405-4359) for additional information.

Internships

Internships are available at nearby federal, state and county agencies as well as in private landscape architecture practices.

Student Societies and Professional Organizations

The Student Chapter of the American Society of Landscape Architects (ASLA) provides students with opportunities to get involved with on-campus activities. The club is chartered by ASLA.

Scholarships and Financial Assistance

Several scholarships and awards are available to Landscape Architecture students. Contact the Associate Dean's office at 301-405-2078 for additional information. The Department also maintains a listing of scholarships. Contact Kathy Hunt in 2102 Plant Sciences, 301-405-4355.

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu

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Languages, Literatures, and Cultures, School of (SLLC)

College of Arts and Humanities
1105 Jiménez Hall, 301-405-4025
www.languages.umd.edu
Director: M. Long
Associate Director for Academic Affairs: P. Verdaguer
Associate Director for Administrative Affairs: C. Goebeler

Academic Programs

The School of Languages, Literatures, and Cultures is the primary academic unit devoted to instruction and research in the world’s languages, literatures, and cultures. It consists of the Departments of Asian and East European Languages and Cultures; French and Italian; Germanic Studies; Spanish and Portuguese; and the Second Language Acquisition program. The School offers study abroad programs in many countries, both short and long-term. Its Language House, a residential immersion facility for approximately 100 students, is one of the most successful living-learning programs on campus.

In addition, the FOLA program offers individualized instruction in less commonly taught foreign languages. Recent language offerings have included: Armenian, Dutch, Hindi, Hungarian, Polish, Swahili, Tagalog, Turkish, Urdu and Vietnamese.

Note: In all programs in the School, students must take language acquisition courses sequentially, i.e., 103, 203, 204, etc. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

Asian and East European Languages and Cultures (AEEL)
2106 Jimenez Hall, 301-405-4239
www.languages.umd.edu/AsianEastEuropean

Professor and Chair: Ramsey
Professors: Brecht, Elgibali, Karimi
Associate Professors: Branner, Gor, Hitchcock, Kerkham, Lekic, Liu, Martin, Yotsukura, Zakim
Assistant Professors: Chao, Mason, Papazian
Lecturers: Levy, Miura, Yaginuma

French and Italian (FRIT)
3106C Jimenez Hall, 301-405-4024
www.languages.umd.edu/FrenchItalian

Professor and Chair: Brami
Professors: Mossman, Verdaguer
Associate Professors: Campagne, Falvo, Letzter, Scullen
Assistant Professors: Benharrech, Carlorosi, Eades, Frisch
Lecturer: Amodeo Emeriti: Fink, Hage, Meijer, Russell, Tarica, Therrien

Germanic Studies (GERM)
3215 Jimenez Hall, 301-405-4091
www.languages.umd.edu/German/

Professor and Acting Chair: Pfister
Language Majors

The Chinese Major

The Chinese major provides the training and cultural background needed for entering East Asia-related careers in such fields as higher education, the arts, business, government, international relations, agriculture, or the media. Students may also consider a double major in Chinese and another discipline, such as business, government and politics, economics, or journalism.

After completing the prerequisite of one year of language (12 credits): CHIN 101 (Elementary Chinese; six hours per week, fall); CHIN 102 (Elementary Spoken Chinese; three hours per week, spring); and CHIN 103 (Elementary Written Chinese; three hours per week, spring), students must complete 36 credits for the major course requirements (18 language, six civilization/history, 12 elective).

Chinese students have the option of applying to live in St. Mary's Hall (Language House) and participating in a study-abroad program.

Students must take language-acquisition courses sequentially. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language:</strong></td>
<td></td>
</tr>
<tr>
<td>CHIN201 Intermediate Spoken Chinese I</td>
<td>3</td>
</tr>
<tr>
<td>CHIN202 Intermediate Written Chinese I</td>
<td>3</td>
</tr>
<tr>
<td>CHIN203 Intermediate Spoken Chinese II</td>
<td>3</td>
</tr>
<tr>
<td>CHIN204 Intermediate Written Chinese II</td>
<td>3</td>
</tr>
<tr>
<td>CHIN301 Advanced Chinese I</td>
<td>3</td>
</tr>
<tr>
<td>CHIN302 Advanced Chinese II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Civilization/History:</strong></td>
<td></td>
</tr>
<tr>
<td><em>Option I:</em></td>
<td></td>
</tr>
<tr>
<td>HIST284 East Asian Civilization I and</td>
<td>3</td>
</tr>
<tr>
<td>HIST481 A History of Modern China or</td>
<td>3</td>
</tr>
<tr>
<td>HIST485 History of Chinese Communism</td>
<td>3</td>
</tr>
<tr>
<td><em>Option II:</em></td>
<td></td>
</tr>
<tr>
<td>HIST285 East Asian Civilization II and</td>
<td>3</td>
</tr>
<tr>
<td>HIST480 History of Traditional China</td>
<td>3</td>
</tr>
<tr>
<td>ELECT Electives (300-level or above)</td>
<td>12</td>
</tr>
</tbody>
</table>
Note: Electives must be in Chinese language, literature, linguistics, or other East Asian subjects (one must be in the area of Chinese linguistics and one in the area of Chinese literature), and are subject to approval by the student's advisor.

**The French Major**

Changes in major requirements are under review. For more information, please contact the department at 301-405-4034.

The undergraduate major in French consists of 36 hours of French courses above FREN 203. Students intending to apply for teacher certification should consult the Undergraduate Advisor as early as possible for proper planning.

Students must take language acquisition courses sequentially, i.e., 103, 203, 204, 250, etc. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

### Requirements

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core required of all majors</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td>FREN204 French Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>FREN250 Introduction to French Literature</td>
<td>3</td>
</tr>
<tr>
<td>FREN301 Composition and Style</td>
<td>3</td>
</tr>
<tr>
<td>FREN401 Writing with Style</td>
<td>3</td>
</tr>
<tr>
<td><strong>French Language, Culture and Literature Option</strong></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>One from:</td>
<td></td>
</tr>
<tr>
<td>FREN302 Practicum in Translation I</td>
<td>3</td>
</tr>
<tr>
<td>FREN303 Practicum in Translation II</td>
<td>3</td>
</tr>
<tr>
<td>One from:</td>
<td></td>
</tr>
<tr>
<td>FREN311 Advanced Conversation: The History of France</td>
<td>3</td>
</tr>
<tr>
<td>FREN312 France Today</td>
<td>3</td>
</tr>
<tr>
<td>Also required:</td>
<td></td>
</tr>
<tr>
<td>FREN351 From Romanticism to the Age of Modernism and Beyond</td>
<td>3</td>
</tr>
<tr>
<td>FREN352 From the Age of Epic and Romance to the Enlightenment</td>
<td>3</td>
</tr>
<tr>
<td>FREN4xx four additional 400-level courses of which only one may be in English</td>
<td>12</td>
</tr>
<tr>
<td><strong>French and International Business Option</strong></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>FREN302 Practicum in Translation I</td>
<td>3</td>
</tr>
<tr>
<td>FREN303 Practicum in Translation II</td>
<td>3</td>
</tr>
<tr>
<td>FREN306 Commercial French I</td>
<td>3</td>
</tr>
<tr>
<td>FREN311 Advanced Conversation: The History of France</td>
<td>3</td>
</tr>
<tr>
<td>FREN312 France Today</td>
<td>3</td>
</tr>
<tr>
<td>FREN406 Commercial French II</td>
<td>3</td>
</tr>
<tr>
<td>Two from:</td>
<td></td>
</tr>
<tr>
<td>FREN351 From Romanticism to the Age of Modernism and Beyond</td>
<td>3</td>
</tr>
<tr>
<td>FREN352 From the Age of Epic and Romance to the Enlightenment</td>
<td>3</td>
</tr>
</tbody>
</table>
The German Language and Literature Major

Changes in major requirements are under review. For more information, please contact the department at 301-405-4091 or Dr. Pfister at 301-405-4106.

The undergraduate major in German Language and Literature consists of 36 hours beyond the basic language acquisition sequence (GERM 103-203). Three program options lead to the Bachelor of Arts (B.A.) degree: 1) German language, 2) German literature, and 3) Germanic area studies. All majors must meet with a departmental advisor at least once per semester.

Students must take language-acquisition courses sequentially. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>German Language Option Core:</strong></td>
<td></td>
</tr>
<tr>
<td>GERM220</td>
<td>Introduction to German Literature</td>
</tr>
<tr>
<td>GERM301</td>
<td>Conversation and Composition I</td>
</tr>
<tr>
<td>GERM302</td>
<td>Conversation and Composition II</td>
</tr>
<tr>
<td>GERM321</td>
<td>Highlights of German Literature I</td>
</tr>
<tr>
<td>GERM322</td>
<td>Highlights of German Literature II</td>
</tr>
<tr>
<td><strong>Specialization:</strong></td>
<td></td>
</tr>
<tr>
<td>GERM300/400</td>
<td>two 400-level German literature courses</td>
</tr>
<tr>
<td>GERM300/400</td>
<td>two upper-level courses in any of the three areas of specialization</td>
</tr>
<tr>
<td><strong>Three from:</strong></td>
<td></td>
</tr>
<tr>
<td>GERM401</td>
<td>Advanced Conversation</td>
</tr>
<tr>
<td>GERM403</td>
<td>Advanced Composition</td>
</tr>
<tr>
<td>GERM405</td>
<td>Stylistics</td>
</tr>
<tr>
<td>GERM419</td>
<td>Selected Topics in German Language Study</td>
</tr>
<tr>
<td><strong>German Literature Option Core</strong></td>
<td></td>
</tr>
<tr>
<td>GERM220</td>
<td>Introduction to German Literature</td>
</tr>
<tr>
<td>GERM301</td>
<td>Conversation and Composition I</td>
</tr>
<tr>
<td>GERM302</td>
<td>Conversation and Composition II</td>
</tr>
<tr>
<td>GERM321</td>
<td>Highlights of German Literature I</td>
</tr>
<tr>
<td>GERM322</td>
<td>Highlights of German Literature II</td>
</tr>
<tr>
<td><strong>Specialization:</strong></td>
<td></td>
</tr>
<tr>
<td>GERM300/400</td>
<td>five 400-level German literature courses</td>
</tr>
<tr>
<td>GERM300/400</td>
<td>two upper-level courses in any of the three areas of specialization</td>
</tr>
</tbody>
</table>

**Germanic Area Studies Option Core:**
GERM220  Introduction to German Literature  3
GERM301  Conversation and Composition I  3
GERM302  Conversation and Composition II  3
GERM321  Highlights of German Literature I  3
GERM322  Highlights of German Literature II  3

Modern Scandinavian Specialization:

GERM369  Scandinavian Literature in Translation  3
GERM461  Reading Swedish, Danish and Norwegian I  3
GERM300/400  Five upper-level courses in the Germanic area studies group  15

Medieval Scandinavian Specialization:

GERM283  Viking Culture & Civilization  3
GERM475  Old Norse  3
GERM300/400  Five upper-level courses in the Germanic area studies group.  15

Also available is a German Business Option, an International Business-German Business Option, and an Engineering-German dual degree. Students should contact a departmental advisor for more information.

The Italian Major

The undergraduate major in Italian consists of 36 hours of Italian courses above ITAL 203. The major requirements include: the language sequence: ITAL 204, 211, 301, and either 302 or 311; the literature sequence: 251, 350; six courses at the 400-level, of which one may be in English.

Students must take language acquisition courses sequentially, i.e., 203, 204, 301, etc. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language Sequence</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td>ITAL204  Review Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ITAL211  Intermediate Conversation</td>
<td>3</td>
</tr>
<tr>
<td>ITAL301  Composition and Style</td>
<td>3</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
</tr>
<tr>
<td>ITAL302  Introduction to Translation</td>
<td>3</td>
</tr>
<tr>
<td>ITAL311  Italian Conversation: Current Events</td>
<td>3</td>
</tr>
<tr>
<td><strong>Literature Sequence</strong></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td>ITAL251  Aspects of Contemporary Italian Literature and Culture</td>
<td>3</td>
</tr>
<tr>
<td>ITAL350  Readings in Italian Literature</td>
<td>3</td>
</tr>
<tr>
<td>ITAL4xx six courses at the 400 level*</td>
<td>18</td>
</tr>
</tbody>
</table>

*only one may be in English

The Japanese Major

The Japanese major provides the training and cultural background needed for entering East Asia-related careers in such fields as higher education, the arts, business, government, international relations, agriculture, or the media. Students may also consider a double major in Japanese and another discipline, such as business, international relations, economics, or journalism. After completing the prerequisite of one year of language (12 credits): JAPN 101 (Elementary Japanese I; six hours per week, fall) and JAPN 102 (Elementary Japanese II; six hours per week, spring), students must complete 42 credits for the major course requirements (24
language, six civilization/history, 12 elective).

Students must take language-acquisition courses sequentially. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language:</strong></td>
<td></td>
</tr>
<tr>
<td>JAPN201</td>
<td>Intermediate Japanese I 6</td>
</tr>
<tr>
<td>JAPN202</td>
<td>Intermediate Japanese II 6</td>
</tr>
<tr>
<td>JAPN301</td>
<td>Advanced Japanese I 6</td>
</tr>
<tr>
<td>JAPN302</td>
<td>Advanced Japanese II 6</td>
</tr>
<tr>
<td><strong>Civilization/History:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Option I:</strong></td>
<td></td>
</tr>
<tr>
<td>HIST284</td>
<td>East Asian Civilization I 3</td>
</tr>
<tr>
<td>HIST483</td>
<td>History of Japan Since 1800 3</td>
</tr>
<tr>
<td><strong>Option II:</strong></td>
<td></td>
</tr>
<tr>
<td>HIST285</td>
<td>East Asian Civilization II 3</td>
</tr>
<tr>
<td>HIST482</td>
<td>History of Japan to 1800 3</td>
</tr>
<tr>
<td>ELECT</td>
<td>Electives (300-level or above) 12</td>
</tr>
</tbody>
</table>

**Note:** Electives must be in Japanese language, literature, linguistics, or other East Asian subjects (one must be in the area of Japanese linguistics and one in the area of Japanese literature), and are subject to approval by the student's advisor.

**The Romance Languages Major**

The Romance Languages Program is intended for students who wish to specialize in two Romance languages: French, Italian, Spanish.

Students selecting this major must take a total of 45 credits selected from courses in two of the three components listed below: French, Italian and Spanish. The first four courses listed under each group are required for that particular language component; exceptions or substitutions may be made only with the approval of the student's advisor in consultation with the Romance Languages Advisor. 21 credits are taken in each of the two languages, as specified, and three additional credits are taken at the 400-level in either of the languages chosen. Literature or civilization courses may not be taken in translation.

Students must take language-acquisition courses sequentially. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

Students who wish to apply for Teacher's Certification should consult the College of Education.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>French</strong></td>
<td>21</td>
</tr>
<tr>
<td>FREN204 French Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>FREN250 Introduction to French Literature</td>
<td>3</td>
</tr>
<tr>
<td>FREN301 Composition and Style</td>
<td>3</td>
</tr>
<tr>
<td>FREN351 From Romanticism to the Age of Modernism and Beyond</td>
<td>3</td>
</tr>
<tr>
<td>FREN352 From the Age of Epic and Romance to the Enlightenment</td>
<td>3</td>
</tr>
<tr>
<td>FREN4xx two additional literature or civilization courses</td>
<td>6</td>
</tr>
</tbody>
</table>
The Russian Major

The undergraduate major in Russian Language and Literature consists of 40 credits beyond the prerequisite of Elementary Russian (Russian 101-102 or equivalent). Many students pursue a double major or double degree in Russian and another discipline, such as international relations, business, history, economics, journalism, engineering, etc. Russian students have the opportunity to live in St. Mary's Language House, and the majority of majors participate in study abroad. Native or heritage speakers wishing to enroll in Russian courses or major in Russian should consult the Undergraduate Advisor. Students interested in enrolling in a course that appears closed or that has a waitlist are strongly encouraged to contact the faculty member or Undergraduate Advisor for Russian for permission to enroll.

Students must take language-acquisition courses sequentially. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS201 Intermediate Russian I</td>
<td>5</td>
</tr>
<tr>
<td>RUSS202 Intermediate Russian II</td>
<td>5</td>
</tr>
<tr>
<td>RUSS301 Advanced Russian I</td>
<td>3</td>
</tr>
<tr>
<td>RUSS302 Advanced Russian II</td>
<td>3</td>
</tr>
<tr>
<td>RUSS3xx One additional course at the 300-level</td>
<td>3</td>
</tr>
<tr>
<td>RUSS401 Advanced Russian Composition</td>
<td>3</td>
</tr>
<tr>
<td>RUSS402 Practicum in Written Russian</td>
<td>3</td>
</tr>
<tr>
<td>RUSS4xx One additional course at the 400-level</td>
<td>3</td>
</tr>
<tr>
<td>RUSS Two RUSS electives</td>
<td>6</td>
</tr>
<tr>
<td>RUSS300/400 Two upper level RUSS electives*</td>
<td>6</td>
</tr>
</tbody>
</table>

*must be taught in Russian

Notes: One supporting course outside the department (at the 300-level or above) may be counted toward the major with an advisor's prior approval.

The Spanish Language and Literature Major

Undergraduate majors can benefit from a wide range of courses in Spanish and Latin American literature and civilization; technical courses in translation, linguistics, and commercial uses of Spanish. Area studies programs are also available in conjunction with other disciplines to

<table>
<thead>
<tr>
<th>Italian</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL204 Review Grammar and Composition</td>
<td>3</td>
</tr>
<tr>
<td>ITAL211 Intermediate Conversation</td>
<td>3</td>
</tr>
<tr>
<td>ITAL301 Composition and Style</td>
<td>3</td>
</tr>
<tr>
<td>ITAL350 Readings in Italian Literature</td>
<td>3</td>
</tr>
<tr>
<td>ITAL4xx three additional literature or civilization courses at the 400 level</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spanish</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN207 Reading and Writing in Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN301 Advanced Grammar and Composition I</td>
<td>3</td>
</tr>
</tbody>
</table>

Changes to the Romance Language requirement list in Spanish is pending. Please consult with an advisor when planning your course of study.
provide the student with a solid knowledge of the Spanish and Latin American worlds.

Students must take language-acquisition courses sequentially. Once credit has been received in a higher-level language acquisition or grammar course, a lower-level course may not be taken for credit.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Language and Literature Option</strong></td>
<td></td>
</tr>
<tr>
<td>SPAN207 Reading and Writing in Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN221 Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td>SPAN301 Advanced Grammar and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN302 Advanced Grammar and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN311 Advanced Conversation I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN3xx</td>
<td></td>
</tr>
<tr>
<td>Changes to course requirement lists in Spanish are pending. Please consult with an advisor when planning your course of study.</td>
<td></td>
</tr>
<tr>
<td>SPAN4xx four courses in literature at the 400 level*</td>
<td>12</td>
</tr>
<tr>
<td>SUPPORT Supporting Courses</td>
<td>9</td>
</tr>
</tbody>
</table>

Nine credits of supporting courses, six of which must be at the 300- or 400-level in a single area other than Spanish. Suggested areas: art, comparative literature, government and politics, history, philosophy, and Portuguese.

*one course may be taken in Luzo-Brazilian literature

| Foreign Area Option                  |         |
| SPAN207 Reading and Writing in Spanish | 3       |
| SPAN301 Advanced Grammar and Composition I | 3       |
| SPAN302 Advanced Grammar and Composition II | 3      |
| **One from:**                        |         |
| SPAN311 Advanced Conversation I      | 3       |
| SPAN312 Advanced Conversation II     | 3       |
| **One sequence from:**              |         |
| SPAN315/415 Commercial Spanish I/II  | 6       |
| SPAN316/317 Practicum in Translation I/Translation II | 6      |
| SPAN3xx                             |         |
| Changes to course requirement lists in Spanish are pending. Please consult with an advisor when planning your course of study | |
| SPAN4xx Three courses in literature at the 400 level* | 12      |
| SUPPORT Supporting Courses          | 9       |
Nine credits of supporting courses, six of which must be at the 300- or 400-level in a single area other than Spanish. Suggested areas: anthropology, economics, geography, government and politics, history, Portuguese, and sociology.

*one course may be taken in Luso-Brazilian literature

**Translation Option**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN207</td>
<td>Reading and Writing in Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN301</td>
<td>Advanced Grammar and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN302</td>
<td>Advanced Grammar and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN311</td>
<td>Advanced Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN316</td>
<td>Practicum in Translation I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN317</td>
<td>Translation II</td>
<td>3</td>
</tr>
</tbody>
</table>

Two from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN318</td>
<td>Translation of Technical Texts</td>
<td>3</td>
</tr>
<tr>
<td>SPAN356</td>
<td>Literary Translation I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN357</td>
<td>Literary Translation II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Changes to course requirement lists in Spanish are pending. Please consult with an advisor when planning your course of study.**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN416</td>
<td>Practicum in Translation V</td>
<td>3</td>
</tr>
<tr>
<td>SPAN417</td>
<td>Practicum in Translation VI</td>
<td>3</td>
</tr>
<tr>
<td>SPAN4xx</td>
<td>Two courses in literature at the 400 level*</td>
<td>3</td>
</tr>
</tbody>
</table>

**Supporting Courses**

Nine credits of supporting courses, six of which must be at the 300- or 400-level in a single area other than Spanish. Suggested areas: art, comparative literature, government and politics, history, philosophy, and Portuguese.

*one course may be taken in Luso-Brazilian literature

**Business Option**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN207</td>
<td>Reading and Writing in Spanish</td>
<td>3</td>
</tr>
<tr>
<td>SPAN211</td>
<td>Intermediate Conversation</td>
<td>3</td>
</tr>
<tr>
<td>SPAN301</td>
<td>Advanced Grammar and Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN302</td>
<td>Advanced Grammar and Composition II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN311</td>
<td>Advanced Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN315</td>
<td>Commercial Spanish I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN316</td>
<td>Practicum in Translation I</td>
<td>3</td>
</tr>
<tr>
<td>SPAN317</td>
<td>Translation II</td>
<td>3</td>
</tr>
</tbody>
</table>
### Language Minors

#### Minors in Chinese
Minors in Chinese Language and in Chinese Studies are available. Contact the department for requirements and advising.

#### Minor in French Studies
The Minor in French Studies is a series of five courses in French to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

#### Minor in German Language, Literature, and Culture
The Minor in German Language, Literature, and Culture is a series of five courses in German to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

#### Minor in Italian Language and Culture
The Minor in Italian Language and Culture is a series of five courses in Italian to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

#### Minor in Business Italian
The Minor in Business Italian is a series of five courses in Italian to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

#### Minor in Japanese
The Japanese Minor is a series of five courses to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

#### The Korean Studies Minor
The Korean Studies Minor is a series of five courses to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied. Open to heritage and non-heritage students.

#### Minor in Portuguese Language, Literatures and Cultures
The Minor in Portuguese Languages, Literatures and Cultures is a series of five courses to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

#### Minor in Russian Studies
The Minor in Russian Studies is a series of five courses to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

#### Minor in Spanish Language and Cultures
The Minor in Spanish Language and Cultures is a series of five courses in Spanish to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

#### Minor in Spanish Language, Business, and Cultures

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN3xx</td>
<td>Changes to course requirements lists in Spanish are pending. Please consult with an advisor when planning your course of study.</td>
<td>6</td>
</tr>
<tr>
<td>SPAN415</td>
<td>Commercial Spanish II</td>
<td>3</td>
</tr>
<tr>
<td>SPAN422</td>
<td>Cross-Cultural Communications</td>
<td>3</td>
</tr>
</tbody>
</table>

**SUPPORT Supporting Courses**

Twelve credits of supporting courses, six of which must be at the 300- or 400-level in a single area other than Spanish. Suggested areas: business and management, economics, government and politics, history and geography.
The Minor in Spanish Language, Business, and Cultures is a series of five courses in Spanish to be chosen in consultation with the departmental advisor. Courses taken through Study Abroad programs may be applied.

Other Language Programs

Arabic
The Arabic language program prepares students to read and write Modern Standard Arabic (the language of radio, television, and newspapers throughout the Arab World) as well as to communicate with native speakers in spoken varieties of Arabic. Three levels of language instruction, elementary, intermediate, and advanced, are offered, with introduction to Arabic and Islamic culture in each.

Hebrew
The Hebrew language program provides an opportunity to acquire knowledge and skills in Hebrew language, culture, and thought. Elementary and intermediate language courses develop communication skills in modern Hebrew. Upper-level language courses emphasize reading comprehension, vocabulary enrichment, and writing skills. More advanced students focus on the analytical study of major classical and modern Hebrew texts.

Students wishing to focus on Hebrew language as a primary subject may do so through a concentration on Hebrew within the Jewish Studies major (see Jewish Studies Program).

Scholarships for study in Israel are available through the Meyerhoff Center for Jewish Studies. Hebrew students have the option of applying to live in St. Mary’s Hall (the Language House).

Korean
There are two tracks in the Korean language program. The first consists of KORA 101, 102, 202, and 212 and is designed for students with no previous background in, or exposure to, Korean language and culture. The second consists of KORA 211, 212, 311, and 312. It is a heritage sequence for students who were exposed to Korean as children, but who do not have native fluency in the language. See individual course descriptions for placement information. In addition to language skills courses, the department offers courses on the structure and history of the Korean language.

Persian Language
The Persian Studies Center offers language courses at the introductory, intermediate, and advanced levels, and literature courses at the 300 and 400 levels. Courses in literature, cinema, and culture are offered in English at the 200-400 level.

Advising

Advising is crucial to the successful completion of courses, Minors, and Majors. You are welcome to consult with your language advisor at any point in your studies.

All ARHU majors require College and Department advising during the first semester of matriculation, at 60-75 credits, and at 90-105 credits. Check with your Department to see if semester advising is required in addition.

Honors Programs

Honors Programs are available in the School of Languages within the French, German, and Spanish majors. These programs offer qualified students the possibility of working in close contact with a mentor on an original thesis. Interested students should see the departmental Honors Program directors for information as early as possible in their course of studies.
Latin American Studies Certificate

College of Arts and Humanities
0128B Holzapfel Hall, 301-405-6459
www.lasc.umd.edu
lasc@umd.edu

The multidisciplinary certificate program in Latin American Studies is open to University of Maryland, College Park undergraduates in any major who are interested in international studies and Latin America. The undergraduate Certificate in Latin American Studies will be awarded to students who have completed 21 credits with a grade of C or better in the following areas.

Requirements for Certificate

A. Core curriculum for all certificate students (12 credits)

LASC/SPAN/PORT 234                 Issues in Latin American Studies I
LASC/SPAN/PORT 235                 Issues in Latin American Studies II
HIST 250 or HIST 251                   Latin American History I or II
LASC/SPAN/PORT/ANTH 458        Senior capstone course in Latin American Studies

B. Additional courses in Latin American Studies (9 credits)

Nine credits are additional courses that must be chosen from an approved list and from at least two different departments. At least six credits must be at the 300- or 400-level. See Latin American Studies advisor for details.

C. Foreign Language Competency

All certificate students must demonstrate their competence in either Spanish or Portuguese. Competency may be proven with a grade of C or better in an intermediate-level course (PORT 204, SPAN 203) or higher. Native speakers of Spanish or Portuguese or students with extensive experience in these languages should consult with the Latin American Studies advisor. Interested students should contact Dr. Eyda Merediz, 2225 Jimenez Hall at emerediz@umd.edu or the LASC Center at 301-405-6459.

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Lesbian, Gay, Bisexual and Transgender Studies Certificate

2212 Marie Mount Hall, 301-405-5428
www.lgbts.umd.edu
Director: Dr. Marilee Lindemann

The Program in Lesbian, Gay, Bisexual and Transgender Studies (LGBT) offers an interdisciplinary undergraduate certificate designed to examine the lives, experiences, identities and representations of LGBT persons, those who are today described as having a minority sexual orientation or who are gender transgressive. Students study LGBT families and communities, cultures and subcultures; histories, institutions, languages and literatures; economic and political lives; and the complex relations of sexual minorities to the culture and experience of the gender conformant and (hetero) sexual majority. LGBT Studies is an interdisciplinary and multidisciplinary field, and promotes the application of new theories and methodologies (e.g., queer, feminist, critical race, and multicultural theories) to established disciplines, and it advances the generation of new knowledge within traditional fields of scholarship. Through study of sexual minorities, students gain an understanding of and respect for other differences in human lives such as age, ability, class, ethnicity, gender, race, and religion. With their faculty advisors, certificate candidates design a program that complements their major field of study.

Certificate Requirements:

A. Core curriculum for the LGBT Certificate (15 credits)

1. LGBT200 Introduction to Lesbian Gay Bisexual Transgender Studies

2. One of the following:

   a. CMLT291/LGBT291
      International Perspectives on Lesbian and Gay Studies

   b. ENGL265/LGBT265
      Introduction to Lesbian, Gay, and Bisexual Literature

3. One of the following:

   a. LGBT350
      LGBT People and Communication

   b. PHIL407/LGBT407
      Gay and Lesbian Philosophy

   c. WMST494/LGBT494
      Lesbian Communities and Differences

4. One of the following:

   a. ENGL359/LGBT359
      Special Topics in Lesbian, Gay, and Bisexual Literatures
b. ENGL459/LGBT459  
Selected Topics in Sexuality and Literature

c. ENGL465/LBGT465  
Theories of Sexuality and Literature

5. One of the following:

a. LGBT488  
Seminar in LGBT Studies

b. LGBT386  
Supervised Internship - LGBT Community Organizations

B. Electives (6 credits)

Students choose 6 hours of elective credits in consultation with their advisor in LGBT Studies. At least 3 hours of elective credits must be from upper division courses (i.e., those numbered 300 or above). Students are encouraged to choose electives to complement their knowledge of LGBT people and issues by exploring disciplines that contrast with the major field of study. Students may select elective courses from the list of core courses above or from a list of approved courses. A student may also petition to have any other course fulfill this requirement by providing evidence, usually the syllabus, that a substantial amount of the course work, usually including a term paper, consists of LGBT material.

C. Each student must obtain a grade of C or better in each course that is to be counted toward the certificate.

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Undergraduate Catalog 2007-2008

Departments, Majors, and Programs

Letters and Sciences

For information, see Office of Undergraduates Studies in Chapter 6.

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Linguistics (LING)

College of Arts and Humanities
1401 Marie Mount Hall, 301-405-7002
www.ling.umd.edu

Chair: N. Hornstein
Professors: H. Lasnik (Dist Univ Prof), P. Pietroski, D. Poeppel, J. Uriagereka
Associate Professors: W. Idsardi, J. Lidz, C. Phillips, P. Resnik, A. Weinberg
Assistant Professors: V. Hacquard
Instructors: A. Zukowski (Asst Res Sci)
Lecturers: M. Antonisse, T. Bleam

The Major

The Linguistics Department offers courses on many aspects of language study and an interdisciplinary major leading to a Bachelor of Arts. Language is basic to many human activities and linguistics relates to many other disciplines which include work on language.

Work on language has provided one of the main research probes in philosophy and psychology for most of the 20th century. It has taken on a new momentum in the last 30 years and language research has proven to be a fruitful means to cast light on the nature of the human mind and on general cognitive capacity. Several courses focus on a research program which takes as a central question: How do children master their native language? Children hear many styles of speech, variable pronunciations, and incomplete expressions, but, despite this flux of experience, they come to speak and understand speech effortlessly, instantaneously, and subconsciously. Research aims to discover how this happens, how a person's linguistic capacity is represented in the mind, and what the genetic basis for it is. Students learn how various kinds of data can be brought to bear on their central question and how that question influences the shape of technical analyses.

The major in Linguistics is designed for students who are primarily interested in human language per se, or in describing particular languages in a systematic and psychologically plausible way, or in using language as a tool to reveal some aspect of human mental capacities. Such a major provides useful preparation for professional programs in foreign languages, language teaching, communication, psychology, speech pathology, and artificial intelligence (and thus in computer work).

Program Learning Outcomes

The Department of Linguistics B.A. program seeks to expose majors to fundamental questions about the nature of the human mind, using Language as a vehicle for examining this issue. The program aims to cultivate strong empirical research skills, data analysis, application of scientific methodology, and the ability to communicate clear, logical arguments.

1. Students can analyze a sentence from English or another language, providing a syntactic parse tree and evidence for their analysis (constituency tests and other tests).
2. Students can provide a phonological analysis of any language given a sufficient data set (including data from non-Western languages).
3. Students understand and can reproduce arguments for the existence of mental grammar.
4. Students understand and can reproduce arguments for a genetic component of human language.
5. Students can apply the scientific method to data analysis. Specifically, they can formulate generalizations, specify the predictions of a hypothesis with respect to
independent generalizations, and test predictions.

Requirements for the Major

A grade of at least 'C' is required in all major courses.

<table>
<thead>
<tr>
<th>Core required of all majors:</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LING240 Language and the Mind</td>
<td>3</td>
</tr>
<tr>
<td>LING311 Syntax I</td>
<td>3</td>
</tr>
<tr>
<td>LING321 Phonology I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Two from:**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

| LING312 Syntax II            | 3       |
| LING322 Phonology II         | 3       |
| LING330 Historical Linguistics | 3     |
| LING410 Grammar and Meaning  | 3       |
| LING420 Word Formation       | 3       |
| HESP403 Introduction to Phonetic Science | 3 |

**Grammars and Cognition Track**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
</tr>
</tbody>
</table>

| LING350 Philosophy of Language | 3   |
| PSYC100 Introduction to Psychology | 3 |
| PSYC341 Introduction to Memory and Cognition | 3 |

**One from:**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

| PHIL170 Introduction to Logic | 3 |
| PHIL271 Symbolic Logic I |

<table>
<thead>
<tr>
<th>Linguistics Electives</th>
<th>6</th>
</tr>
</thead>
</table>

| LING two upper level LING electives | 6 |
| Electives |

| ELECT two electives in LING, PSYC, HESP, PHIL, or CMSC | 6 |

**Language Track**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
</tr>
</tbody>
</table>

| LANG 15 credits of a single chosen language | 15 |
| LANG 3 credits in structure or history of the language | 3 |

<table>
<thead>
<tr>
<th>Linguistics Electives</th>
<th>6</th>
</tr>
</thead>
</table>

| LING two upper level LING electives | 6 |

There are no requirements for support courses for the Linguistics major.

Other Requirements for the Major
• LING 240 must be taken before any other courses in the major. LING 240 is offered every semester.

• After LING 240, students should take LING 311 (Syntax I) and LING 321 (Phonology I), as they are prerequisites for other required courses. These courses can be taken together in the same semester.

• LING 312 (Syntax II) and LING 322 (Phonology II) are only offered in the Spring.

• LING 410 (Grammar and Meaning) is only offered in the Fall.

• Optional courses for the major are not necessarily offered on a regular basis. Students should check with the undergraduate advisor to find out which courses will be offered and when.

• A grade of C or better is required in prerequisite courses.

Requirements for the Minor

15 credit hours: LING 200, 240, 321, 311, and one upper level linguistics elective.

All courses presented for the minor must be passed with a grade of ‘C’ or better.

Advising

Students considering a Linguistics Major must meet with the Linguistics undergraduate advisor and also with an advisor in the College of Arts and Humanities to create a 4-year-plan. For more information, including contact information for the Undergraduate Advisor(s), see our web page for linguistics advising at: www.umiacs.umd.edu/~resnik/ling_advising/

Departmental advising is mandatory for second-semester sophomores and seniors.

Undergraduate Research Experiences

There are opportunities in the department for undergraduate students to get involved in doing research. Students interested in research in linguistics should submit a resume and/or project proposal to the undergraduate advisor or to an appropriate faculty member. Attempts will be made to match students with appropriate faculty advisors. The possibility of doing research is not guaranteed for every student, but will depend on the student’s skills and the availability and willingness of a faculty member to direct the project.

Honors Program

Academically talented Linguistics majors with junior standing may petition to become honors candidates in Linguistics. Honors students work on a research project under a faculty advisor and write an honors thesis.

Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

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LOGISTICS, BUSINESS, AND PUBLIC POLICY (BMGT)

The Robert H. Smith School of Business
1570 Van Munching Hall, 301-405-2286
www.rhsmith.umd.edu/undergrad
Chair: R. Windle
Professors: T. Corsi, M. Dresner, C. Grimm, B. Leete, P. Morici, R. Windle
Associate Professors: P. Evers, J. Newberg
Assistant Professors: W. Chung, R. Sampson, D. Somaya
Lecturers: W. DeWitt (Professor of Practice), W. McClanahan, J. Miller, C. Olson (Tyser Teaching Fellow), B. Shaffer (Tyser Teaching Fellow), H. Turner (Tyser Teaching Fellow)

The Major

Three curriculum concentrations are offered through the Logistics, Business, and Public Policy department:

1. Logistics, Transportation, and Supply Chain Management
2. General Business (includes an Entrepreneurship Track)
3. International Business

Logistics, Transportation, and Supply Chain Management: The supply chain encompasses all organizations involved in production of a good or service and its ultimate delivery to the end customer. Supply chain managers oversee many varied but inter-related processes including the flow of materials, information, and transactions. Logistics deals primarily with the materials flow component of the supply chain, and logistics managers are responsible for fulfilling customer orders while simultaneously controlling distribution costs.

While transportation is the heart of logistics; inventory control, warehousing, order processing, materials handling, packaging, and customer service are important logistics activities. These logistics activities comprise up to 30 percent of total costs for many businesses. The cost of freight transportation alone is about 8 percent of the nation's annual domestic product.

General Business is designed for those who desire a broad course of study in business and management. This degree is appropriate, for example, for those who plan to enter small-business management or entrepreneurship where general knowledge of the various fields of study may be preferred to a more specialized curriculum concentration.

International Business responds to the global interest in international economic systems and their multicultural characteristics. This degree combines the college-required courses with International Business courses and provides students the opportunity to apply a specified upper level foreign language course toward this specialization's requirements. It is strongly recommended that this program be declared in combination with another major in or outside of business in order to assure that graduates will have specialized career focus.

Admission to the Major

See Robert H. Smith School of Business entry in chapter 6 for admission requirements.

Requirements for the Major
Logistics, Transportation, and Supply Chain Management

Course requirements for the junior-senior curriculum concentration in Logistics, Transportation, and Supply Chain Management are as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT370</td>
<td>Introduction to Transportation in Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>BMGT372</td>
<td>Introduction to Logistics and Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>BMGT476</td>
<td>Applied Computer Models in Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>BMGT373</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td>BMGT470</td>
<td>Advanced Transportation Management</td>
<td></td>
</tr>
<tr>
<td>BMGT472</td>
<td>Advanced Logistics Operations</td>
<td></td>
</tr>
<tr>
<td>BMGT475</td>
<td>Advanced Supply Chain Management Strategy and Technologies</td>
<td></td>
</tr>
<tr>
<td>BMGT477</td>
<td>International Supply Chain Management</td>
<td></td>
</tr>
</tbody>
</table>

*Two of the following courses:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT373</td>
<td>Logistics, Transportation, and Supply Chain Management</td>
<td>6</td>
</tr>
<tr>
<td>BMGT305</td>
<td>Survey of Business Information Systems and Technology</td>
<td>3</td>
</tr>
<tr>
<td>BMGT332</td>
<td>Operations Research for Management Decisions</td>
<td></td>
</tr>
<tr>
<td>BMGT385</td>
<td>Operations Management</td>
<td></td>
</tr>
<tr>
<td>BMGT482</td>
<td>Business and Government</td>
<td></td>
</tr>
<tr>
<td>BMGT484</td>
<td>Electronic Marketing</td>
<td></td>
</tr>
<tr>
<td>GEOG373</td>
<td>Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG430</td>
<td>Location Theory and Spatial Analysis*</td>
<td></td>
</tr>
</tbody>
</table>

**Upper Level Economics Requirement**

*One of the following courses:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON305</td>
<td>Intermediate Macroeconomic Theory and Policy</td>
<td>3</td>
</tr>
<tr>
<td>ECON306</td>
<td>Intermediate Microeconomic Theory</td>
<td></td>
</tr>
<tr>
<td>ECON330</td>
<td>Money and Banking</td>
<td></td>
</tr>
<tr>
<td>ECON340</td>
<td>International Economics</td>
<td></td>
</tr>
</tbody>
</table>

*One additional ECON from the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

**Total**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

* or one of the following not selected from above: BMGT 373, 470, 472, 475 or 477

General Business

Course requirements for the junior-senior curriculum concentration in General Business and Management Standard Track and Entrepreneurship Track are as follows:

**Required of all General Business majors:**

*One of the following (Supply Chain Management)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT372</td>
<td>Introduction to Logistics &amp; Supply Chain Mgt.</td>
<td>3</td>
</tr>
<tr>
<td>BMGT385</td>
<td>Operations Management</td>
<td></td>
</tr>
</tbody>
</table>

*One of the following (Marketing)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT353</td>
<td>Retail Management</td>
<td>3</td>
</tr>
<tr>
<td>BMGT450</td>
<td>Integrated Marketing Communications</td>
<td></td>
</tr>
</tbody>
</table>

*One of the following (International Business/Public Policy)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT392</td>
<td>Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>BMGT482</td>
<td>Business and Government</td>
<td></td>
</tr>
</tbody>
</table>
BMGT496  Business, Ethics and Society

In addition, General Business majors must complete one of the following tracks:

**Standard Track**
*One of the following (Accounting/Finance)*
- BMGT321  Managerial Accounting  3
- BMGT440  Advanced Financial Management

*One of the following (Management & Organization)*
- BMGT360  Human Resource Management
- BMGT461  Entrepreneurship

*One of the following (Decision & Information Technologies)*
- BMGT305  Survey of Business Info. Systems & Technology
- BMGT332  Operations Research for Management Decisions

**Entrepreneurship Track**
*One of the following:*  3
- BMGT361  Entrepreneurship: Starting & Managing the Entrepreneurial Venture
  or
- BMGT461  Entrepreneurship
- BMGT365  Entrepreneurial Finance & Private Equity  3
- BMGT366  Growth Strategies for Emerging Companies  3
- BMGT465  Business Plan for the New Venture  3

**Total Major Requirements**  18/21

**Upper Level Economics Requirements**
*Two of the following courses:*  6
- ECON305  Intermediate Macroeconomic Theory & Policy
- ECON306  Intermediate Microeconomic Theory
- ECON330  Money and Banking
- ECON340  International Economics

**International Business**

Course requirements for the junior-senior curriculum concentration in International Business are:

<table>
<thead>
<tr>
<th>Credits</th>
<th>BMGT392  Introduction to International Business  3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BMGT454  International Marketing  3</td>
</tr>
<tr>
<td></td>
<td>BMGT477  International Supply Chain Management  3</td>
</tr>
<tr>
<td></td>
<td>BMGT446  International Finance  3</td>
</tr>
<tr>
<td></td>
<td>BMGT463  Cross-cultural Challenges in Business  3</td>
</tr>
<tr>
<td></td>
<td>BMGT466  Global Business Strategy  3</td>
</tr>
</tbody>
</table>

**Total BMGT**  18

| Credits | ECON340  International Economics  3 |
One of the following:  
ECON 305, 306, 315, 316, 330, 380 or agreed upon foreign language credits which includes CHIN 412, FREN 406, GERM 412, ITAL 406, JAPN 404, RUSS407, SPAN 415

Total ECON/LANGUAGE 6

In addition to the major requirements listed above, please consult Chapter 6 or www.rhsmith.umd.edu for a listing of additional Smith School degree requirements that apply to all Smith School majors.

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Logistics, Transportation and Supply Chain Management

For information, see Logistics, Business and Public Policy elsewhere in Chapter 7.

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MARKETING (BMGT)

The Robert H. Smith School of Business
1570 Van Munching Hall, 301-405-2286
www.rhsmith.umd.edu/undergrad

Chair: R. Rust
Professors: A. Kirmani, R. Rust, M. Wedel
Associate Professors: G. Biehal, S. Jain, P. Kannan, R. Ratner, J. Srivastava, J. Wagner
Assistant Professors: R. Ferraro, Y. Foutz, R. Hamilton, W. Moe
Lecturers: H. Boyd (Tyser Teaching Fellow)
Professors Emeriti: T. Greer, W. Nickels (Assoc Prof Emeritus)
Visiting Faculty: R. Lefkoff (Tyser Teaching Fellow), D. Whitney (Tyser Teaching Fellow)

The Major

The goal of marketing is to satisfy all the stakeholders of the firm—employees, dealers, stockholders, and customers—by seeing that quality goods and services are developed and provided at fair prices and in a way that benefits the community and society. World-class competition has forced businesses to develop marketing programs that are as good as the best. This means getting closer to the customer, joining other organizations to create value for the consumer, and designing integrated distribution and communication programs that provide a seamless flow from producers to consumers. Pricing, communication/promotion, product/service, and distribution activities inherent in the development of marketing programs are applicable to non-profit organizations, business-to-business organizations, and firms that sell to ultimate consumers.

Many types of careers are available to the marketing major. These include, but are not limited to: sales, advertising, retailing, product/service management, and marketing research. Because of the many different employment opportunities in marketing, many marketing electives are offered along with three core courses required of all marketing majors—consumer analysis, marketing research, and marketing strategy.

Admission to the Major

See Robert H. Smith School of Business entry in chapter 6 for admission requirements.

Requirements for the Major

Course requirements for the junior-senior curriculum concentration in Marketing are as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT451</td>
<td>Consumer Analysis</td>
<td>3</td>
</tr>
<tr>
<td>BMGT452</td>
<td>Marketing Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>BMGT457</td>
<td>Marketing Policies and Strategies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Three of the following courses:</strong></td>
<td><strong>9</strong></td>
</tr>
<tr>
<td>BMGT351</td>
<td>Direct Marketing</td>
<td></td>
</tr>
<tr>
<td>BMGT353</td>
<td>Retail Management</td>
<td></td>
</tr>
<tr>
<td>BMGT357</td>
<td>Retailing and Marketing Internship (3 credits only)</td>
<td></td>
</tr>
<tr>
<td>BMGT372</td>
<td>Introduction to Logistics and Supply Chain Management</td>
<td></td>
</tr>
<tr>
<td>BMGT450</td>
<td>Integrated Marketing Communications</td>
<td></td>
</tr>
<tr>
<td>BMGT453</td>
<td>Industrial Marketing</td>
<td></td>
</tr>
<tr>
<td>BMGT454</td>
<td>International Marketing</td>
<td></td>
</tr>
</tbody>
</table>
BMGT455  Sales Management
BMGT484  Electronic Marketing  

**Total BMGT**  18

**One of the following:**  3
ECON305  Intermediate Macroeconomic Theory and Policy
ECON306  Intermediate Microeconomic Theory
ECON330  Money and Banking
ECON340  International Economics

*One additional ECON from the following:*  3
ECON 305, 306, 311, 315, 316, 317, 330, 340, 361, 370, 74, 375, 380 or any 400-level ECON

**Total ECON**  6

In addition to the major requirements listed above, please consult [Chapter 6 or www.rhsmith.umd.edu](http://www.rhsmith.umd.edu) for a listing of additional Smith School degree requirements that apply to all Smith School majors.
MATHEMATICS (MATH)

Faculty

Chair: P. Fitzpatrick (Prof)


Assistant Professors: W. Czaja, L. Koralov, D. Margetis, K. Okoudjou, K. Prasanna

Lecturers: C. Cremins, J. Daberkow, D. Franklin (Senior Lecturer), F. Gulick (Senior Lecturer), K. McLaren (Senior Lecturer), J. Stone, J. Wyss-Gallifent

Affiliate Professors: D. O'Leary, G. Stewart (Dist Univ Prof)


The Major

The program in mathematics leads to a degree of Bachelor of Science in mathematics and offers students training in preparation for graduate work, teaching, and positions in government or industry. Mathematical training is integrated with computer use in several courses. Because a strong mathematical background is important in many fields, over a third of UMCP mathematics majors are double majors. Additional information on these topics and mathematics is available from the departmental website.

Program Objectives

The Department of Mathematics educates its majors in a broad range of modern mathematics while instilling in them a strong ability to solve problems, apply mathematics to other areas, and create rigorous mathematical arguments. The program prepares the majors to further their mathematical education in graduate school, or to teach at the secondary school level, or to work in government or business.

Program Learning Outcomes

1. Students will acquire problem-solving skills in a broad range of significant mathematics.
2. Students will gain an understanding of what constitutes mathematical thinking, including the ability to produce and judge the validity of rigorous mathematical arguments.
3. Students will be able to communicate mathematical ideas and arguments.
4. Students will be prepared to use mathematics in their future endeavors, not only in the discipline of mathematics, but also in other disciplines.

Academic Programs and Departmental Facilities
Combined B.S./M.A. Program in Mathematics

The Department of Mathematics offers a combined B.S./M.A. degree program for students with exceptional ability and interest in mathematics. Students enrolled in the Combined Degree Program may count up to 9 credits of coursework taken for their undergraduate degree toward the M.A. degree as well. For further information, please consult the Mathematics Department Web Page: www.math.umd.edu/undergraduate/majors.

Placement in Courses

The Department of Mathematics has a large offering to accommodate a great variety of backgrounds, interests, and abilities. The department permits students to take any course for which they have the appropriate background, regardless of formal course work. For example, students with a high school calculus course may be permitted to begin in the middle of the calculus sequence even if they do not have advanced standing. Students may obtain undergraduate credit for mathematics courses in any of the following ways: passing the appropriate CEEB Advanced Placement Examination, passing standardized CLEP examinations and through the department’s Credit-by-Examination. Students are urged to consult with advisors from the Department of Mathematics to assist with proper placements.

Statistics and Probability and Applied Mathematics

Courses in statistics and probability and applied mathematics are offered by the Department of Mathematics. These courses are open to non-majors as well as majors, and carry credit in mathematics. Students wishing to concentrate in the above may do so by choosing an appropriate program under the Department of Mathematics.

Requirements for the Major

There are three tracks for the major: the traditional track, the secondary education track, and the statistics track. The secondary education track is for students seeking to become certified to teach mathematics at the secondary level. Each mathematics major must complete each required course with a grade of C or better.

TRADITIONAL TRACK

<table>
<thead>
<tr>
<th>Introductory Sequence *</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH140 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH141 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH240 Introduction to Linear Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH241 Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>One from:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH246 Differential Equations for Scientists and Engineers</td>
</tr>
<tr>
<td>MATH341 Multivariable Calculus, Linear Algebra, Differential Equations</td>
</tr>
<tr>
<td>MATH414 Differential Equations</td>
</tr>
<tr>
<td>MATH436 Differential Geometry of Curves and Surfaces I</td>
</tr>
<tr>
<td>MATH462 Partial Differential Equations for Scientists and Engineers</td>
</tr>
</tbody>
</table>

Eight MATH/AMSC/STAT courses** at the 400-level or higher; must include:

| Advanced Calculus I*** | 3 |

One From:

<p>| Applications of Linear Algebra | 3 |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH403</td>
<td>Introduction to Abstract Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH405</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>AMSC460</td>
<td>Computational Methods</td>
<td>3</td>
</tr>
<tr>
<td>AMSC466</td>
<td>Introduction to Numerical Analysis I</td>
<td>3</td>
</tr>
</tbody>
</table>

One From:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 410/411</td>
<td>Advanced Calculus I and II</td>
<td>6</td>
</tr>
<tr>
<td>MATH 410/412</td>
<td>Advanced Calculus I / Adv Calc w/Applications</td>
<td>6</td>
</tr>
<tr>
<td>MATH 403/404</td>
<td>Introduction to Abstract Algebra / Field Theory</td>
<td>6</td>
</tr>
<tr>
<td>MATH 403/405</td>
<td>Introduction to Abstract Algebra / Linear Algebra</td>
<td>6</td>
</tr>
<tr>
<td>STAT 410/420</td>
<td>Introduction to Probability Theory / Introduction to Statistics</td>
<td>6</td>
</tr>
</tbody>
</table>

**Depth Requirement; a one year sequence chosen from the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMSC106</td>
<td>Introduction to C Programming</td>
<td>4</td>
</tr>
<tr>
<td>CMSC114</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CMSC131</td>
<td>Object-Oriented Programming I</td>
<td>4</td>
</tr>
<tr>
<td>CMSC132</td>
<td>Object-Oriented Programming II</td>
<td>4</td>
</tr>
<tr>
<td>ENAE202</td>
<td>Aerospace Computing</td>
<td>3</td>
</tr>
<tr>
<td>ENEE114</td>
<td>Programming Concepts for Engineering</td>
<td>4</td>
</tr>
<tr>
<td>PHYS165</td>
<td>Introduction to Programming in the Physical Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives+**

400 level courses *(may not include: MATH 400, 461, 478, 480-484, STAT 464)*

**One from:**

*(A student may be exempt from this requirement if (s)he can demonstrate adequate programming knowledge from prior course or work experience.)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMSC106</td>
<td>Introduction to C Programming</td>
<td>4</td>
</tr>
<tr>
<td>CMSC114</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>CMSC131</td>
<td>Object-Oriented Programming I</td>
<td>4</td>
</tr>
<tr>
<td>CMSC132</td>
<td>Object-Oriented Programming II</td>
<td>4</td>
</tr>
<tr>
<td>ENAE202</td>
<td>Aerospace Computing</td>
<td>3</td>
</tr>
<tr>
<td>ENEE114</td>
<td>Programming Concepts for Engineering</td>
<td>4</td>
</tr>
<tr>
<td>PHYS165</td>
<td>Introduction to Programming in the Physical Sciences</td>
<td>3</td>
</tr>
</tbody>
</table>

**Supporting three-course sequence**

*Intended to broaden the student's mathematical experience. (Other sequences might be approved by the Undergraduate Office but they would have to make use of mathematical ideas, comparable to the sequences on this list.) Choose one sequence:*

**Sequence One**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS161</td>
<td>General Physics: Mechanics and Particle Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS260/261</td>
<td>General Physics: Vibration, Waves, Heat, Electricity and Magnetism/Lab</td>
<td>4</td>
</tr>
<tr>
<td>PHYS270/271</td>
<td>General Physics: Electrodynamics, Light, Relativity and Modern/Lab</td>
<td>4</td>
</tr>
</tbody>
</table>
### Sequence Two

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS171</td>
<td>Introductory Physics: Mechanics and Relativity</td>
<td>3</td>
</tr>
<tr>
<td>PHYS272</td>
<td>Introductory Physics: Fields</td>
<td>3</td>
</tr>
<tr>
<td>PHYS273</td>
<td>Introductory Physics: Waves</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sequence Three

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENES102</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS161</td>
<td>General Physics: Mechanics and Particle Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ENES220</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sequence Four

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMSC132</td>
<td>Object-Oriented Programming II</td>
<td>4</td>
</tr>
<tr>
<td>CMSC212</td>
<td>Introduction to Low-Level Programming Concepts</td>
<td>4</td>
</tr>
<tr>
<td>CMSC250</td>
<td>Discrete Structures</td>
<td>4</td>
</tr>
</tbody>
</table>

### Sequence Five

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM146/147</td>
<td>Principles of General Chemistry/Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM237</td>
<td>Principles of Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM247</td>
<td>Principles of Organic Chemistry II</td>
<td>4</td>
</tr>
</tbody>
</table>

### Sequence Six

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM131/132</td>
<td>Chemistry I - Fundamentals of General Chemistry/Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM231/232</td>
<td>Organic Chemistry I/Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM241/242</td>
<td>Organic Chemistry II/Lab</td>
<td>4</td>
</tr>
</tbody>
</table>

### Sequence Seven

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON200</td>
<td>Principles of Micro-Economics</td>
<td>4</td>
</tr>
<tr>
<td>ECON201</td>
<td>Principles of Macro-Economics</td>
<td>4</td>
</tr>
<tr>
<td>ECON305</td>
<td>Intermediate Macroeconomic Theory and Policy, OR</td>
<td>3</td>
</tr>
<tr>
<td>ECON306</td>
<td>Intermediate Microeconomic Theory</td>
<td>3</td>
</tr>
</tbody>
</table>

### Sequence Eight

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMGT 220</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BMGT221</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>BMGT340</td>
<td>Business Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

* Or honors sequence: MATH 340-341. Completion of MATH 340 satisfies the requirement for MATH 241; completion of MATH 340-341 satisfies the requirement for MATH 240-241-246.

** At least four courses must be taken at College Park.

*** Most students are strongly encouraged to complete MATH 310 prior to attempting MATH 410.
Students with a strong interest in applied mathematics may, with the approval of the Undergraduate Office, substitute two courses (with strong mathematics content) from outside the Mathematics Department for one upper-level elective course.

<table>
<thead>
<tr>
<th>Secondary Education Track</th>
<th>T</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introductory Sequence</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH140 Calculus I</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>MATH141 Calculus II</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>MATH240 Introduction to Linear Algebra</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>MATH241 Calculus III</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH246 Differential Equations for Scientists and Engineers</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH341 Multivariable Calculus, Linear Algebra, Differential Equations</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>MATH401 Applications of Linear Algebra</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH452 Introduction to Dynamics and Chaos</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH462 Partial Differential Equations for Scientists and Engineers</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>AMSC460 Computational Methods</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>AMSC466 Introduction to Numerical Analysis I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Seven MATH/AMSC/STAT courses</strong> at the 400-level or higher; must include:**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH410 Advanced Calculus I***</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH430 Euclidean and Non-Euclidean Geometries</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH402 Algebraic Structures</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH403 Introduction to Abstract Algebra</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT400 Applied Probability and Statistics I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>STAT410 Introduction to Probability Theory</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH406 Introduction to Number Theory</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH445 Elementary Mathematical Logic</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH446 Axiomatic Set Theory</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH450 Logic for Computer Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH456 Cryptology</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH475 Combinatorics and Graph Theory</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400-level MATH/AMSC/STAT course (may not include: MATH 400, 461, 478, 480-484, or STAT 464)**</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(A student may be exempt from this requirement if (s)he can demonstrate adequate programming knowledge from prior course or work experience.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMSC106 Introduction to C Programming</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CMSC114 Computer Science I</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CMSC131 Object-Oriented Programming I</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CMSC132 Object-Oriented Programming II</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>ENAE202 Aerospace Computing</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>ENEE114 Programming Concepts for Engineering</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>PHYS165 Introduction to Programming in the Physical Sciences</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Education Requirements</strong>†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDCI450 Student Teaching Seminar in Secondary Education: Mathematics</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>EDCI451 Student Teaching in Secondary Schools: Mathematics</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**Supporting Sequence**

One of the following supporting two course sequences: These are intended
to broaden the student’s mathematical experience.

**Sequence One**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM131/132</td>
<td>Chemistry I - Fundamentals of General Chemistry/Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHEM231/232</td>
<td>Organic Chemistry I/Lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Sequence Two**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS161</td>
<td>General Physics: Mechanics and Particle Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS260/261</td>
<td>General Physics: Vibration, Waves, Heat, Electricity and Magnetism/Lab</td>
<td>4</td>
</tr>
</tbody>
</table>

**Sequence Three**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSCI105</td>
<td>Principles of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BSCI106</td>
<td>Principles of Biology II</td>
<td>4</td>
</tr>
</tbody>
</table>

**Sequence Four**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR120</td>
<td>Introductory Astrophysics - Solar System</td>
<td>3</td>
</tr>
<tr>
<td>ASTR121</td>
<td>Introductory Astrophysics II - Stars and Beyond</td>
<td>4</td>
</tr>
</tbody>
</table>

**Sequence Five**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL100/110</td>
<td>Physical Geology/Lab</td>
<td>4</td>
</tr>
<tr>
<td>GEOL322</td>
<td>Mineralogy, OR</td>
<td>4</td>
</tr>
<tr>
<td>GEOL340</td>
<td>Geomorphology, OR</td>
<td>4</td>
</tr>
<tr>
<td>GEOL341</td>
<td>Structural Geology, OR</td>
<td>4</td>
</tr>
<tr>
<td>GEOL375</td>
<td>Introduction to the Blue Ocean</td>
<td>3</td>
</tr>
</tbody>
</table>

* Or honors sequence: MATH 340-341. Completion of MATH 340 satisfies the requirement for MATH 241; completion of MATH 340-341 satisfies the requirement for MATH 240-241-246.

** At least four courses must be taken at College Park.

*** Most students are strongly encouraged to complete MATH 310 prior to attempting MATH 410.

+ The student-teaching pair EDCI 450-451 is 13 credits and has further prerequisites in the College of Education. In order to take these courses the student must be admitted into the College of Education. A student in the secondary education track of the mathematics major would normally be expected to receive a double major in Mathematics and Mathematics Education.

### Statistics Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH140</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH141</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH240</td>
<td>Introduction to Linear Algebra</td>
<td>4</td>
</tr>
<tr>
<td>MATH241</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH246</td>
<td>Differential Equations for Scientists and Engineers</td>
<td>3</td>
</tr>
<tr>
<td>MATH341</td>
<td>Multivariable Calculus, Linear Algebra, Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>MATH414</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
</tbody>
</table>

**Eight MATH/AMSC/STAT courses**; must include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH410</td>
<td>Advanced Calculus I***</td>
<td>3</td>
</tr>
<tr>
<td>STAT410</td>
<td>Introduction to Probability Theory</td>
<td>3</td>
</tr>
<tr>
<td>STAT430</td>
<td>Introduction to Statistical Computing and SAS</td>
<td>3</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMSC460</td>
<td>Computational Methods</td>
<td>3</td>
</tr>
<tr>
<td>AMSC466</td>
<td>Introduction to Numerical Analysis I</td>
<td>3</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH401</td>
<td>Applications of Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH405</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT401</td>
<td>Applied Probability and Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>STAT420</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Two additional courses from the following list:**
STAT4-- Any 400-level or higher STAT courses \textit{(except STAT 464)}

MATH411 Advanced Calculus II 3
MATH412 Advanced Calculus with Applications 3
MATH414 Differential Equations 3
MATH424 Introduction to the Mathematics of Finance 3
MATH464 Transform Methods for Scientists and Engineers 3
AMSC 477 Optimization 3
BIOM 402 Statistics for Human and Veterinary Medicine 3

One from:
(A student may be exempt from this requirement if (s)he can demonstrate adequate programming knowledge from prior course or work experience.)

CMSC106 Introduction to C Programming 4
CMSC114 Computer Science I 4
CMSC131 Object-Oriented Programming I 4
CMSC132 Object-Oriented Programming II 4
ENAE202 Aerospace Computing 3
ENEE114 Programming Concepts for Engineering 4
PHYS165 Introduction to Programming in the Physical Sciences 3

Supporting three-course sequence
Intended to broaden the student's mathematical experience. (Other sequences might be approved by the Undergraduate Office but they would have to make use of mathematical ideas comparable to the sequences on this list.) Choose one sequence.

Sequence One
PHYS161 General Physics: Mechanics and Particle Dynamics 3
PHYS260/261 General Physics: Vibration, Waves, Heat, Electricity and Magnetism/Lab 4
PHYS270/271 General Physics: Electrodynamics, Light, Relativity and Modern/Lab 4

Sequence Two
PHYS171 Introductory Physics: Mechanics and Relativity 3
PHYS272 Introductory Physics: Fields 3
PHYS273 Introductory Physics: Waves 3

Sequence Three
ENES102 Statics 3
PHYS161 General Physics: Mechanics and Particle Dynamics 3
ENES220 Mechanics of Materials 3

Sequence Four
CMSC132 Object-Oriented Programming II 4
CMSC212 Introduction to Low-Level Programming Concepts 4
CMSC250 Discrete Structures 4

Sequence Five
CHEM146/147 Principles of General Chemistry/Lab 4
CHEM237 Principles of Organic Chemistry I 4
CHEM247 Principles of Organic Chemistry II 4

Sequence Six
CHEM131/132 Chemistry I - Fundamentals of General Chemistry/Lab 4
CHEM231/232 Organic Chemistry I/Lab 4
CHEM241/242 Organic Chemistry II/Lab 4

Sequence Seven
ECON200 Principles of Micro-Economics 4
ECON201 Principles of Macro-Economics 4
ECON305 Intermediate Macroeconomic Theory and Policy, \textbf{OR} 3
ECON306 Intermediate Microeconomic Theory 3

Sequence Eight
BMGT 220 Principles of Accounting I 3
BMGT221 Principles of Accounting II 3
BMGT340 Business Finance 3

* Or honors sequence: MATH 340-341. Completion of MATH 340
satisfies the requirement for MATH 241; completion of MATH 340-341 satisfies the requirement for MATH 240-241-246.

** At least four courses must be taken at College Park.

*** Most students are strongly encouraged to complete MATH 310 prior to attempting MATH 410.

Other Requirements for the Major

**AREAS OF STUDY**

Within the Department of Mathematics there are a number of identifiable areas which students can pursue to suit their own goals and interests. They are briefly described below. Note that they do overlap and that students need not confine themselves to one of them.

1. **Pure mathematics:** The courses that clearly belong to this area are: MATH 402, 403, 404, 405, 406, 410, 411, 414, 430, 432, 436, 437, 445, 446, 452, 456, and STAT 410, 420. Students preparing for graduate school in mathematics should include MATH 403, 405, 410 and 411 (or 412) in their programs. MATH 463 (or 660) and MATH 432 (or 730) are also desirable. Other courses from the above list and graduate courses are also appropriate.

2. **Secondary teaching:** In addition to the courses required by the Secondary Education Track, the following courses are particularly suited for students preparing to teach: MATH 401, MATH 406, MATH 445, and MATH 475.

EDHD 413, EDHD 426, EDPL 301, EDCI 463, EDCI 455, EDCI 457, EDCI 450, EDCI 451, and EDCI 474 are required for certification. Before registering for EDCI 455, EDCI 355, EDCI 450, EDCI 451, or EDCI 474, students must apply for and be admitted to the College of Education's Secondary Education Program. For more information, see the College of Education website: www.education.umd.edu/studentinfo.

3. **Statistics:** For a student with a Bachelor's degree seeking work requiring some statistical background, the minimal program is STAT 400-401. To work primarily as a statistician, one should combine STAT 400-401 with STAT 430 and at least one more statistics course, most suitably, STAT 440. A stronger sequence is STAT 410, 420, 430. This offers a better understanding and wider knowledge of statistics and is a general purpose program (i.e., does not specify one area of application). For operations research AMSC 477 should be added. For economics applications, MATH 424, STAT 400, 401, 430, 440, and AMSC 477 should be considered. To prepare for graduate work, STAT 410 and 420 give the best background, with STAT 405, 430, 440 added at some later stage.

4. **Computational mathematics:** There are a number of math courses which emphasize the computational aspects of mathematics including the use of the computer. They are AMSC 460, 466, MATH 431, 450, 456, 475 and STAT 430. Students interested in this area should take the CMSC supporting sequence as soon as possible.

5. **Applied mathematics:** The courses which lead most rapidly to applications are the courses listed above in 3 and 4 and MATH 401, 412, 414, 431, 436, 462, 463, and 464. A student interested in applied mathematics should obtain, in addition to a solid training in mathematics, a good knowledge of at least one area in which mathematics is currently being applied. Concentration in this area is good preparation for employment in government and industry or for graduate study in applied mathematics.

**Requirements for the Minor**

The Department of Mathematics offers Minors in the following areas:

Actuarial Mathematics
Mathematics
Statistics

A Minor offers a structured program of study outside a student’s major. See www.math.umd.edu/undergraduate/opportunities for detailed information.
Advising

Advising for math majors is mandatory. Students are required to sign up for an advising appointment at the math undergraduate office window (1117 Mathematics Building), beginning the week before early registration. Students who have been away more than two years may find that due to curriculum changes the courses they have taken may no longer be adequate preparation for the courses required to complete the major. Students in this situation must meet with the Department Advisor to make appropriate plans.

Undergraduate Research Experiences

There are a variety of undergraduate research opportunities in mathematics at Maryland. For detailed information see www.math.umd.edu/undergraduate/opportunities/

Honors Program

The Mathematics Honors Program is designed for students showing exceptional ability and interest in mathematics. Its aim is to give a student the best possible mathematics education. Participants are selected by the Departmental Honors Committee during the first semester of their junior year. A precise statement of the requirements may be found at www.math.umd.edu/undergraduate/opportunities

The department also offers a special department honors sequence MATH 340-341 for promising freshmen with a strong mathematical background (including calculus). Enrollment in the sequence is normally by invitation but any interested student may apply to the Mathematics Department for admission. Participants in the University Honors Program may also enroll in special honors sections of the lower-level mathematics courses (MATH 140H, 141H, 240H, 241H, 246H). Students in Math 340-341 and the special honors sections need not be math majors.

The mathematics departmental honors sequence and the University Honors Program are distinct, and enrollment in one does not imply acceptance in the other.

Awards and Recognition

Aaron Strauss Scholarships: Up to two are awarded each year to outstanding junior math majors. The recipient receives full remission of (in-state) tuition and fees. Applications may be obtained early in the spring semester from the Mathematics Undergraduate Office, 1117 Mathematics Building.

Aziz Mathematics Scholarship: A monetary award is made on the basis of mathematical excellence.

Carol Karp Award: A monetary award is made to a junior or senior math major for outstanding achievement in logic.

Krahn Scholarship: A monetary award is made on the basis of performance in the Maryland High School Mathematics Competition.

Higginbotham Prize: A monetary award is made to an outstanding junior math major in the spring.

Milton Abramowitz Award: A monetary award is made to an outstanding junior or senior math major in the spring.

Outstanding Senior Award: A monetary award is made to the outstanding graduating math major.

Secondary Education-Mathematics (SEM) Scholarship: Up to two are awarded in the spring to Secondary Education-Mathematics double majors.

For further information on awards, consult www.math.umd.edu/undergraduate/opportunities
Materials Science and Engineering (ENMA, ENNU)

A. James Clark School of Engineering
2135 Chemical and Nuclear Engineering Building, 301-405-5207
www.mse.umd.edu
Chair: R. Briber
Professors: M. Al-Sheikhly, S. Ankem, M. Bernstein (Vice President, Prof Of Practice), A. Christou, B. Han, G. Oehrlein, A. Roytburd, G. Rubloff, L. Salamanca-Riba, M. Wuttig
Associate Professors: I. Lloyd, L. Martinez-Miranda, G. Pertmer, R. Phaneuf, I. Takeuchi
Assistant Professors: M. Cukier, J. Cumings, J. Seog
Lecturers: M. Massoud, D. Ross
Affiliate Associate Professors: K. Hathaway, P. Kofinas, S. Mohammad, M. Zachariah
Adjunct Professors: J. Rush
Adjunct Assistant Professors: J. Cui
Professors Emeriti: R. Arsenault, Y. Hsu, J. Silverman, B. Smith

The Major

The development, production and use of novel materials has become a major issue in all fields of engineering. Materials which are strong and light at the same time are needed for space structures; faster electro-optical switching materials will result in improved mass communications; and stronger high temperature plastics would improve the efficiency of transportation systems. Students will have the opportunity to work with faculty and industry on complex problems through projects, internships, and research and co-op experiences. A wide variety of careers are open to graduates of this program ranging from production and quality control in the traditional materials industries to the molecular construction of electronic materials in ultra-clean environments, and to the applications of materials in electronic packages. The application of materials to solve environmental, biomedical, energy, and reliability problems are also career options.

Students may major in the Bachelor of Science in Materials Science and Engineering Program. Courses offered by this department may be found under the acronym ENMA.

Program Objectives

The mission of the Materials Science and Engineering Department at the University of Maryland is to provide a quality engineering education, research at the forefront of the field, and leadership to the Materials and Engineering communities. Our educational programs will have the following objectives:

- Produce high quality graduates who will be successful in their chosen careers in industry, government or academia, in the State of Maryland, the nation and the world
- Give our students the foundation to define and solve engineering and science problems in the field of Materials Science and Engineering throughout their careers
- Provide our students with the ability to relate basic physics, math and engineering principles to the field of Materials Science and Engineering so they can function professionally as materials engineers and scientists
- Prepare our students to design and engineer materials and manufacturing systems for the next generation of products and deal effectively with the rapid pace of technological advances
- Continually improve our educational program, attract the best students and improve the visibility and stature of the program.

The Department will support our students with an educational program at both the graduate
and undergraduate levels that has sufficient breadth in both fundamental and specialized engineering topics to insure our graduates meet the current and future needs of society. In the area of research, the Department conducts a range of scientific research programs and establishes partnerships with government and industry, both in Maryland and elsewhere, to accomplish this goal.

**Educational Outcomes**

The overall educational outcomes of the Materials Science and Engineering Program are to provide undergraduate engineering students:

- A solid foundation in mathematics, physics, chemistry, and basic engineering sciences
- An integrated program emphasizing structure, properties, processing and performance and the inter-relations between them along with the design of materials systems, experiments and data interpretation
- An opportunity to develop in-depth knowledge in specific areas of materials science and engineering which include: applications of materials and manufacturing, materials science, organic materials, electrical and electronic materials or biomaterials
- The opportunity to work with faculty and industry on complex problems through projects, internships, and research and co-op experiences
- A culminating design experience centered about a senior design project which brings together the many aspects of materials science and engineering in a global context that prepares the student to function as a practicing engineer on a multi-disciplinary team
- Continuous improvement of written and oral communication skills throughout the curriculum through lab reports, papers and individual/group project presentations
- Emphasis on current science and technology of materials in the curriculum and the relationship to the engineering profession in a societal and global context
- Integration of professional and ethical responsibility in the curriculum
- Mandatory semester advising and planning of individually tailored educational and curriculum goals for students
- Mandatory mentoring for four semesters generally during the sophomore and junior years. This is intended to provide the student with increased access to faculty members an opportunity to discuss career options and preparation with other faculty members in addition to their advisor.

**Program Learning Outcomes**

The overall educational outcomes of the Materials Science and Engineering Program are to provide undergraduate engineering students:

- A solid foundation in mathematics, physics, chemistry, and basic engineering sciences
- An integrated program emphasizing structure, properties, processing and performance and the inter-relations between them along with the design of materials systems, experiments and data interpretation
- An opportunity to develop in-depth knowledge in specific areas of materials science and engineering which include: applications of materials and manufacturing, materials science, organic materials, electrical and electronic materials or biomaterials
- The opportunity to work with faculty and industry on complex problems through projects, internships, and research and co-op experiences
- A culminating design experience centered about a senior design project which brings together the many aspects of materials science and engineering in a global context that prepares the student to function as a practicing engineer on a multi-disciplinary team
- Continuous improvement of written and oral communication skills throughout the curriculum through lab reports, papers and individual/group project presentations
- Emphasis on current science and technology of materials in the curriculum and the relationship to the engineering profession in a societal and global context
- Integration of professional and ethical responsibility in the curriculum
- Mandatory semester advising and planning of individually tailored educational and curriculum goals for students
- Mandatory mentoring for four semesters generally during the sophomore and junior years. This is intended to provide the student with increased access to faculty members
and an opportunity to discuss career options and preparation with other faculty members in addition to their advisor.

**Academic Programs and Departmental Facilities**

The Department's research facilities are available to undergraduates interested in pursuing research opportunities. Interested undergraduates may work with a faculty member and his or her research team. Specific information on the facilities is available on the website: [www.mse.umd.edu/research/laboratories/html](http://www.mse.umd.edu/research/laboratories/html).

**Admission to the Major**

All Materials Science and Engineering students must meet admission, progress, and retention standards of the A. James Clark School of Engineering.

**Requirements for the Major**

Requirements for the Materials Science and Engineering major include thorough preparation in mathematics, chemistry, physics, and engineering science as well as the required University general education (CORE) requirements. All students will be required to select an area of specialization, an upper-class science elective, and two technical electives. A minimum of 123 credits is required for a bachelor's degree. A sample program follows:

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Sem</strong></td>
<td><strong>Second Sem</strong></td>
</tr>
<tr>
<td>CORE</td>
<td>6</td>
</tr>
<tr>
<td>ENES100</td>
<td>3</td>
</tr>
<tr>
<td>ENMA181*</td>
<td>1</td>
</tr>
<tr>
<td>CHEM135</td>
<td>3</td>
</tr>
<tr>
<td>CHEM136</td>
<td>1</td>
</tr>
<tr>
<td>MATH140</td>
<td>4</td>
</tr>
<tr>
<td>MATH141</td>
<td>4</td>
</tr>
<tr>
<td>ENGL101</td>
<td>3</td>
</tr>
<tr>
<td>ENES102</td>
<td>3</td>
</tr>
<tr>
<td>PHYS161</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14/15</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

*Recommended, but not required.

**Sophomore Year**

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Sem</strong></td>
</tr>
<tr>
<td>CORE</td>
</tr>
<tr>
<td>MATH241</td>
</tr>
<tr>
<td>MATH246</td>
</tr>
<tr>
<td>PHYS262/263</td>
</tr>
<tr>
<td>ENMA300</td>
</tr>
<tr>
<td>ENEE204</td>
</tr>
<tr>
<td>CHEM231*</td>
</tr>
<tr>
<td>CHEM481*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
*Chem 233 is required for students specializing in organic materials and recommended for students specializing in Biomaterials.

**Junior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>First Sem</th>
<th>Second Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE Program Requirements</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENMA310 Materials Laboratory I, Structural Characterization</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENMA311 Materials Laboratory II: Electromagnetic Properties</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENMA362 Mechanical Properties</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENMA460 Physics of Solid Materials</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENMA461 Thermodynamics of Materials</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENMA465 Microporcessing of Materials</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE** Specialization Electives</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>15</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Senior Year**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>First Sem</th>
<th>Second Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE Program Requirements</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENMA463 Macroporcessing of Materials</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENMA471 Kinetics, Diffusion and Phase Transformations</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENMA490 Materials Design</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVES** Specialization Electives</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELECTIVES Technical Electives</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENME392 Statistical Methods for Product and Processes Development, OR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENRE445 Applied Reliability Engineering I, OR</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENRE446 Applied Reliability Engineering II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE Upper-level science elective</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>18</strong></td>
<td><strong>15</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Minimum Degree Credits:** 124 or 125 credits and the fulfillment of all department, school, and university requirements.

**Students are expected to take four specialization electives in one particular area during their junior and senior years. Students must consult with their advisor to select the specialization courses.** Five
Other Requirements for the Major

Students majoring in Materials Science and Engineering must follow the academic policies developed by the A. James Clark School of Engineering. Students must achieve a C or better on all coursework in their major (including required non-engineering courses such as chemistry and physics). Students are encouraged to visit the Department webpage for a curriculum guideline and will develop a multi-year academic plan in conjunction with their advisor. All Materials Science and Engineering students must be mentored by a faculty member four times generally during their sophomore and junior years to assist them in choosing their specialization area and to plan for post graduation.

Requirements for the Minor

The Department ordinates an interdisciplinary minor in Nanoscale Science and Technology through The Maryland Nano Center.

Explosive growth in the field of nanometer scale science and technology (NS&T) has led in the past few years to many technological advances in devices and materials structured at the nanometer scale. The Interdisciplinary Minor Program of Study in Nanoscience and Technology at the University of Maryland is intended to prepare participating University of Maryland students for a career in this rapidly developing field. This program draws upon the considerable expertise in nanoscience at Maryland, in departments distributed among three schools: Engineering; Computer, Mathematics and Physical Sciences; and Chemistry and Life Sciences. Students take courses in Fabrication/Synthesis and Characterization, which emphasize the experimental side of NS&T, as well as Fundamental Science and Specialization Electives, which teach the underlying principles and directions, and include underlying theory and the motivations for NS&T. The minor is open to any student majoring in Engineering, Physics or Chemistry.

Completion of the program instills in students the broad perspective needed for nano, including understanding and experience in fabrication/synthesis of nanomaterials and structures, their characterization/measurement, the fundamental science underlying them, and their

suggested specialization areas with example classes follow.

**Materials Science:**

**Applications of Materials and Manufacturing:**

**Polymeric Materials:**
ENMA 423, 464, 489M, 495, 496, 499

**Electrical & Electronic Materials:**
ENMA 423, 464, 489M, 495, 496, 499

**Biomaterials:**
ENMA 423, 425, 464, 489M, 489T, 495, 496, 499
applications.

For more information see www.nanocenter.umd.edu/education/nano_minor/nano_minor.php or contact Director, Nano Minor Professor, Ray Phaneuf, MSE, or Education Coordinator, Nano Minor, Dr. Kathleen Hart, MSE.

Advising

Students choosing materials science and engineering as their major or materials engineering as their primary or secondary field of concentration should contact Dr. Kathleen Hart, Assistant Director of Student Services, Room 1113, Chemical and Nuclear Engineering Building, at 301-405-5989 or hart@umd.edu. Dr. Hart can direct students to their advisor: Professors Lloyd or Martinez-Miranda. Any questions about the program should be directed to Dr. Ray Phaneuf, Undergraduate Studies Director.

Undergraduate Research Experiences

The Department strongly supports undergraduate students who wish to pursue research opportunities. The student should discuss their interest with their advisor or with Dr. Hart or Dr. Phaneuf.

Internships

Students who wish to pursue an internship are encouraged to do so. They should discuss an internship with their advisor as they develop their academic plan. The Department will forward information about internships to our undergraduate students. They may also receive information on internships from the A. James Clark Co-op and Career Services Center at www.coop.eng.umd.edu/.

Co-op Programs

The Materials Science and Engineering program works within the A. James Clark School of Engineering Cooperative Engineering education Program. For details, see the A. James Clark School of Engineering entry in chapter 6.

Honors Program

The Department does not have a separate honors program. Academically strong students may apply for the Department's 5 year BS/MS program.

Student Societies and Professional Organizations

Undergraduate Societies
MatES is the undergraduate student society. Their lounge is located at 1111 Chem/Nuc Engineering Building (090). MatES is involved in a variety of professional and social activities.

Materials Research Society (MRS)
A student chapter of MRS meets during the academic year. The chapter organizes student research presentations, invites prospective employers for discussions and collectively provides a forum for student-faculty interactions. For more information, interested students should contact the Materials Program Office. If you have any questions, contact Professor Salamanca-Riba at riba@umd.edu.

The Minerals, Metals and Materials Society (TMS)
The TMS society is very active. If you have any questions, contact Professor S. Ankem at ankem@umd.edu.

Alpha Sigma Mu
Alpha Sigma Mu is the International Professional Honor Society for Materials Science and Engineering. Students with outstanding scholarship are nominated for membership and are eligible to be nominated for scholarships. If you have any questions, contact Professor and
Chair Robert Briber at rbriber@umd.edu.

Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

Faculty Merit Scholarships are offered to outstanding students by the department. Other scholarships are available through the A. James Clark School of Engineering. The department offers opportunities for research internships with faculty.

Awards and Recognition

Each of the large number of professional-materials-oriented societies such as the metallurgical and ceramic societies sponsor awards to recognize outstanding scholarship and undergraduate research. All students enrolled in the materials engineering program are encouraged to select a faculty advisor who in their junior and senior years will guide them towards nomination for these awards. Awards from MRS, TMS Societies are available.

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Mathematical Statistics Program (STAT)

College of Computer, Mathematical and Physical Sciences
1107 Mathematics Building, 301-405-5061
www.stat.umd.edu
Director: P. Smith (Assoc Prof)
Professors Emeriti: R. Syski (Prof Emeritus)

The Major

The Mathematical Statistics Program (within the Department of Mathematics) offers a variety of undergraduate courses to students in all disciplines as well as a graduate program for students concentrating in the study of Statistics, Probability and their application in real world problems.

In addition to an undergraduate program emphasizing Statistics that is available to majors in Mathematics, there are two minors in Statistics offered through the Department of Mathematics.

Requirements for the Minor

Minor in Statistics  - for information contact Professor Paul Smith (pjs@math.umd.edu)

Minor in Actuarial Mathematics  - for information contact Professor Eric Slud (evs@math.umd.edu)

Each of these Minors offers a structured program of 16 credits of study outside a student's major. For more information, see www.math.umd.edu/undergraduate/opportunities/minors.shtml

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MEASUREMENT, STATISTICS AND EVALUATION (EDMS)

College of Education
1230 Benjamin Building, 301-405-3624
www.education.umd.edu/EDMS
Chair: C. Dayton
Professors: G. Hancock, R. Lissitz, G. Macready, R. Mislevy
Assistant Professors: J. Harring
Adjunct Associate Professors: K. Alvestad

The Major

For Advanced Undergraduates

The Department of Measurement, Statistics and Evaluation in the College of Education offers a 5th Year MA program for undergraduates interested in quantitative methods. The purpose of this program is to allow highly motivated undergraduates the opportunity to develop their skills in quantitative methods. Students complete a BA (or BS) in their chosen major area along with an MA in Measurement, Statistics and Evaluation in just five years. Courses offered by this department may be found under the following acronym: EDMS.

Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu

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MECHANICAL ENGINEERING (ENME)

A. James Clark School of Engineering
2181 Engineering Classroom Building, 301-405-2410
www.enme.umd.edu
Chair: A. Bar-Cohen (Dist Univ Prof Chair)
Director: S. Ainane (Director, Adjunct Assoc Prof)
Professors: S. Azarm, B. Balachandran, D. Barker, A. Baz, P. Bernard, A. Christou, A. Dasgupta, J. Duncan, A. Gupta, B. Han, M. Modarres, A. Mosleh, C. Mote (Pres UMCP), M. Ohadi, M. Pecht, U. Piomelli (Assoc Chair), R. Radermacher, M. Zachariah (Affiliate Prof)
Assistant Professors: M. Cukier, T. Li, S. Solares, B. Yang, M. Yu (Aff Asst Prof)
Lecturers: H. Haslach (Senior Lecturer), C. Thamire (Senior Lecturer)
Adjunct Associate Professors: G. Schultz

The Major

The mechanical engineering major prepares students for the challenges of today and the future. The curriculum is one of the most up-to-date, forward-looking programs in the country. Students become involved with real-world engineering projects early on through extensive interaction with engineers from industry. This interaction continues throughout the curriculum. Coursework is fully integrated to provide a seamless undergraduate experience. Graduates possess the skills and knowledge base necessary for success in today’s marketplace, and the education necessary to adapt and succeed as technology continues to change.

The mechanical engineer of today faces a more extensive range of critical problems than ever before. Graduates be skilled not only in the traditional fundamentals of mechanical engineering such as solid mechanics, fluid mechanics, thermodynamics, heat transfer, materials engineering, electronic instrumentation and measurements, controls and design, but also in new/emerging areas such as mechatronics, smart structures, electronic packaging, communication, information systems, total quality management, reliability and electromechanical systems. Most topics require extensive use of modern computing hardware and software. Students are taught to make use of this capability and to make sound engineering judgments while analyzing seemingly unmanageable amounts of information. Attributes such as teamwork, ethics, social awareness, and leadership are emphasized in many courses.

Electives taken during the senior year prepare graduates to choose from a number of career paths, or to select a broad-based group of electives. All students work on projects throughout their program, many of which teach the advantages of teamwork and the skills required for a team to succeed. Individual projects provide the opportunity for sometimes far-out creative thinking. In all cases, students work closely with individual faculty members who serve as teachers, advisors, and mentors. Many undergraduate students have the opportunity to serve as Research Fellows and/or Teaching Fellows in the department.

Program Objectives

1. The program will prepare students for successful engineering careers.
2. Students will learn the fundamentals of mathematics, physical sciences, and engineering sciences and demonstrate the applications of this knowledge to Mechanical Engineering.

3. Students will learn through course sequences focused on specific, relevant mechanical engineering careers.

4. The program will provide students with practical design experiences through partnerships with industry.

5. The program will continue to raise the expectations of all constituencies, to attract a wide variety of excellent students, and to be a nationally recognized engineering program.

**Program Learning Outcomes**

a. ability to apply knowledge of math, engineering, and science  
b. ability to analyze and interpret data  
c. ability to design and conduct experiments  
d. ability to design system, component or process to meet needs  
e. ability to function on multi-disciplinary teams  
f. ability to identify, formulate, and solve engineering problems  
g. understanding of professional and ethical responsibility  
h. ability to communicate effectively  
i. broad education  
j. recognition of need and ability to engage in life-long learning  
k. knowledge of contemporary issues  
l. ability to use techniques, skills, and tools in engineering practice

**Admission to the Major**

Admission requirements are identical to those set by the Clark School of Engineering. Please consult chapter 1.

**Requirements for the Major**

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Credits</th>
<th>Second Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH140 Calculus I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MATH141 Calculus II</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CHEM135 General Chemistry for Engineers</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS161 General Physics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENGL101 Introduction to Writing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENES100 Introduction to Engineering Design</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENES102 Statics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CORE CORE Requirements</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>13</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Credits</th>
<th>Second Sem</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sample Elective Topics
Air Pollution & Waste Technology
Bio-Fluids
Bio-Inspired Robotics
Computer-Aided Design & Manufacturing
Packaging of Electronic Systems
Energy Conversion
Engineering Management

*At least three of the four technical electives must be design.
Environmental Engineering
Flexible Macro-electronics
Automotive Design
Robotics
Manufacturing
Medical Robotics
Fiber Optics
Micro-Electro-Mechanical Systems

Advising

All mechanical engineering students are required to meet with an advisor during registration. Contact the Undergraduate Advising Office, 2188 Engineering Classroom Building.

Co-op Programs

Participation in the Cooperative Education Program is encouraged. See chapter 1 for details.

Honors Program

The Honors Program is administered through the Clark School of Engineering. Individual honors and awards are presented based on academic excellence and extracurricular activities.

Student Societies and Professional Organizations

Student chapters of professional societies include the American Society of Mechanical Engineers, the Society of Automotive Engineers, the Society of Manufacturing Engineers, and the American Society of Heating, Refrigeration and Air Conditioning Engineers. The mechanical engineering honor society is Pi Tau Sigma. Information regarding these societies may be obtained at 2188 Engineering Classroom Building.

Scholarships and Financial Assistance

A very limited amount of financial aid is available. Information may be obtained in the Undergraduate Advising Office.
Meteorology

See Atmospheric and Oceanic Sciences elsewhere in Chapter 7.
Undergraduate Catalog 2007-2008

Departments, Majors, and Programs

Microbiology

Microbiology

Specialization courses in microbiology are offered by the Departments of Biological Sciences and Cell Biology and Molecular Genetics in the College of Chemical and Life Sciences.

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Program Objectives

The objectives of the School of Music are (1) to provide professional musical training based on a foundation in the liberal arts; (2) to help the general student develop sound critical judgment and discriminating taste in the performance and literature of music; (3) to prepare the student for graduate work in the field; and (4) to prepare the student to teach music in the public schools.

Academic Programs and Departmental Facilities

With the above objectives in mind, the School of Music offers the following three bachelor degrees: (a) the Bachelor of Music, with majors in theory, composition, and music performance, (b) the Bachelor of Arts, with a major in music and (c) Bachelor of Music Education in conjunction with and certification from the College of Education.

The UM School of Music is located in the Clarice Smith Performing Arts Center, a 318,000 square foot campus facility dedicated to Music, Theatre and Dance. Completed in 2001, the Center includes six state-of-the-art performance venues, the Michelle Smith Performing Arts Library, and specialized classroom and rehearsal spaces, all under one roof.

Admission to the Major

Admission to all undergraduate music major degree programs (B.M., B.A., and B.M.E.) is based on a required performance audition before a faculty committee. Audition dates and requirements are available at www.music.umd.edu.

Placement in Courses
Required music courses and private lessons are open to music majors who have completed the specified prerequisites, or their equivalents. Lessons are also available for qualified non-music majors, if teacher, time and facilities permit. All ensembles in the School of Music are open by audition to any student.

Requirements for the Major

Bachelor of Music Degree

Designed for qualified students with extensive pre-college training and potential for successful careers in professional music. B.M. degree programs are offered in the following: Piano, Voice, Violin, Viola, Cello, Bass, Flute, Oboe, Clarinet, Bassoon, Saxophone, Horn, Trumpet, Trombone, Tuba, Euphonium, Percussion, Harp, Composition, and Theory.

The College of Arts and Humanities requirements are waived for students majoring in B.M. Degree programs.

Bachelor of Music Requirements:

In addition to CORE courses and music courses specific to each instrument or program listed above, B.M. students generally complete the following:

- 8 semesters of private lessons (Senior Recital in final semester)
- 8 semesters of large ensemble participation
- 8 semesters of small ensemble participation
- 4 semesters of music theory
- 3 semesters of music history
- 2 semesters of class piano (except piano majors)
- 1 semester of form and analysis
- 1 semester of conducting
- 1 semester of music literature
- 1 semester of music pedagogy
- 6 credits of music electives

The B.M. programs vary according to instrument or emphasis. Please visit www.music.umd.edu for specific requirements.

The Bachelor of Arts Degree

Designed for qualified students whose interests include a broader liberal arts experience. The College of Arts and Humanities requirement of 45 upper level credits and a foreign language to the intermediate level apply to all B.A. students. B.A. degree programs are offered in the following: Piano, Voice, Violin, Viola, Cello, Bass, Flute, Oboe, Clarinet, Bassoon, Saxophone, Horn, Trumpet, Trombone, Tuba, Euphonium, Percussion, Harp and Jazz Studies.

Bachelor of Arts in Music Requirements:

In addition to CORE courses and music courses specific to each instrument or program listed above, B.A. students generally complete the following:

- 5 semesters of private lessons (Senior Recital in final semester)
- 5 semesters of ensemble participation
- 4 semesters of music theory
- 3 semesters of music history
- 2 semesters of class piano (except piano majors)
- 1 semester of form and analysis
- 6 credits of music electives
The B.A. programs vary according to instrument or emphasis. Contact the School of Music for specific requirements.

**The Bachelor of Music Education**

Designed for qualified students preparing for careers in K-12 teaching of music, the Bachelor of Music Education (BME) offered by the College of Arts and Humanities carries with it a teaching certification from the College of Education. BME degrees are offered with concentrations in either Instrumental Music Education or Choral-General Music Education. The requirements for a BME are similar to the BM program plus approximately 48 credits in music education. Contact the School of Music for specific requirements.

In addition to CORE requirements and the BM requirements above, Music Education students generally complete the following (for a total of 134-140 credits):

- 26 credits of MUED (class instruments and field experience)
- 6 credits of EDHD (Human Development)
- 3 credits of EDPL (Policy and Leadership)
- 3 credits of EDCI 463 (Curriculum and Instruction)
- 4 - 6 credits MUED 484 (Elementary Student Teaching)
- 4 - 6 credits MUED 494 (Secondary Student Teaching)

**Requirements for the Minor**

**Music Performance Minor**

Eighteen credit hours consisting of the following:

- Four semesters of applied lessons (MUSP 302, 303, 402, 403)
- Four semesters of ensemble (chosen from MUSC 129, 229, 329)
- MUSC 130 Survey of Music Literature
- MUSC 140 Fundamentals of Music

Admission to the minor in music performance is based on a required performance audition before a faculty committee. Audition dates and requirements are available from the School of Music office.

Students who fulfill Minor requirements will receive a Minor on the official transcript. Please contact the School of Music Office for more information.

**Advising**

Departmental advising is mandatory for all music majors every semester. Please visit [www.music.umd.edu](http://www.music.umd.edu) to find your appropriate advisor.

**Student Societies and Professional Organizations**

Sigma Alpha Iota International Music Fraternity
Kappa Kappa Psi National Honorary Band Fraternity
Tau Beta Sigma National Honorary Band Sorority
The National Association for Music Education (MENC)

**Scholarships and Financial Assistance**

The School of Music offers merit-based scholarships upon a student’s acceptance into the program, based on the audition.

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Natural Resources Management (NRMT)

College of Agriculture and Natural Resources
1457 Animal Sciences Building, 301-405-1193
www.nrmt.umd.edu
kmonahan@umd.edu
Chair: F. Coale
Professors: F. Coale, R. Hill, B. James, R. Miller, M. Rabenhorst, D. Ross, T. Simpson, R. Weil, R. Weismiller, F. Wheaton
Associate Professors: A. Baldwin, G. Felton, P. Kangas, B. Momen
Assistant Professors: J. Becker, J. McGrath, B. Needelman, D. Tilley
Lecturers: P. Tamboli
Adjunct Associate Professors: L. Adams, D. Fisher

Program Objectives

The Natural Resources Management program, within the Department of Environmental Science and Technology, provides three majors for students to focus their undergraduate study. The majors are designed to allow students to customize their degree around their strongest interest. Each curriculum consists of: 1) a common core of required courses, 2) additional required courses per each option area, and 3) 20 credits of restricted electives. The common core and additional option requirements provide the student with the breadth necessary for dealing with environmental issues, while the electives allow the student to focus on the appropriate major specialization. The elective credits are divided evenly between science and management courses. The student chooses these electives in consultation with their academic advisor from an extensive list of approved courses.

The goal of the Natural Resources Management Program is to teach students concepts dealing with the sound use and management of natural resources. In the program, the role of natural resources in economic development is balanced with concern for society and the environment.

Land and Water Resources Management

This concentration provides students with the knowledge and skills they need to work in such positions as Hydrologists, Environmental Consultants, Wetland Ecologists, Waste Managers, and Environmental Planners.

Plant and Wildlife Resources Management

This concentration provides students with the knowledge and skills they need to work in such positions as Wildlife Biologists, Nursery Managers, Fisheries Biologists, and Naturalists.

Environmental Education and Park Management

This concentration provides students with the knowledge and skills they need to work in such positions as Naturalists, Park Rangers, Park Superintendents, Environmental Educators, and Recreational Guides.

Requirements for the Major
Common Core of Requirements for all Natural Resources Management Majors

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course and Description</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>AREC240 Introduction to Economics and the Environment*</td>
</tr>
<tr>
<td>3</td>
<td>AREC332 Introduction to Natural Resources Policy</td>
</tr>
<tr>
<td>3</td>
<td>BIOM301 Introduction to Biometrics</td>
</tr>
<tr>
<td>4</td>
<td>BSCI106 Principles of Biology II</td>
</tr>
<tr>
<td>3</td>
<td>CMSC102 Introduction to Information Technology</td>
</tr>
<tr>
<td>3</td>
<td>GEOG201 Geography of Environmental Systems and</td>
</tr>
<tr>
<td>1</td>
<td>GEOG211 Geography of Environmental Systems Laboratory*, OR</td>
</tr>
<tr>
<td>3</td>
<td>GEOL100 Physical Geology AND</td>
</tr>
<tr>
<td>1</td>
<td>GEOL110 Physical Geology Laboratory*</td>
</tr>
<tr>
<td>3</td>
<td>GVPT100 Principles of Government and Politics*</td>
</tr>
<tr>
<td>3</td>
<td>GVPT273 Introduction to Environmental Politics, OR</td>
</tr>
<tr>
<td>3</td>
<td>GVPT306 Global Ecopolitics</td>
</tr>
<tr>
<td>3</td>
<td>MATH113 College Algebra with Applications*, OR</td>
</tr>
<tr>
<td>3</td>
<td>MATH115 Precalculus*</td>
</tr>
<tr>
<td>3</td>
<td>NRMT389 Internship</td>
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<td>4</td>
<td>NRMT470 Natural Resources Management</td>
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<td>40</td>
<td>Total University CORE Program Requirements*</td>
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Additional Requirements for Option Area A: Land and Water Resources Management

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course and Description</th>
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<tbody>
<tr>
<td>4</td>
<td>BSCI105 Principles of Biology I</td>
</tr>
<tr>
<td>4</td>
<td>BSCI223 General Microbiology*</td>
</tr>
<tr>
<td>5</td>
<td>BSCI460/461 Plant Ecology (3) and Plant Ecology Laboratory (2), OR</td>
</tr>
<tr>
<td>4</td>
<td>BSCI361 Principles of Ecology</td>
</tr>
<tr>
<td>4</td>
<td>CHEM131/132 General Chemistry</td>
</tr>
<tr>
<td>4</td>
<td>CHEM231/232 Organic Chemistry I, OR</td>
</tr>
<tr>
<td>3</td>
<td>CHEM104 Fundamentals of Organic and Biochemistry</td>
</tr>
<tr>
<td>4</td>
<td>GEOG340 Geomorphology, OR</td>
</tr>
<tr>
<td>4</td>
<td>GEOL340 Geomorphology</td>
</tr>
<tr>
<td>4</td>
<td>MATH140 Calculus I*, OR</td>
</tr>
<tr>
<td>3</td>
<td>MATH220 Elementary Calculus I*</td>
</tr>
<tr>
<td>4</td>
<td>NRSC200 Fundamentals of Soil Science*</td>
</tr>
<tr>
<td>4</td>
<td>PHYS117 Introduction to Physics*, OR</td>
</tr>
<tr>
<td>4</td>
<td>PHYS121 Fundamentals of Physics I</td>
</tr>
<tr>
<td>3</td>
<td>SOCY305 Scarcity and Modern Society</td>
</tr>
<tr>
<td>10</td>
<td>RESTRICTED ELECTIVES - Chosen in Consultation with an Advisor</td>
</tr>
<tr>
<td></td>
<td>Science Area</td>
</tr>
<tr>
<td></td>
<td>Management Area</td>
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</tbody>
</table>

Additional Requirements for Option Area B: Plant and Wildlife Resources Management

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course and Description</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>BSCI105 Principles of Biology I</td>
</tr>
<tr>
<td>4</td>
<td>BSCI223 General Microbiology*</td>
</tr>
<tr>
<td>5</td>
<td>BSCI460/461 Plant Ecology (3) and Plant Ecology Laboratory (2), OR</td>
</tr>
<tr>
<td>4</td>
<td>BSCI361 Principles of Ecology</td>
</tr>
<tr>
<td>4</td>
<td>CHEM131/132 General Chemistry</td>
</tr>
<tr>
<td>4</td>
<td>CHEM231/232 Organic Chemistry I, OR</td>
</tr>
<tr>
<td>4</td>
<td>CHEM104 Fundamentals of Organic and Biochemistry</td>
</tr>
<tr>
<td>3</td>
<td>GEOG340 Geomorphology, OR</td>
</tr>
<tr>
<td>4</td>
<td>GEOL340 Geomorphology</td>
</tr>
</tbody>
</table>
MATH140  Calculus I*, OR  4
MATH220  Elementary Calculus I*  3
NRSC200  Fundamentals of Soil Science*  4
PHYS117  Introduction to Physics*, OR  4
PHYS121  Fundamentals of Physics I  4
SOCY305  Scarcity and Modern Society  3

RESTRICTED ELECTIVES - Chosen in Consultation with an Advisor
Science Area  10
Management Area  10

Additional Requirements for Option Area C:
Environmental Education and Park Management

ANTH260  Introduction to Sociocultural Anthropology and Linguistics*  3
BMGT110  Introduction to Business and Management  3
BMGT360  Human Resources Management*  3
BSCI460/461  Plant Ecology (3) and Plant Ecology Laboratory (2)  5
COMM107  Oral Communication: Principles and Practices  3
EDCI473  Environmental Education  3
NRMT460  Principles of Wildlife Management  3
NRSC105  Soil and Environmental Quality*  3
PLSC100  Introduction to Horticulture  4

RESTRICTED ELECTIVES - Chosen in Consultation with an Advisor
Science Area  10
Management and Education Area  10

*May satisfy college requirements and/or a CORE requirement.

Advising

Advising is mandatory. Please contact Kimberly Monahan at 301-405-1193 or kmonahan@umd.edu for further information.

Student Societies and Professional Organizations

Students may join the Natural Resources Management Society. Further information is available from the Natural Resources Management program office at 1457 Animal Sciences Building, by going to www.nrmt.umd.edu, or by contacting Kimberly Monahan at kmonahan@umd.edu.

Scholarships and Financial Assistance

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

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Natural Resource Sciences (NRSC)

Horticulture and Crop Production, Landscape Management, Plant Science, Turf and Golf Course Management, and Urban Forestry Areas of Concentration formerly under the NRSC major are now listed under the Plant Sciences major.

Conservation of Soil, Water, and Environment Concentration and Soil Science Minor formerly under the NRSC major are now part of the Environmental Science and Technology (ENST) department. Please see Environmental Science and Technology for soils related major, minor, and coursework.
Nutrition and Food Science (NFSC)

**College of Agriculture and Natural Resources**
0112 Skinner Building, 301-405-4520
www.nfsc.umd.edu

**Faculty**
Chair: M. Parish
Director: N. Brenowitz (Undergraduate Dietetics Program), P. McShane (Dietetic Internship), M. Mehta-Gupta (Ext Assoc)
Professors: G. Bean, T. Castonguay, D. Lei, J. Meng, M. Parish (Chair), C. Wei (Dean of AGNR)
Associate Professors: R. Jackson, M. Kantor, Y. Lo, N. Sahyoun, L. Yu
Assistant Professors: B. Magnuson
Lecturers: N. Brenowitz (Dietetics Program Director)
Professors Emeriti: R. Ahrens, P. Moser-Veillon, D. Schlimme, R. Wiley

**Admission to the Major**

The majors in Nutrition and Food Science are not limited enrollment programs. Students may either declare a major in the department at the time of application or transfer into the majors at any time thereafter. If interested in transferring into a major in NFSC, please contact the departmental office and ask to speak with an advisor.

**Requirements for the Major**

The department offers three areas of emphasis: dietetics, food science, and nutritional science. Each program provides for competencies in several areas of work; however, each option is designed specifically for certain professional careers.

**The Dietetics major** develops an understanding and competency in food, nutrition, dietetics management, clinical nutritional care, nutrition education, and community nutrition. The dietetics program is approved by the Commission on Accreditation for Dietetics Education, and qualifies students, after completion of a post-baccalaureate internship, to sit for the national exam to become a registered dietitian.

**The Food Science major** is concerned with the application of the fundamental principles of the physical, biological, and behavioral sciences and engineering to understand the complex and heterogeneous materials recognized as food. The food science program is approved by the Institute of Food Technologists and prepares students for careers in food industry and food safety.

**The Nutritional Science major** emphasizes the physical and biological sciences in relation to nutrition and the development of laboratory skills in these areas. Students in this major frequently elect to go on to graduate or medical school.

Grades. All students are required to earn a grade of C or better in courses applied toward satisfaction of the major. This includes all required courses with a prefix of NFSC, as well as certain required courses in supporting fields. A list of these courses for each program may be obtained from the department office.

**Advising**

Department advising is mandatory each semester. When planning a course of study, students must consult the Undergraduate Catalog for the year they entered the program and also see an appropriate departmental advisor. Information on advising may be obtained by calling the
Student Societies and Professional Organizations

The NFSC Department has two active undergraduate clubs: the Food and Nutrition (FAN) club and the Food Science club, which sponsor outreach activities and speakers on career-related topics, and participate in a variety of social activities. Call 301-405-4520 for more information.
Operations Management

For information, see Decision and Information Technologies elsewhere in Chapter 7.

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Undergraduate Catalog 2007-2008

Departments, Majors, and Programs

Other For-Credit Programs

Air Force Reserve Officer Training Corps Program (AFROTC)
Army Reserve Officer Training Corps Program (ROTC)
College Park Scholars Program (CPSP)
Gemstone
University Honors Program
Study Abroad Programs

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Air Force Reserve Officer Training Corps Program (AFROTC)

2126 Cole Student Activities Building, 301-314-3242
www.afrotc.umd.edu
Director: Colonel Ernie Haendschke

The Air Force Reserve Officer Training Corps (AFROTC) provides students the opportunity to earn a commission as a second lieutenant in the United States Air Force while completing their undergraduate degree. AFROTC scholarship programs provide scholarships to high school and in-college students on a competitive basis.

For more information, see Office of Undergraduate Studies section in Chapter 6.

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Departments, Majors, and Programs

Other For-Credit Programs
  Air Force Reserve Officer Training Corps Program (AFROTC)
  Army Reserve Officer Training Corps Program (ROTC)
  College Park Scholars Program (CPSP)
  Gemstone
  University Honors Program
  Study Abroad Programs

Army Reserve Officer Training Corps Program (ROTC)

1150 Cole Student Activities Building, 301-314-9238
www.armyrotc.umd.edu

The Army Reserve Officer Training Corps offers students the opportunity to earn a commission as a Second Lieutenant in the United States Army (Active, Reserve, or National Guard) while completing their undergraduate degree.

For more information, see Officer of Undergraduate Studies section in Chapter 6.

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College Park Scholars Program (CPSP)

1125 Cumberland Hall, 301-314-CPSP (2777)
www.scholars.umd.edu

College Park Scholars is an innovative, two-year living/learning program for academically talented students. Admission is by invitation. Upon admission to the program, Scholars choose one of the 12 multidisciplinary academic programs as a focus, and have an opportunity to live together with other students in that program in specially designated College Park Scholars' residence halls.

For more information, see Office of Undergraduate Studies section in Chapter 6.
Gemstone

0102 Ellicott Hall, 301-405-8047
www.gemstone.umd.edu

Director: Dr. James Wallace

Gemstone is a four-year program whose students come from many different majors and with a variety of interests. They have a unique opportunity to explore the interconnections between Science, Technology, and Society in a program involving special GEMS courses, but most importantly as members of undergraduate research teams. Under the guidance of faculty mentors, Gemstone students carry out interdisciplinary research on problems that involve science and/or technology. Rather than merely considering these problems from a technical point of view, Gemstone research projects often take into consideration history, ethics, politics, sociology, psychology and business among other perspectives. Some of the topics that recent Gemstone students have worked on include: removing arsenic from drinking water in Southeast Asian countries, developing an interactive educational video game for fourth and fifth graders, using puppets to teach struggling students to read, assessing the health of wetlands sites in Maryland using an analysis tool the team developed, and investigating the impact of separating students into different academic-level tracks.

Students in the Gemstone Program select their research topics during their freshman year through a discussion-based process led by upper class Gemstone students. Team research begins in earnest at the beginning of the sophomore year and continues into the senior year when each team writes a team thesis and then defends it in front of a distinguished panel made up of individuals from academia, industry, and government. Students who successfully complete the Gemstone Program receive the Gemstone Citation, which appears on their transcript.

What Gemstone provides participants is the experience of learning to do original research with a team of high achieving students under the supervision of a faculty mentor. It also makes opportunities available for students to develop leadership and citizenship qualities. Less tangible but of equal importance, the Program exists as a living-learning environment in which its students are supported by the Gemstone staff, mentors and their fellow students in both their academic endeavors and some social activities.
University Honors Program

Anne Arundel Hall, 301-405-6771  
www.honors.umd.edu  
Director: Dr. Barbara L. Thorne

The University Honors Program offers special educational opportunities and resources to students with exceptional academic talents. Admission is by invitation. Honors seminars offer small class size (capped at 20 students) academic experiences characterized by active participation, intensive writing, and outstanding faculty who encourage critical thinking and innovation.

For more information, see Office of Undergraduate Studies in Chapter 6.
Study Abroad Programs

1101 Holzapfel Hall, 301-314-7746
www.umd.edu/studyabroad
Associate Director: Michael Ulrich

The goal of the Study Abroad Office is to enable students to incorporate a summer, winter, semester, or year abroad into their degree program at Maryland. Study abroad increases awareness of other cultures and languages, while providing a comparative international perspective. Many students find study abroad to be essential for their major or career plans. Others view it as part of their liberal arts education.

Advising and Information

In addition to coordinating the University of Maryland’s study abroad programs, the Study Abroad Office staff offers advising to all students interested in studying abroad. The office’s resource library provides information on programs offered by other universities. The staff also assists students in obtaining credit for their experience abroad. Dependent on departmental approval, students may use study abroad to enrich their programs and to fulfill CORE requirements and electives.

Maryland Study Abroad During the Academic Year

Semester/Year Programs

Study In London: Students take courses through the University of Maryland and the London Metropolitan University. Classes are offered in the humanities, business, social sciences, and sciences. Students live in dorms or in flats with other program participants. Fall or spring semester or year.

Study in Nice, France: Students take courses through the University of Maryland and the University of Nice. Classes are offered in French language, civilization, and literature. Students live in homestays or apartments. Fall or spring semester or year.

Study in Rome, Italy: Students take courses in English at the American University of Rome (AUR). AUR offers instruction in the liberal arts, business, Italian language and culture, and international studies. The program is administered by Towson University. Fall or spring semester.

Study in Australia: Students take courses at Macquarie University, approximately 20 minutes from Sydney. Classes are offered in most disciplines. Fall or spring semester or year.

Denmark's International Study Program: Students take courses through DIS in Copenhagen. The program offers courses in English, focusing on humanities and social sciences, international business, marine biology, environmental studies, early multi-cultural education, and medical practice and policy. Fall or spring semester or year.

Study in Leiden, The Netherlands: Students study at Leiden University. Many courses are offered in English in disciplines such as Dutch language and culture, law and justice, archaeology, Asian studies, biomedical studies, English language and literature, political science and psychology. Fall or spring semester or year.

Exchange Programs
The Study Abroad Office administers reciprocal exchanges with specific universities in Argentina, Austria, Brazil, England, Germany, Hong Kong, Japan, Korea, and Sweden. Unlike students on many semester programs, exchange students are directly enrolled as full-time students at the host institution of their choice. Exchange students are expected to be independent and interested in a true immersion experience during their semester abroad. Exchanges are often related to specific academic departments and usually require a language background. All exchanges require at least a 3.0 grade point average. Many exchanges carry full-tuition scholarships.

Exchanges are available with the following universities: In Argentina, a complete curriculum is offered at the Universidad de San Andres. In Austria, students attend the University of Vienna. In Britain, students can study at: University of Kent for government and politics majors; Kingston University for chemistry majors; University of Sheffield for English and American Studies majors; University of Lancaster for math and other majors; University of Bristol for philosophy majors; University of Surrey for sociology majors; University of Keele for criminology and other majors; and University of Liverpool for history majors. In Brazil, exchange opportunities are available at Pontificia Universidade Catolica or Universidade Federal Fluminense in Rio de Janeiro and at the Universidade Sao Paolo. In Germany, exchanges are available with the University of Tubingen and the Gesamthochschule Kassel. In Hong Kong, students can study at the University of Hong Kong. In Japan, student may study intensive Japanese language at Keio University or Kobe University; language and culture at Rikkyo University; or humanities, social sciences, sciences and engineering at Hiroshima University or Chiba University. In Korea, students can attend Yonsei University or Ewha Women University. In Sweden, students can study at Uppsala University.

**Winter Term and Summer Programs**

New and exciting programs, tailored to the Winter Term and Summer Session calendars, are offered every year. See the Study Abroad website ( [www.umd.edu/studyabroad](http://www.umd.edu/studyabroad) ) for planned offerings.

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PHILOSOPHY (PHIL)

College of Arts and Humanities
1125A Skinner Building, 301-405-5689
www.philosophy.umd.edu

Chair: P. Carruthers (Professor)
Professors: J. Bub (Distinguished Scholar Teacher), C. Cherniak, L. Darden (Distinguished Scholar Teacher), P. Greenspan, J. Horyt, J. Levinson (Distinguished University Professor), C. Morris, P. Pietroski (Distinguished Scholar Teacher), G. Rey, L. Svenonius
Associate Professors: M. Frisch, S. Kerstein, C. Manekin, M. Morreau, S. Odell, A. Stairs
Assistant Professors: E. Eaker, D. Moller, R. Singpurwalla (Asst Prof)
Affiliate Professors: R. Fullinwider, A. Levine, X. Li, M. Sagoff, J. Segal, R. Wachbroit, D. Wasserman
Adjunct Professors: J. Berkovitz, P. Levine, J. Mattingly, R. Rynasiewicz, M. Silberstein
Professors Emeriti: J. Brown, R. Martin, A. Pasch (Prof Emeritus), F. Suppe (Prof Emeritus)

The Major

The study of philosophy develops students' reasoning and expository skills and increases their understanding of the foundations of human knowledge and value. The department views philosophy as an activity rather than a body of doctrine and students can expect to receive training in clear thinking, inventive synthesis, and precise expression. For some, this will serve as preparation for graduate studies in philosophy. However, philosophical skills are useful in professions such as law, medicine, government, business management, and in any field that demands intellectual rigor. The department offers a wide range of courses, including several that deal with the philosophy of various disciplines outside philosophy itself.

Requirements for the Major

A total of at least twelve courses in Philosophy* 36 credits

- At least two courses at the 400 level
- at least four courses at the 300 level or above
- at least one course in logic at any level
- at least two courses numbered 200 or above in the history of pre-twentieth-century philosophy
- at least two courses numbered 200 or above in value theory (including aesthetics and political philosophy as well as ethics)
- at least two courses numbered 200 or above in metaphysics or epistemology (including philosophy of science, philosophy of mind, and philosophy of religion, as well as metaphysics and theory of knowledge)
- A grade of 'C' or better for all courses counted toward the major

* not counting Internship course (PHIL 386)

Supporting Courses 15 credits

Fifteen hours in a supporting area; the courses do not all have to be in the same department, but they should reflect a coherent program of study. The supporting area must be chosen in consultation with a departmental advisor. For further information, students should consult the undergraduate handbook on the philosophy department's website.
**Requirements for the Minor**

1. A total of 18 hours (six courses) in philosophy, not counting PHIL 386.

2. At least three courses numbered 300 or above; at least one course numbered 200 or above in the history of pre-twentieth-century philosophy; at least one course numbered 200 or above in value theory (including aesthetics and political philosophy as well as ethics); at least one course numbered 200 or above in metaphysics or epistemology (including philosophy of science, mind, and philosophy of religion, as well as metaphysics and theory of knowledge).

3. A grade of C or higher in each course counted toward the minor requirement.

**Advising**

1. First semester students
2. Students between 60-75 credits
3. Students between 90-105 credits

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PHYSICAL SCIENCES PROGRAM (PSCI)

College of Computer, Mathematical and Physical Sciences
1120 Physics Building, 301-405-5979
www.physics.umd.edu/psci
phys-ugradinfo@physics.umd.edu
Chair: T. Einstein (Prof)

The Major

The role of the Physical Sciences Program (PSCI) is to develop skills in the areas of analytic thinking, problem solving, understanding systems, and multidisciplinary perspectives. In a world of increasing technical complexity, knowledge of the physical sciences helps individuals to evaluate scientific claims and to make informed decisions about industrial and medical technology, environmental concerns, intellectual property, etc. The Program helps prepare students for a variety of careers requiring a broad scientific background, including meteorology, earth sciences, scientific computation, science writing/journalism, patent law, military/industrial leadership, technical sales, and public policy.

The Physical Sciences Program consists of a basic set of courses in physics, chemistry and mathematics, followed by a variety of courses chosen from these and related disciplines: astronomy, geology, meteorology, computer science, and the engineering disciplines. Emphasis is placed on a broad program as contrasted with a specialized one.

Students are advised by members of the Physical Sciences Committee. This committee is composed of faculty members from each of the represented disciplines. The selection of a primary advisor depends upon the interest of the students. Usually the student will choose to work with one of the committee members representing the discipline the student has selected as the primary area of concentration to satisfy the distributive requirements of the program. Two secondary area advisors are also required.

Admission to the Major

The Physical Sciences Program is not a Limited Enrollment Program. However, students must submit a program application and have it approved by the Physical Sciences Program Committee in order to graduate. The Committee is made up of the following faculty and staff:

Astronomy: Deming
Chemistry: Montague-Smith
Computer Science: Ozga
Geology: Merck
Engineering: Salamanca-Riba
Mathematics: Chan
Meteorology: Hudson
Physics: Einstein
Advisor: Gleason

Advising

Advising for undergraduates is available throughout the year in Room 1120 PHY. Students should also consult with the committee members for their areas of concentration. For early registration, advising is mandatory; students should check Testudo for their early registration date and should sign up for an appointment in Room 1120 PHY. Students who have been away more than two years may find that due to curriculum changes the courses they have taken may no longer be adequate preparation for the courses required to complete the major. Students in
this situation must meet with the Program Advisor to make appropriate plans.

**Honors Program**

The Physical Sciences Honors Program offers students the opportunity for research and independent study, and will lead to a BS degree with Honors or High Honors. The requirements are:

a) Overall grade point average of 3.0 or better.

b) Physical Sciences courses grade point average of 3.2 or better.

c) An independent study course in the Physical Sciences Program - three credit minimum which may be distributed over two semesters (e.g. Astronomy 399 or 498, Chemistry 399, Computer Science 498, Geology 499, Mathematics 498, Meteorology 499 and Physics 399 or 499B).

d) An honors thesis summarizing independent research submitted to the Physical Sciences Committee.

e) An oral examination concerning thesis and related subjects. The thesis advisor and two other faculty members (at least one a member of the Physical Sciences Committee) will comprise the examining committee.

**Selection of College**

Students may elect to receive their degrees from either the College of Computer, Mathematical and Physical Sciences, the College of Agriculture and Natural Resources, or the College of Chemical and Life Sciences. College of CMPS students have no further requirements to fulfill beyond those stated here plus the General Education Requirements. Agriculture and Natural Resources and Life Sciences students must also satisfy their respective College requirements.

**Approval of Program Plans**

All students must submit a program plan outlining what courses they plan to take to complete their program. These should include both the core courses and the distributive 300-400 level courses of 24 credits beyond the core.

In preparing such a program plan, students should keep in mind that the Physical Sciences Committee will look for courses that will support the purpose or goals of the program. These plans should be submitted as early as possible, normally no later than the beginning of the junior year. This is important because it will provide students with sufficient time to plan an appropriate program. The program plans will be approved by the Physical Sciences Committee and filed in the Dean’s Office. Any changes to the plan must be approved in writing by the student’s advisor and the Chairperson.

Students planning to use any of the special topics, or special programs topics courses (including PHYS 318) as part of their Physical Sciences requirement must obtain written approval to do so. Many of these special topics courses are intended for non-science students and are not suitable for Physical Sciences majors.

In preparing a program plan, students should keep in mind that certain other courses are also not considered suitable for a Physical Sciences major. In particular, courses at lower levels than the core courses designed primarily for non-sciences students may be disallowed. Contact the Program Advisor for specific details.
Undergraduate Catalog 2007-2008

Departments, Majors, and Programs

Physical Education

See Kinesiology elsewhere in Chapter 7.

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PHYSICS (PHYS)

College of Computer, Mathematical and Physical Sciences
1120 Physics Building, 301-405-5979
www.physics.umd.edu

Faculty
Chair: A. Baden (Prof)
Associate Professors: A. Buonanno, W. Dorland, M. Fuhrer, W. Losert, D. Roberts (Assoc Chair), E. Seo
Assistant Professors: K. Abazajian, P. Bedaque, V. Galitski, M. Girvan, C. Hall, K. Hoffman, A. LaPorta, M. Ouyang, P. Shawhan, A. Upadhyaya
Lecturers: K. Restorff
Adjunct Assistant Professors: I. Spielman

The Major

The Physics Program includes a broad range of undergraduate courses designed to satisfy the needs of almost every student, from the advanced physics major to the person taking a single introductory physics course. In addition, there are various opportunities for personally-directed studies between student and professor, and for undergraduate research. For further information consult "Undergraduate Study in Physics" available from the department. Students majoring in Physics can follow either the Professional Physics area of concentration, the Meteorology Physics area of concentration, or the Education Physics area of concentration. A grade of C or better is required in all courses required for the major.

Requirements for the Major

Courses required for Physics Major:

<table>
<thead>
<tr>
<th>Courses required for Physics Major:</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower-level courses for all areas of concentration:</td>
<td></td>
</tr>
<tr>
<td>PHYS171  Introductory Physics: Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS174  Physics Laboratory Introduction</td>
<td>1</td>
</tr>
<tr>
<td>PHYS272  Introductory Physics: Fields</td>
<td>3</td>
</tr>
<tr>
<td>PHYS273  Introductory Physics: Waves</td>
<td>3</td>
</tr>
<tr>
<td>PHYS275  Experimental Physics I: Mechanics, Heat, and Fields</td>
<td>2</td>
</tr>
<tr>
<td>PHYS276  Experimental Physics II: Electricity and Magnetism</td>
<td>2</td>
</tr>
</tbody>
</table>
### Upper-level courses for Professional Physics area of concentration:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS374</td>
<td>Intermediate Theoretical Methods</td>
<td>4</td>
</tr>
<tr>
<td>PHYS375</td>
<td>Experimental Physics III: EM Waves, Optics, and Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS401</td>
<td>Quantum Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS402</td>
<td>Quantum Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS404</td>
<td>Introduction to Statistical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS405</td>
<td>Advanced Experiments</td>
<td>3</td>
</tr>
<tr>
<td>PHYS410</td>
<td>Classical Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS411</td>
<td>Intermediate Electricity and Magnetism</td>
<td>4</td>
</tr>
</tbody>
</table>

### Upper-level and supporting courses for Meteorology Physics area of concentration:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM135/136</td>
<td>Chemistry for Engineers/Lab</td>
<td>4</td>
</tr>
<tr>
<td>MATH462</td>
<td>Partial Differential Equations for Scientists and Engineers</td>
<td>3</td>
</tr>
<tr>
<td>AOSC431</td>
<td>Meteorology for Scientists and Engineers I</td>
<td>3</td>
</tr>
<tr>
<td>AOSC432</td>
<td>Meteorology for Scientists and Engineers II</td>
<td>3</td>
</tr>
<tr>
<td>AOSC434</td>
<td>Air Pollution</td>
<td>3</td>
</tr>
<tr>
<td>PHYS375</td>
<td>Experimental Physics III: Electromagnetic Waves, Optics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS401</td>
<td>Quantum Physics I *</td>
<td>4</td>
</tr>
<tr>
<td>PHYS402</td>
<td>Quantum Physics II *</td>
<td>4</td>
</tr>
<tr>
<td>PHYS404</td>
<td>Introduction to Statistical Thermodynamics</td>
<td>3</td>
</tr>
</tbody>
</table>

*The PHYS 401-402 sequence in the Meteorology Physics area of concentration may be replaced by two of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS405</td>
<td>Advanced Experiments</td>
<td>3</td>
</tr>
<tr>
<td>PHYS406</td>
<td>Optics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS410</td>
<td>Classical Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS411</td>
<td>Intermediate Electricity and Magnetism</td>
<td>4</td>
</tr>
<tr>
<td>PHYS420</td>
<td>Principles of Modern Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

### Upper-level and supporting courses for Education Physics area of concentration:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDPL301</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDHD413</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>EDHD426</td>
<td>Cognitive and Motivational Basis of Reading: Reading in Content Areas</td>
<td>3</td>
</tr>
<tr>
<td>EDCI463</td>
<td>Teaching Reading in Content Area II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS374</td>
<td>Intermediate Theoretical Methods</td>
<td>4</td>
</tr>
<tr>
<td>PHYS411</td>
<td>Intermediate Electricity and Magnetism</td>
<td>4</td>
</tr>
<tr>
<td>PHYS401</td>
<td>Quantum Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS375</td>
<td>Experimental Physics III: Electromagnetic Waves, Optics</td>
<td>3</td>
</tr>
</tbody>
</table>

In the Education Physics area of concentration: EDPL 301 may be replaced by EDPL 401 Educational Technology, Policy and Social Change (3). PHYS 401 may be replaced by PHYS 420- Principles of Modern Physics (3). PHYS 375 may be replaced by one additional non-seminar 400-level approved Physics course of 3-4 credits.

Students who are considering pursuing the Education Physics area of concentration are encouraged to enroll in EDCI 280-Introduction to Teaching, for a survey of education and teaching. The Education Physics area of concentration is designed to accommodate students obtaining a teaching certificate through the College of Education. However, completing all the courses in the Education
Physics area of concentration does not in itself satisfy all requirements for obtaining a teaching certificate. Students pursuing the Education Physics area of concentration who want to also obtain a teaching certificate in secondary education must first apply and be admitted to the Secondary Education Program in the College of Education and then complete additional courses in that program.

Students planning to double major (or seek a double degree) in Physics and Astronomy should note that this combination does not automatically satisfy CORE Advanced Studies. These students must complete CORE Advanced Studies by taking courses from departments other than Physics and Astronomy.

**Requirements for the Minor**

This minor provides a rigorous foundation in physics for students who choose not to complete the entire physics major. The minor begins with a set of two introductory courses (6 credits) in electromagnetic fields (PHYS 262 or PHYS 272) and waves (PHYS 263 or PHYS 273). As part of this introduction to Physics, the minor also requires a one-credit introductory physics laboratory (PHYS 174, PHYS 261, or PHYS 271) involving techniques of data gathering and analysis. To obtain a deeper understanding of physics, the minor requires three additional upper-level courses (3-4 credits each), which students can select from the list below.

- Other upper level Physics courses can be substituted only with approval from the Department's undergraduate director and the Faculty Minor Advisor.

- All courses must be completed with a grade of C or better to be counted towards the minor.

- No more than 7 credits in this minor can count toward major requirements. Students with more than 7 credits of overlap must substitute non-overlapping 300 or 400 level courses from the above list to reduce the overlap to no more than 7 credits.

- Physics majors and students majoring in Astronomy are not eligible to complete the Physics Minor due to the large number of overlapping course requirements.

### Credits

<table>
<thead>
<tr>
<th>Courses required for the minor</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One from:</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS174 Physics Laboratory Introduction</td>
<td>1</td>
</tr>
<tr>
<td>PHYS261 General Physics: Vibrations, Waves, Heat,</td>
<td>1</td>
</tr>
<tr>
<td>Electricity and Magnetism: Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS271 General Physics: Electrodynamics, Light,</td>
<td>1</td>
</tr>
<tr>
<td>Relativity and Modern Physics: Laboratory</td>
<td></td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS272 Introductory Physics: Fields</td>
<td>3</td>
</tr>
<tr>
<td>PHYS260 General Physics: Vibrations, Waves, Heat,</td>
<td>3</td>
</tr>
<tr>
<td>Electricity and Magnetism</td>
<td></td>
</tr>
<tr>
<td><strong>One from:</strong></td>
<td></td>
</tr>
<tr>
<td>PHYS273 Introductory Physics: Waves</td>
<td>3</td>
</tr>
<tr>
<td>PHYS270 General Physics: Electrodynamics, Light,</td>
<td>3</td>
</tr>
<tr>
<td>Relativity and Modern Physics</td>
<td></td>
</tr>
<tr>
<td><strong>Three from the following:</strong></td>
<td>9-12</td>
</tr>
<tr>
<td>PHYS374 Intermediate Theoretical Methods</td>
<td>4</td>
</tr>
<tr>
<td>PHYS375 Experimental Physics III: EM Waves, Optics</td>
<td>3</td>
</tr>
<tr>
<td>&amp; Modern Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS401 Quantum Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS402 Quantum Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHYS404 Introductory Statistical Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS410 Classical Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>PHYS411 Intermediate Electricity and Magnetism</td>
<td>4</td>
</tr>
<tr>
<td>PHYS465 Modern Optics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS474 Computational Physics</td>
<td>3</td>
</tr>
</tbody>
</table>
**Prerequisites**
MATH 140 (4 credits), MATH 141 (4 credits), MATH 241 (4 credits), MATH 240 (4 credits), MATH 246 (3 credits), and Physics 161 (or Physics 171) (3 credits) are prerequisites for some of the courses in this program.

**Contact**
Students interested in earning a minor in physics should contact the undergraduate advisor for the Physics Department:

1120F John S. Toll Physics Building; 301-405-5979  email: phys-ugradinfo@physics.umd.edu

*Note*: At the beginning of the semester in which graduation is intended, a student should make an appointment with the Physics Department's Undergraduate Advisor to fill out the appropriate paperwork.

**Advising**
Advising for undergraduates is available throughout the year in Room 1120 PHY. For early registration, advising is mandatory; students should check Testudo for their early registration date and should sign up for an appointment in Room 1120 PHY. Students who have been away more than two years may find that due to curriculum changes the courses they have taken may no longer be adequate preparation for the courses required to complete the major. Students in this situation must meet with the Departmental Advisor to make appropriate plans.

**Honors Program**
The Physics Honors Program offers to students of good ability and strong interest in physics a greater flexibility in their academic programs. To receive a citation of "with honors in physics" the student must meet certain GPA requirements and pass a comprehensive examination in his or her senior year. To receive a citation of "with high honors in physics" he or she must also complete and defend a senior thesis. For more information, students should consult the Physics Department's undergraduate advisor.

**Student Societies and Professional Organizations**
Society of Physics Students (SPS)

*Return to top*
Plant Sciences (PLSC)

College of Agriculture and Natural Resources
2102 Plant Sciences Building, 301-405-4355
www.plsia.umd.edu/
khunt@umd.edu
Chair: W. Kenworthy (Professor and Acting Chair)
Director: C. Walsh
Professors: S. Cohan, P. Dernoeden, W. Kenworthy, M. McIntosh, T. Ng, C. Walsh
Assistant Professors: M. Neel
Affiliate Professors: J. Kays
Affiliate Associate Professors: J. Fiola, R. Tjaden
Adjunct Professors: P. Cregan, A. Mucciardi
Adjunct Associate Professors: S. Christiansen, M. Tucker
Mulchi, C. Oliver, B. Quebedeaux, J. Shanks, T. Solomos, A. Thompson, L. Vough, R. Wiley

The Major

Plant Sciences combines basic science courses with applied technical classes to prepare students for the
many and varied careers in this growing field. Students seeking a Plant Sciences degree must complete
a series of requirements in one of the following Areas of Concentration: Horticulture and Crop
Production, Landscape Management, Plant Science, Turf and Golf Course Management, or Urban
Forestry.

- Horticulture and Crop Production prepares students for advisory and managerial positions in
  agronomic, greenhouse, nursery, orchard and vegetable crops. Students in this Area focus their
  studies on plant growth and development and plant protection.
- Landscape Management trains students for management positions in the landscape industry. The
  curriculum combines plant science, design and business management courses enabling graduates
  to meet the challenges of careers in the green industry.
- Plant Science is designed to prepare students for a research career. Whether students are
  interested in working in plant biotechnology, breeding, conservation, genomics, or plant
  protection, this area provides a strong foundation for postgraduate education.
- Turf and Golf Course Management provides the skills needed to succeed as a turfgrass
  professional, stressing an interdisciplinary approach to this career.
- Urban Forestry, a relatively new program and candidate for accreditation by the Society of
  American Foresters (SAF) exposes students to a wide range of skills needed for managing urban
  forests and seeking employment in the tree-care industry.

The Department of Plant Science and Landscape Architecture also offers two additional degrees: the
Bachelor of Science (B.S.) in Agricultural Sciences and Technology and the Bachelor of Landscape
Architecture (BLA). These programs are described elsewhere in this catalog under "Agricultural Sciences
and Technology" and "Landscape Architecture."

Courses offered by this department may be found under the following acronyms: PLSC and LARC.

Program Learning Outcomes

- Students will develop technical and knowledge-based skills in the required areas of study.
- Students will use technical and basic learned knowledge to collaborate, solve problems and then
Students shall develop effective communication skills and demonstrate the ability to present ideas with clarity to an appropriate audience.

Students will connect and build relationships with external groups in the appropriate fields of study.

Requirements for the Major

Requirements for all Areas of Concentration

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM131/132</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL101</td>
<td>Introduction to Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENGL393</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENST200</td>
<td>Fundamentals of Soil Science</td>
<td>4</td>
</tr>
<tr>
<td>MATH113</td>
<td>College Algebra with Applications, OR</td>
<td>3</td>
</tr>
<tr>
<td>MATH115</td>
<td>Precalculus</td>
<td></td>
</tr>
<tr>
<td>PLSC100</td>
<td>Introduction to Horticulture, OR</td>
<td></td>
</tr>
<tr>
<td>PLSC101</td>
<td>Introductory Crop Science</td>
<td>4</td>
</tr>
<tr>
<td>PLSC398</td>
<td>Senior Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

With the exception of ENGL101 and ENGL393, a grade of 'C' or better is required in the courses above.

Area B: Horticulture and Crop Production

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREC250</td>
<td>Elements of Agricultural and Resource Economics</td>
<td>3</td>
</tr>
<tr>
<td>AREC306</td>
<td>Farm Management</td>
<td>3</td>
</tr>
<tr>
<td>BSCI337</td>
<td>Biology of Insects</td>
<td>4</td>
</tr>
<tr>
<td>CHEM104</td>
<td>Fundamentals of Organic and Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>ENST411</td>
<td>Principles of Soil Fertility</td>
<td>3</td>
</tr>
<tr>
<td>PLSC201</td>
<td>Plant Structure and Function</td>
<td>4</td>
</tr>
<tr>
<td>PLSC202</td>
<td>Management of Horticultural Crops, OR</td>
<td>3</td>
</tr>
<tr>
<td>PLSC203</td>
<td>Plants, Genes and Biotechnology, OR</td>
<td></td>
</tr>
<tr>
<td>PLSC271</td>
<td>Plant Propagation</td>
<td></td>
</tr>
<tr>
<td>PLSC389</td>
<td>Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>PLSC400</td>
<td>Environmental Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PLSC420</td>
<td>Principles of Plant Pathology</td>
<td>4</td>
</tr>
<tr>
<td>PLSC453</td>
<td>Weed Science</td>
<td>3</td>
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</tbody>
</table>

Advanced Production Electives (Select four of the following)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSCI497</td>
<td>Insect Pests of Ornamentals and Turf</td>
<td>4</td>
</tr>
</tbody>
</table>
ENST4xx  Soils Courses (Minimum of two)  6-8
PLSC305  Introduction to Turf Management  3
PLSC432  Greenhouse Crop Production  3
PLSC433  Technology of Fruit and Vegetable Crop Production  4
PLSC452  Principles of Landscape Establishment and Maintenance  3
PLSC456  Nursery Crop Production  3
PLSC474  Physiology of Maturation and Storage of Horticultural Crops  3
PLSC4xx  Crops Courses (Minimum of two)  6-8

**Total CORE, PLSC and Horticulture and Crop Production Area**  104-108

**University Electives**  12-16

**Area C: Landscape Management Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AREC250</td>
<td>Elements of Agricultural &amp; Resource Economics, <strong>OR</strong></td>
<td>3/4</td>
</tr>
<tr>
<td>ECON200</td>
<td>Principles of Micro-Economics</td>
<td>3</td>
</tr>
<tr>
<td>BMGT220</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BMGT350</td>
<td>Marketing Principles and Organization</td>
<td>3</td>
</tr>
<tr>
<td>BSCI337</td>
<td>Biology of Insects</td>
<td>4</td>
</tr>
<tr>
<td>CHEM104</td>
<td>Fundamentals of Organic and Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>LARC140</td>
<td>Graphic Fundamentals Studio</td>
<td>4</td>
</tr>
<tr>
<td>LARC160</td>
<td>Introduction to Landscape Architecture</td>
<td>3</td>
</tr>
<tr>
<td>PLSC200</td>
<td>Land Surveying</td>
<td>2</td>
</tr>
<tr>
<td>PLSC201</td>
<td>Plant Structure and Function</td>
<td>4</td>
</tr>
<tr>
<td>PLSC202</td>
<td>Management of Horticultural Crops</td>
<td>4</td>
</tr>
<tr>
<td>PLSC253</td>
<td>Woody Plants for Mid-Atlantic Landscapes I</td>
<td>3</td>
</tr>
<tr>
<td>PLSC254</td>
<td>Woody Plants for Mid-Atlantic Landscapes II</td>
<td>3</td>
</tr>
<tr>
<td>PLSC255</td>
<td>Landscape Design and Implementation</td>
<td>4</td>
</tr>
<tr>
<td>PLSC271</td>
<td>Plant Propagation</td>
<td>3</td>
</tr>
<tr>
<td>PLSC305</td>
<td>Introduction to Turf Management, <strong>OR</strong></td>
<td>3</td>
</tr>
<tr>
<td>ENST411</td>
<td>Principles of Soil Fertility</td>
<td></td>
</tr>
<tr>
<td>PLSC320</td>
<td>Principles of Site Engineering</td>
<td>4</td>
</tr>
<tr>
<td>PLSC321</td>
<td>Landscape Structures and Materials</td>
<td>3</td>
</tr>
<tr>
<td>PLSC361</td>
<td>Commercial Principles of Landscape Management</td>
<td>3</td>
</tr>
<tr>
<td>PLSC389</td>
<td>Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>PLSC420</td>
<td>Principles of Plant Pathology</td>
<td>4</td>
</tr>
</tbody>
</table>
PLSC452 Principles of Landscape Establishment and Maintenance 3

Total CORE, PLSC and Landscape Management Area 105

University Electives 15

Area D: Plant Science Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSCI337</td>
<td>Biology of Insects</td>
<td>4</td>
</tr>
<tr>
<td>BSCI442</td>
<td>Plant Physiology, OR</td>
<td></td>
</tr>
<tr>
<td>PLSC 400</td>
<td>Environmental Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM231/232</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM271/272</td>
<td>General Chemistry and Energetics</td>
<td>4</td>
</tr>
<tr>
<td>MATH140</td>
<td>Calculus I, OR</td>
<td>3</td>
</tr>
<tr>
<td>MATH220</td>
<td>Elementary Calculus I</td>
<td></td>
</tr>
<tr>
<td>PHYS121</td>
<td>Fundamentals of Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PLSC201</td>
<td>Plant Structure and Function</td>
<td>4</td>
</tr>
<tr>
<td>PLSC202</td>
<td>Management of Horticultural Crops</td>
<td>4</td>
</tr>
<tr>
<td>PLSC203</td>
<td>Plants, Genes and Biotechnology</td>
<td>3</td>
</tr>
<tr>
<td>PLSC271</td>
<td>Plant Propagation</td>
<td>3</td>
</tr>
<tr>
<td>PLSC399</td>
<td>Special Problems in Plant Science</td>
<td>3</td>
</tr>
<tr>
<td>PLSC420</td>
<td>Principles of Plant Pathology</td>
<td>4</td>
</tr>
</tbody>
</table>

Advanced Plant Science Electives (Select one of the following)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLSC403</td>
<td>Crop Breeding</td>
<td>3</td>
</tr>
<tr>
<td>PLSC430</td>
<td>Water and Nutrient Planning for the Nursery &amp; Greenhouse Industry</td>
<td>3</td>
</tr>
<tr>
<td>PLSC432</td>
<td>Greenhouse Crop Production</td>
<td>3</td>
</tr>
<tr>
<td>PLSC433</td>
<td>Technology of Fruit and Vegetable Production</td>
<td>4</td>
</tr>
<tr>
<td>PLSC452</td>
<td>Principles of Landscape Establishment and Maintenance</td>
<td>3</td>
</tr>
<tr>
<td>PLSC456</td>
<td>Nursery Crop Production</td>
<td>3</td>
</tr>
<tr>
<td>PLSC474</td>
<td>Physiology of Maturation and Storage of Horticultural Crops</td>
<td>3</td>
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Advanced Science Electives (Select one of the following)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCHM261</td>
<td>Elements of Biochemistry, OR</td>
<td>4</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>BSCI435</td>
<td>Plant Biochemistry</td>
<td></td>
</tr>
<tr>
<td>ENST411</td>
<td>Principles of Soil Fertility</td>
<td>3</td>
</tr>
<tr>
<td>ENST417</td>
<td>Soil Hydrology and Physics</td>
<td>3</td>
</tr>
<tr>
<td>ENST421</td>
<td>Soil Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>PHYS122</td>
<td>Fundamentals of Physics II</td>
<td>3</td>
</tr>
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</table>

Total CORE, PLSC and Plant Science Area 101-104

University Electives 16-19

**Area E: Turf and Golf Course Management Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BSCI105</td>
<td>Principles of Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BSCI106</td>
<td>Principles of Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BSCI337</td>
<td>Biology of Insects</td>
<td>4</td>
</tr>
<tr>
<td>CHEM104</td>
<td>Fundamentals of Organic and Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>COMM100</td>
<td>Foundations of Oral Communication, OR</td>
<td>4</td>
</tr>
<tr>
<td>COMM107</td>
<td>Oral Communication: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>ENBE237</td>
<td>Design of Irrigation Systems</td>
<td>1</td>
</tr>
<tr>
<td>ENST411</td>
<td>Principles of Soil Fertility</td>
<td>3</td>
</tr>
<tr>
<td>PHYS117</td>
<td>Introduction to Physics, OR</td>
<td>4</td>
</tr>
<tr>
<td>PHYS121</td>
<td>Fundamentals of Physics I</td>
<td></td>
</tr>
<tr>
<td>PLSC305</td>
<td>Introduction to Turf Management</td>
<td>3</td>
</tr>
<tr>
<td>PLSC389</td>
<td>Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>PLSC400</td>
<td>Environmental Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PLSC401</td>
<td>Pest Management Strategies for Turfgrass</td>
<td>3</td>
</tr>
<tr>
<td>PLSC402</td>
<td>Sports Turf Management</td>
<td>3</td>
</tr>
<tr>
<td>PLSC410</td>
<td>Commercial Turf Maintenance and Production</td>
<td>3</td>
</tr>
<tr>
<td>PLSC420</td>
<td>Principles of Plant Pathology</td>
<td>4</td>
</tr>
<tr>
<td>PLSC453</td>
<td>Weed Science</td>
<td>3</td>
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</tbody>
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Total CORE, PLSC and Turf and Golf Course Management Area 99

University Electives 21

**Area F: Urban Forestry Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AREC240</td>
<td>Introduction to Economics and the Environment</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>BMGT220</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>BSCI337</td>
<td>Biology of Insects</td>
<td>4</td>
</tr>
<tr>
<td>BSCI497</td>
<td>Insect Pests of Ornamentals &amp; Turf</td>
<td>4</td>
</tr>
<tr>
<td>CHEM104</td>
<td>Fundamentals of Organic and Biochemistry, OR</td>
<td>4</td>
</tr>
<tr>
<td>CHEM271/272</td>
<td>General Chemistry and Energetics</td>
<td></td>
</tr>
<tr>
<td>ENST411</td>
<td>Principles of Soil Fertility</td>
<td>3</td>
</tr>
<tr>
<td>LARC160</td>
<td>Introduction to Landscape Architecture</td>
<td>3</td>
</tr>
<tr>
<td>PLSC171</td>
<td>Introduction to Urban Forestry</td>
<td>4</td>
</tr>
<tr>
<td>PLSC201</td>
<td>Plant Structure and Function</td>
<td>4</td>
</tr>
<tr>
<td>PLSC253</td>
<td>Woody Plants for Mid-Atlantic Landscapes I</td>
<td>4</td>
</tr>
<tr>
<td>PLSC254</td>
<td>Woody Plants for Mid-Atlantic Landscapes II</td>
<td>3</td>
</tr>
<tr>
<td>PLSC272</td>
<td>Principles of Arboriculture</td>
<td>3</td>
</tr>
<tr>
<td>PLSC361</td>
<td>Commercial Principles of Landscape Management</td>
<td>3</td>
</tr>
<tr>
<td>PLSC389</td>
<td>Internship</td>
<td>1-3</td>
</tr>
<tr>
<td>PLSC400</td>
<td>Environmental Plant Physiology</td>
<td>3</td>
</tr>
<tr>
<td>PLSC420</td>
<td>Principles of Plant Pathology</td>
<td>4</td>
</tr>
<tr>
<td>PLSC471</td>
<td>Forest Ecology</td>
<td>3</td>
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<tr>
<td>PLSC472</td>
<td>Capstone - Urban Forest Project Management</td>
<td>3</td>
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**Suggested Core Courses and Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOM301*</td>
<td>Introduction to Biometrics</td>
<td>3</td>
</tr>
<tr>
<td>BSCI460</td>
<td>Plant Ecology, OR</td>
<td>3</td>
</tr>
<tr>
<td>BSCI460/461</td>
<td>(Plant Ecology Lecture and Lab)</td>
<td>5</td>
</tr>
<tr>
<td>CHEM231/232</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM241/242</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>COMM107</td>
<td>Oral Communication: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>ENST413</td>
<td>Soil &amp; Water Conservation</td>
<td>3</td>
</tr>
<tr>
<td>ENST415</td>
<td>GIS Application in Soil Science</td>
<td>3</td>
</tr>
<tr>
<td>ENST444</td>
<td>Remote Sensing of Agriculture and Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>GEOG201</td>
<td>Geography of Environmental Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEOG347</td>
<td>Introduction to Biogeography</td>
<td>3</td>
</tr>
<tr>
<td>GVPT170</td>
<td>Introduction to American Government</td>
<td>3</td>
</tr>
<tr>
<td>GVPT273</td>
<td>Introduction to Environmental Politics</td>
<td>3</td>
</tr>
<tr>
<td>LARC450</td>
<td>Environmental Resources</td>
<td>3</td>
</tr>
<tr>
<td>MATH220*</td>
<td>Elementary Calculus I</td>
<td>3</td>
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</tbody>
</table>
NRMT460 Principles of Wildlife Management 3
NRMT461 Urban Wildlife Management 3
NRMT489B Field Experience: Park Management 1
PHYS121*/122* Fundamentals of Physics I / II, OR 8
PHYS141*/142* Principles of Physics
PLSC200 Land Surveying 2
PLSC203 Plants, Genes and Biotechnology 3
PLSC320 Principles of Site Engineering 3
PLSC400* Environmental Plant Physiology 3
PLSC473 Woody Plant Physiology 3
PLSC475 Silviculture 4
SOCY100 Introduction to Sociology 3
SOCY105 Introduction to Contemporary Social Problems 3
SOCY305 Scarcity and Modern Society 3
SPAN223 United States Latino Culture 3
URSP100 Challenge of the Cities 3
URSP320 Planning of the Contemporary City 3
URSP372 Diversity and the City 3

Total CORE, PLSC and Urban Forestry Area 99
University Electives 21

Note: Courses with an asterisk are suggested electives for students planning on graduate study in Forestry.

Requirements for the Minor

Minor in Landscape Management

The Landscape Management minor provides students with a foundation in plant sciences and business management. The required science courses lead to an integrative understanding of plant growth and development and the plant’s responses to its environment. These courses also teach students the skills needed to recommend best management practices and to identify plant abnormalities in the landscape. The business courses in this minor foster an understanding of the business structure, human resource management and financial management associated with landscape management companies.

All courses presented in this minor must be passed with a grade of C or better. To complete this minor, students will be expected to complete an 18-19 credit course sequence. Students should also be aware that many of the courses in this minor list PLSC100, Introduction to Horticulture, as a prerequisite.

Curriculum:

Credits
Select one of the following courses:

- **PLSC253** Woody Plants for Mid-Atlantic Landscapes I 3
- **PLSC254** Woody Plants for Mid-Atlantic Landscapes II 3
- **PLSC305** Introduction to Turf Management 3
- **PLSC361** Commercial Principles of Landscape Management 3
- **PLSC452** Principles of Landscape Establishment and Maintenance 3

**Total Credits:** A minimum of 18 or 19 credits is required to complete this minor. (Depending on which AREC or BMGT course is chosen)

- A student may use a maximum of six credits (or two courses) to satisfy the requirements of both a major and a minor. In the event that more than six credits of coursework listed above are required in the student's major, he or she should contact the Landscape Management faculty advisor for course substitutions.

- This minor is particularly relevant to students who are interested in pursuing a career in the landscape industry. Landscape architecture, environmental science and policy, and life science majors can readily complete these minor requirements within their four-year programs.

- Students from the business school and social sciences who are seeking managerial careers in this rapidly-expanding service industry would also find this minor to be relevant.

**Advising**

The Department has mandatory faculty advising for each of its major and minor programs. Students are required to meet with their faculty advisor at least twice a year. See the Program Management Specialist in Undergraduate Studies in 2102 Plant Sciences Building (301-405-4355) for additional information.

**Internships**

Internships with scientists are available at nearby federal and state agencies. Numerous internships also exist and can be readily arranged for students interested in private sector employment.

**Student Societies and Professional Organizations**

The department sponsors student teams that participate in regional and national contests. These teams prepare in the following areas: turf, weeds and crops, and landscape contracting.

**Scholarships and Financial Assistance**

Several scholarships and awards are available to PLSC students. Contact the Associate Dean's office at 301-405-2078 for additional information. The Department also maintains a listing of scholarships. Contact Kathy Hunt in 2102 Plant Sciences, 301-405-4355.

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the
awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

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Plant Biology

Departments in the College of Chemical and Life Sciences have been reorganized. Courses in plant biology are now offered by the Department of Cell Biology and Molecular Genetics.

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Pre-Health Professions Advising and Programs

0129 Chemistry Building, 301-405-7805
www.prehealth.umd.edu/

The Health Professions Advising Office (HPAO), part of the College of Chemical and Life Sciences, serves students interested in pursuing careers in Medicine, Dentistry, or Allied Health. The HPAO maintains limited information about pre-veterinary medicine and encourages students interested in the veterinary profession to visit the Center for Public and Corporate Veterinary Medicine and visit the Veterinary Medicine web site at www.agnr.umd.edu/undergrad/preVet.cfm.

Advisors and staff in the HPAO provide students with pre-professional planning, including individual and group advising, career preparation workshops, admission information for pre-professional programs, and much more. Pre-professional program advising provides the academic, and experiential foundations required for entrance into professional schools.

The health professions include the fields of Medicine, Dentistry, Optometry, and Podiatry, and the Allied Health fields of Dental Hygiene, Nursing, Occupational Therapy, Pharmacy, Physical Therapy and Physicians Assistant. The pre-health professional programs described below are not degree granting programs at the University of Maryland. They are recommended programs of study for students interested in each profession. A student who designates themselves as a student in any of these pre-health professional programs will be assigned as an undecided student in the Division of Letters and Sciences, where they will receive academic advising. Alternatively, any pre-professional student may opt to declare an academic major. Under either option pre-professional students, including those interested in the allied health fields, may receive advising related to admission to professional schools at the Health Professions Advising Office.

Students planning to pursue professional programs in Medicine, Dentistry, Optometry, Osteopathic Medicine or Podiatry after graduation from University of Maryland must declare an academic major. Students who are undecided about which academic major they will declare may enter the Division of Letters and Sciences, but must adhere to the University of Maryland policy that students declare a degree-granting major by the time they reach 60 credits.

Students interested in Allied Health professions can in some cases transfer to such programs before earning a bachelor's degree. Such students may enter the Division of Letters and Science, where they will receive academic advising. They too must adhere to the University of Maryland policy that students must declare an academic major by the time they reach 60 credits.

Health Professions Resource Library
This library offers helpful resources in addition to information from individual professional associations mentioned in the pre-professional programs described below. Located in the HPAO the library resources include professional school catalogs, CDs, testing information, and preparation materials. The HPAO staff encourages students to review information on careers and professions across the country.

Pre-Nursing
Pre-Dental Hygiene
Pre-Medicine (Allopathic, Osteopathic, Optometry, Podiatry)
Pre-Occupational Therapy
Pre-Pharmacy
Pre-Physical Therapy
Pre-Physician Assistant
Other Health Programs
Pre-Dentistry
Pre-Nursing

The Pre-Nursing program prepares students for entrance into a professional curriculum for Nursing at institutions that offer Bachelor of Science in Nursing programs. Pre-Nursing is not a degree-granting program at the University of Maryland, College Park. A Baccalaureate degree program for a Bachelor of Science in Nursing (B.S.N.) follows a 2+2 model also known as a Traditional Baccalaureate program. Students may complete two years of prerequisite courses at the University of Maryland, College Park, and then apply for admission into a professional school to complete two years of professional course work, which includes classroom, laboratory, and clinical education.

University of Maryland students also have the option of completing a four-year degree at College Park in their selected major, in addition to completing approximately twenty to twenty-five credits of nursing prerequisites. This is the Second Degree  or Accelerated Second Degree model. In this model, students complete degree requirements in their chosen major, as well as the nursing prerequisites for entrance into an accelerated B.S.N. program. The institution offering the program confers a Bachelor of Science in Nursing upon completion of the program.

Prerequisites may change; students are strongly encouraged to contact professional programs for the most current requirements. The American Association of Colleges of Nursing maintains specific information about individual nursing program prerequisites. See www.aacn.edu.

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Pre-Dental Hygiene

The Pre-Dental Hygiene program prepares students for entrance into a professional curriculum for Dental Hygiene at institutions that offer Bachelor of Science in Dental Hygiene programs. Pre-Dental Hygiene is not a Pre-Dental major and is not a degree-granting program at the University of Maryland, College Park. A Baccalaureate degree program for a Bachelor of Science in Dental Hygiene (B.S.-D.H.) follows a 2+2 model. Students may complete two years of prerequisite courses at the University of Maryland, College Park, and then apply for admission into a professional school.

University of Maryland students also have the option of completing a four-year degree at College Park in their selected major, in addition to completing dental hygiene prerequisites, the 4+2 model. In this case, students will complete degree requirements in their chosen major, as well as the pre-dental hygiene prerequisites for entrance into a professional dental hygiene program. The institution offering the degree confers a Bachelor of Science in Dental Hygiene upon successful completion of the program.

Prerequisites may change; students are strongly encouraged to contact professional programs for the most current requirements. The American Dental Hygienists Association and the American Dental Association maintain information about individual B.S.-D.H. program prerequisites. See www.adea.org
Pre-Medicine (Allopathic, Osteopathic, Optometry, Podiatry)

Four-Year Baccalaureate Program

It is preferred that pre-medical students at the University of Maryland complete a four-year undergraduate degree prior to entrance into medical school. Students are encouraged to pursue a diversified curriculum, balancing humanities, social sciences and fine arts courses with science and mathematics courses. The four-year student will plan an undergraduate experience that includes courses to satisfy their selected major and pre-medical admission requirements. Students should seek pre-medical advising early in order to create an appropriate four-year pre-medical plan. The library area of HPAO and the HPAO website each provide specific information on each of the medical programs. The national associations: AAMC, www.aamc.org and AACOM, aacom.org provide current information for applicants.

Early Assurance Program

University of Maryland pre-medical students have an opportunity to apply to The George Washington University School of Medicine’s Early Assurance Program. This program encourages talented and committed undergraduate sophomore students, who have achieved academic distinction, to gain a provisional early acceptance to the M.D. program. The George Washington University School of Medicine and Health Sciences makes the decision to accept a qualified student into the program. Selected sophomore students (rising juniors, when selected) are nurtured through their undergraduate experience at the University of Maryland. Upon successful completion of the undergraduate program and all delineated requirements, students are guaranteed admissions to The George Washington University School of Medicine and Health Sciences for a four-year M.D. degree program. Please visit HPAO to learn more about this program; the pre-medical website offers detailed information and specific instructions.

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Pre-Occupational Therapy

The Pre-Occupational Therapy program prepares students for entrance into a professional curriculum for Occupational Therapy at institutions that offer professional advanced degrees, including master or doctoral degrees. Community colleges and technical schools offer associate degrees or certificates to students who wish to become occupational therapy assistants. Some colleges offer Bachelor degrees in Occupational Therapy, while others offer combined Bachelor and Master degree programs.

Students who wish to enter the occupational therapy profession may choose from several educational paths; they should thoroughly research the different options to determine the best path to their career goals. University of Maryland students have the option of completing a four-year degree at College Park, in their selected major, in addition to completing occupational therapy prerequisites. They may then choose to complete a Post-Bachelor certificate, Master of Science or doctoral degree in Occupational Therapy offered by professional schools. Some states require a degree in occupational therapy prior to approving licensure to work as an occupational therapist in that state. The certificate cannot substitute for a degree. Students should become familiar with the laws of the state(s) in which they wish to work if they choose to pursue a certificate rather than a degree.

Prerequisites may change; students are strongly encouraged to contact professional programs for the most current requirements. The American Occupational Therapy Association maintains specific information about individual program prerequisites. See www.aota.org

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Pre-Pharmacy

The Pre-Pharmacy program prepares students for entrance into a professional curriculum for Pharmacy at institutions that offer a Doctor of Pharmacy (Pharm.D.) degree program. Pre-Pharmacy is not a degree-granting program at the University of Maryland, College Park. A Pharm.D. degree program follows a 2+4 model in which students complete two years of prerequisite courses at the University of Maryland, College Park and then apply for admission into a professional pharmacy school to complete four years of professional coursework, which includes classroom, laboratory, and clinical education.

University of Maryland students also have the option of completing a four-year degree at College Park in their selected major, in addition to completing pharmacy school prerequisites, a 4 + 4 model. In this model, students complete degree requirements in their chosen major, as well as the pre-pharmacy prerequisites for entrance into a professional pharmacy program. The institution offering the program confers a Pharm.D. degree upon completion of the program.

Prerequisites may change; students are strongly encouraged to contact professional programs for the most current requirements. The American Association of Colleges of Pharmacy maintains information about individual Pharm.D. program prerequisites. See www.aacp.org
Pre-Physical Therapy

The Pre-Physical Therapy program prepares students for entrance into a professional curriculum for Physical Therapy at institutions that offer professional advanced degrees, including master or doctoral degrees. Pre-Physical Therapy is not a degree-granting program at the University of Maryland, College Park.

The educational track a student follows in order to obtain a Master of Physical Therapy (M.P.T.) degree varies depending on the professional schools to which the student intends to apply and, importantly, the expected year of matriculation into the professional phase of Physical Therapy. Currently, the accepted, entry-level clinical degree to practice as a Physical Therapist is the M.P.T. Students may enter Master-level professional programs by two routes. By the first route, students complete sixty to ninety credits of prerequisites and then apply to the M.P.T. programs for which they completed the prerequisites. The length of time to complete the Master-level coursework is approximately two to three years. By the second route, students complete a Baccalaureate degree at the University of Maryland, College Park, in addition to the prerequisites required by individual professional schools. Students, choosing this option, complete two to three years of Master-level course work. Either route allows the student to earn an M.P.T. from the professional school the student attends.

Many physical therapy schools now confer doctoral degrees. For these schools, University of Maryland students need to complete a four-year degree in their selected major in addition to completing physical therapy prerequisites. Some physical therapy schools also require some health-care experience in the physical therapy field.

Several educational paths exist for students who wish to enter the physical therapy field. Students are encouraged to thoroughly research this profession and determine which educational path best leads to their particular career goals.

Prerequisites may change; students are strongly encouraged to contact professional programs for the most current requirements. The American Physical Therapy Association maintains information about individual program prerequisites. See www.apta.org
Pre-Physician Assistant

The Pre-Physician Assistant (P.A.) program prepares students for entrance into a professional curriculum at institutions that offer professional advanced degrees or post-baccalaureate certificates. Pre-Physician Assistant is not a degree-granting program at the University of Maryland, College Park. At the University of Maryland, students may complete the necessary prerequisite courses required by the professional physician assistant programs to which they will be applying.

Several educational paths exist for students who wish to enter the physician assistant field. Due to the many variables in the educational options, students are encouraged to thoroughly research this profession and determine which educational path best leads to their particular career goals. Students should check the particular prerequisites of the P.A. educational programs that interest them.

Prerequisites may change; students are strongly encouraged to contact professional programs for the most current requirements. The American Academy of Physician Assistants maintains information about individual program prerequisites. See www.aapa.org
Other Health Programs

The pre-biomedical science research and medical technology program prepares students for entrance into the professional curriculum for medical technologists and biotechnologists. Pre-Medical Technology is not a degree-granting program at the University of Maryland, College Park.

A degree program for a Bachelor of Science in Medical Technology (B.S.-M.T.) generally follows a 2+2 model. Students may complete two years of prerequisite courses at the University of Maryland, College Park and then apply for admission into a professional school to complete two years of professional coursework, which includes classroom, laboratory, and clinical education.

University of Maryland students also have the option of completing a four-year degree at College Park in their selected major, in addition to completing medical technology prerequisites, the 4 + 2 model. In this model, students complete degree requirements in their chosen major, as well as the pre-medical technology prerequisites for entrance into a professional medical technology program. The institution offering the program confers a Bachelor of Science in Medical Technology degree on completion of the program.

Prerequisites may change; students are strongly encouraged to contact professional programs for the most current requirements. The American Society of Clinical Pathologists and the National Accrediting Agency for Clinical Laboratory Sciences maintain information about individual B.S.-M.T. program prerequisites.

Student Organizations and Honor Societies

See the web site for a list: www.ltsc.umd.edu/lawhealth.html

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Pre-Dentistry

The pre-professional program for pre-dental students provides advising for students preparing to apply to dental school. The recommendations of American dental schools and the requirements for a baccalaureate degree at the University of Maryland form the basis for the advising.

Four-Year Baccalaureate Program

Pre-dental students at the University of Maryland are encouraged to complete a four-year undergraduate degree, with a diversified curriculum, balancing humanities, social sciences and fine arts courses with science and mathematics courses, prior to entering dental school. Courses in which students work with their hands are also advised. Students in the four-year program must plan an undergraduate experience that satisfies the requirements of their selected major, as well as pre-dental admission requirements. Students should seek pre-dental advising early in order to create an appropriate four-year pre-dental plan. The national associations: AAMC, www.aamc.org and AACOM, www.aacom.org provide current information for applicants.

Three-year Arts-Dentistry Degree Program

For highly motivated and academically talented students, the University of Maryland, College Park and University of Maryland School of Dentistry offer the three-year Arts-Dentistry Program. This program gives students the opportunity to apply to the University of Maryland School of Dentistry one year early. This accelerated program requires students to complete their dental school admission requirements in three years, as they apply to dental school at the end of the second year and the beginning of their third year. Competitive students must apply and be accepted by the University of Maryland Dental School. Students, accepted in the combined arts-dentistry program, receive the B.S. degree (Arts-Dentistry) after satisfactory completion of the first year at the dental school and upon the recommendation of the Dean of the School of Dentistry and approval of the University of Maryland, College Park. Participation in the combined-degree program at the University of Maryland, College Park does not guarantee admission to the University of Maryland School of Dentistry.

The LHPAO strongly urges incoming students interested in this combined-degree program to identify their interest and consult with the Pre-Health advisor very early in their academic career. Please visit the website for specific details and instruction.
Pre-Professional Advising: Law

Pre-Law Advising Program

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Pre-Law Advising Program

Letters and Sciences
0110 Hornbake Library, 301-405-2793
www.prelaw.umd.edu

The Pre-Law Advising Program, part of Letters and Sciences, serves students interested in pursuing law school and careers in law. The program provides students with law school planning, including individual and group advising, career preparation workshops, admission information, and much more. While law schools do not require, favor, or prefer specific majors, the pre-law advisor can provide guidance concerning the choice of major. Pre-law does not serve as an undergraduate major, nor does the program require completion of a specific academic curriculum.

Four-Year Baccalaureate Program

Most law schools require applicants to have received a Bachelor's degree prior to law school enrollment. A wide variety of majors give students an excellent foundation for law school. The student should select a major and plan an undergraduate experience in which they will be successful and helps them acquire skills that are essential in preparing to perform well on the LSAT, in law school, and ultimately as a lawyer. These skills include imaginative and coherent thinking, critical reasoning, accurate and perceptive reading, and a strong command of the spoken and written language, including grammar.

In some cases, law schools will consider truly outstanding applicants with only three years of academic work, as described below. Law schools do not require the completion of prerequisite courses for admission, but they do require that the student follow one of the standard academic majors offered at the student's undergraduate institution. The LSAT is offered four times per calendar year and is required of all applicants. More information on the LSAT and related admissions material may be found at www.lsac.org.

Three-Year Arts/Law Degree

The University of Maryland has cooperative agreements with the University of Maryland, School of Law and with the University of Baltimore Law School. These agreements provide students at College Park, who are enrolled in any recognized major and meet certain qualifications, with the opportunity to apply to law school one year early. If accepted, the Three-Year Arts/Law Degree program allows students to begin their law school studies prior to their receipt of their baccalaureate degree. Instead, the University of Maryland, College Park awards these students their baccalaureate degree in Arts/Law upon satisfactory completion of the first year of law school. Participation in this program at the University of Maryland, College Park and application to either or both of the aforementioned law schools under this program does not guarantee admission.

This program is only available with the University of Maryland, School of Law and the University of Baltimore Law School and may not be an appropriate choice for all students. Students who consider this program should contact the pre-law advisor for more information or view the website, at www.prelaw.umd.edu.
Pre-Professional Advising: Pre-Veterinary Medicine

Pre-Veterinary Medicine

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Pre-Veterinary Medicine

0112 Symons Hall, 301-314-7222
www.agnr.umd.edu/prospective/preVet.cfm
eweiss@umd.edu

University of Maryland students in any major may prepare for admission to veterinary school by completing the basic science and other courses required by veterinary colleges. The College of Agriculture and Natural Resources major in Animal Sciences major (Science/Pre-professional option) is designed to prepare students for the predominance of those required courses. However, students should consult catalogs from the veterinary schools to which they are interested in applying to determine the specific courses required by each. That information is also available through the American Association of Veterinary Medical Colleges: www.aavmc.org.

Advising for pre-veterinary students occurs at two levels: initially, Dr. Mark Varner, pre-veterinary advisor in the Department of Animal and Avian Sciences (1415 Animal Sciences Center; 301-405-1373 or email at markv@umd.edu), will advise students, regardless of major, about the basic courses required by most veterinary schools. As students progress and establish academic credentials, they should also use the advising resources of the Virginia-Maryland Regional College of Veterinary Medicine, 8075 Greenmead Drive, University of Maryland, College Park, MD 20742-3711. Dr. Katherine Feldman (301-314-6830, kfeldman@umd.edu) is the pre-veterinary advisor for the Regional College at that location.

Early Admission:
Students enrolled in the College of Agriculture and Natural Resources are eligible for a special degree program that confers a Bachelor of Science degree in Agriculture and Pre-Veterinary Medicine. Students who will have completed 90 undergraduate credits (including all science courses required for veterinary school application and university CORE) and will have met other application criteria for veterinary schools by the end of the junior year, may apply in the Fall of their junior year. If they matriculate in an accredited college of veterinary medicine, they may apply the successful completion of the first thirty hours of their professional training towards the completion of their baccalaureate degree. See the Undergraduate Catalog entry for Animal Sciences for more details.

Further information on pre-veterinary education in the College of Agriculture and Natural Resources may be obtained by contacting Ms. Elizabeth Weiss (301-314-7222 or email eweiss@umd.edu).

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Undergraduate Catalog 2007-2008

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Undergraduate Research Experiences

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Awards and Recognition

PSYCHOLOGY (PSYC)

College of Behavioral and Social Sciences

1107 Biology-Psychology Building, 301-405-5866

www.psychology.umd.edu

psycadvising@psyc.umd.edu

Chair: T. Wallsten (Chair)

Director: P. Hangas (Graduate Director), M. Marinelli (Undergraduate Director)


Associate Professors: M. Dougherty, C. Lejuez, K. Murnane, K. Norman, K. O'Brien, K. O'Grady, D. Yager

Assistant Professors: A. Chronis, J. Herberholz, T. Tashiro, T. Troyer


Affiliate Professors: N. Epstein, E. Fink

Affiliate Associate Professors: C. Stevens, P. Tesluk, S. Wallsten

Affiliate Assistant Professors: M. Byrne, S. Daughters, K. Gratz, D. Petersen, M. Tull, K. Zamostny

Adjunct Professors: D. Beidel, A. Bellack, J. Gold

Adjunct Associate Professors: D. Fago, K. Klein

Adjunct Assistant Professors: J. Carter, S. Friedman, D. Huber, H. Jiang, D. Johnson, D. Lewin, G. Royalty, S. Spiegel, R. Streisand, B. Thompson, L. Tipton

Professors Emeriti: N. Anderson, R. Brown, R. Freeman, B. Fretz, L. Gollub, W. Hodos, R. McIntire, M. Penner, B. Schneider, R. Steele, C. Sternheim, F. Tyler, R. Waldrop

The Major

The undergraduate major in psychology provides an introduction to the methods by which the behavior of humans and other organisms are studied, and to the biological conditions and social factors that influence behavior.

The program emphasizes a strong foundation in quantitative and research methods. Students who wish to pursue graduate study in psychology or related professional schools will have opportunities to participate in research.

Students who are interested in the biological aspects of behavior tend to choose a program leading to the Bachelor of Science (BS) degree, while those interested primarily in the impact of social factors on behavior tend to choose the Bachelor of Arts (BA) degree. The choice of program is made in consultation with an academic advisor.

Program Objectives

Students in the BA and BS programs in psychology should acquire the tools and experiences necessary for future training or work in the behavioral and social sciences. These include a foundation in research method, critical and creative problem solving skills, and the communication skills necessary to impart this knowledge to others. Students should also have developed content knowledge representing both the breadth and depth of the fields in psychology.

Program Learning Outcomes

The undergraduate curriculum in psychology has been designed to challenge students and to highlight the four major learning objectives that we believe will prepare our graduates for productive roles in society. These learning objectives are consistent with the institutional goals developed in the University of Maryland Learning Outcomes and the American Psychological Association's recommendations for undergraduate programs.

1. Research Methods in Psychology

   Students should understand and apply basic research methods in psychology including research design, data analysis, and interpretation.

2. Critical Thinking Skills in Psychology

   Students should be able to use critical and creative thinking, skeptical inquiry, and, when possible, the scientific approach to solve
problems related to behavior and mental processes.

3. **Communication Skills**
   Students should be able to communicate effectively in a variety of formats.

4. **Content in Psychology**
   Students should demonstrate familiarity with the questions that gave rise to content knowledge, a sampling of the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.

For more information about Learning Objectives in the Undergraduate Psychology Program, please visit [www.psychology.umd.edu](http://www.psychology.umd.edu)

### Admission to the Major

In accordance with University policy, the Department of Psychology has been designated a Limited Enrollment Program (LEP). All first-time freshman admits who request Psychology will be directly admitted into the major. Other first-time freshman that wish to declare Psychology as a major prior to the end of the schedule adjustment period of the second semester in residence will be allowed to do so.

In order to remain a Psychology major, newly admitted freshman will be required to meet an academic performance review on or before the end of the semester in which they attempt 45 University of Maryland credits. This standard includes:

a. Completion of PSYC 100 with a grade of B or better, or, if a student enters with AP or IB credit for PSYC 100, this requirement is replaced by completion of PSYC 221 with a grade of B or better;
b. Completion of MATH 111 or 140 or 220 with a grade of C or better;
c. Completion of BSCI 105 or BSCI 106 or CHEM 131+132 or PHYS 121 with a grade of C or better;
d. A minimum cumulative GPA of 2.00.

All other students, including both internal and external transfer students, will not be admitted to the program until they have met the following requirements:

a. Completion of PSYC 100 with a grade of B or better, or, if a student enters with AP or IB credit for PSYC 100, this requirement is replaced by completion of PSYC 221 with a grade of B or better;
b. Completion of MATH 111 or 140 or 220 with a grade of C or better;
c. Completion of BSCI 105 or BSCI 106 or CHEM 131+132 or PHYS 121 with a grade of C or better;
d. A minimum cumulative GPA based on all previous college-level coursework of 2.70 or higher.

As is the general case for all Limited Enrollment Programs:

a. Only one "gateway" or performance review course may be repeated to earn the required grade and that course may be repeated only once;
b. Students may apply only once to an LEP. Students who have been dismissed from the major may not reapply;
c. Students must maintain a cumulative GPA of 2.00. Failure to do so will result in dismissal from the major.

Any student denied admission or dismissed from the major may appeal. Dismissed students appeal directly to the Director of Undergraduate Studies in Psychology ([www.psychology.umd.edu](http://www.psychology.umd.edu)). Internal transfer students appeal to the Office of the Dean for Behavioral and Social Sciences ([www.bsos.umd.edu](http://www.bsos.umd.edu)). External transfer students appeal to the Office of Admissions ([www.umd.edu/admissions/](http://www.umd.edu/admissions/)).

### Requirements for the Major

All students must complete at least 35 credits (11 courses) in Psychology. The required courses include PSYC 100, 200, at least two (3 credit) courses at the 400-level, and at least two laboratory (4 credit) courses at the 400-level (for a total of 14 credits at the 400 level). Laboratory courses include: PSYC 401, 407, 410, 420, 433, 440, 450. The following courses may not be included in the required 35 credits: PSYC 309A, 309C, 386, 476, and 479. In order to assure breadth of coverage, psychology courses have been divided into four areas. The 35 credit total must include at least two courses from two of the four areas and at least one course from each of the remaining areas. The areas and courses are:

#### Required Psychology Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC100</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>PSYC200</td>
<td>Statistical Methods in Psychology</td>
</tr>
</tbody>
</table>

*Two from:

- PSYC401 Biological Bases of Behavior Laboratory
- PSYC410 Experimental Psychology: Sensory Processes I
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC420</td>
<td>Experimental Psychology: Social Processes I</td>
</tr>
<tr>
<td>PSYC433</td>
<td>Basic Helping Skills: Research and Practice</td>
</tr>
<tr>
<td>PSYC440</td>
<td>Experimental Psychology: Cognitive Processes</td>
</tr>
<tr>
<td>PSYC450</td>
<td>Field Research in Organizational Psychology</td>
</tr>
</tbody>
</table>

**Psychology Area Courses**
- At least one course in each of the four areas.
- At least two courses in two of the four areas.
- At least two 400-level (3 credit) courses

**Area I**
on course from PSYC 206, 301, 310, 401, 402, 403, 404, 406, 410

**Area II**
on course from PSYC 221, 341, 420, 423, 424, 440, 442, 443

**Area III**

**Area IV**
one course from PSYC 336, 361, 450, 460, 463, 464, 465

**No Area**

**415**

**Supporting Course Sequence**

*Note that BSC 103 does not satisfy the lab science requirement for the Psychology major and that a student cannot earn credit for both BSCI 103 and BSCI 105.*

A detailed psychology requirements worksheet and a detailed list of courses by area can be found at [www.psychology.umd.edu](http://www.psychology.umd.edu).

A grade of C (2.0) or better must be earned in all 35 credits of psychology courses used for the major and all credits used to meet the Math-Science supporting course sequence. No course may be used as a prerequisite unless a grade of C is earned in that course prior to its use as a prerequisite. The prerequisite for any psychology laboratory course is completion of PSYC 200 and completion of the Math-Science supporting course sequence.

Students pursuing the Bachelor of Science degree option must complete a minimum of 5 courses/17 credits in mathematics and science. At least three courses must be advanced and at least two courses must contain a lab. The 5 course/17 credits must be completed with at least a 2.0 average. MATH 111, MATH 140, MATH 220, BSCI 105, BSCI 106, CHEM 131+132 and PHYS 121 may be used to satisfy part of the requirement for the B.S. degree. Students should consult the current Psychology Undergraduate website for a list of approved advanced Math-Science Courses.

**Requirements for the Minor**

The Minor in Neurosciences will give the highly qualified and motivated undergraduate an opportunity to study Neuroscience. The emphasis includes study in systems, cognitive, and computational neuroscience in a manner that crosses the traditional boundaries of Psychology, Biological Sciences, and other related disciplines. The minor is most appropriate for students who already have a background in the biological sciences or psychology.

- All majors are eligible for the minor except students in the Physiology & Neurobiology (PHNB) track in Biological Sciences (BSCI).
- There are a number of science course prerequisites for the required and elective classes. Students should carefully review the
prerequisites for all courses listed for the Neurosciences minor. A student without a sufficient science background may not be able to complete the minor in the allotted credits.

- Students may only count a maximum of two courses (6-8 credits) toward both their major degree requirements and the Minor in Neurosciences.

**Eligibility and Application to the Minor**

In order to apply for the Minor in Neurosciences, a student must have:

1. Completed at least 30 college credits and at least 15 credits at UM.
2. Earned at least a C (2.0 GPA) in BSCI105 and CHEM131&132 or have AP equivalents.
3. Earned at least a C (2.0 GPA) in PSYC301 or BSCI330.
4. Be in good academic standing.

Applications for the Minor in Neurosciences will be considered three times each year on October 1, March 1, and June 1. Students will be notified via email regarding the status of their application within three weeks of the submission deadline so that students will know whether or not they are accepted to the prior to early registration for the next semester.

Interested students may submit an application for the minor to the Undergraduate Psychology Office (BPS 1107). Applications are available on the Neurosciences and Cognitive Sciences (NACS) Program website at www.nacs.umd.edu.

**Course Requirements**

There are five required courses (11 - 14 credits) and two elective courses (6-8 credits) for a total of 17-22 credits to complete the minor. The five required courses and their prerequisites are listed below. A list of eligible electives can be found on the program website at www.nacs.umd.edu.

<table>
<thead>
<tr>
<th>Required Courses (5 courses, 11-14 credits)</th>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC301 or BSCI453</td>
<td>PSYC301 Biological Basis of Behavior (3)</td>
<td>BSCI105, PSYC100</td>
</tr>
<tr>
<td></td>
<td>BSCI453 Cellular Neurophysiology (3)</td>
<td>BSCI330, CHEM231/232, PHYS122</td>
</tr>
<tr>
<td>PSYC401 or BSCI454</td>
<td>PSYC401 Biological Basis of Behavior Lab (4)</td>
<td>BSCI105, PSYC200, PSYC301 or equiv.</td>
</tr>
<tr>
<td></td>
<td>BSCI454 Neurophysiology Lab (1)</td>
<td>BSCI330, CHEM231/232, PHYS122</td>
</tr>
<tr>
<td>PSYC402 or BSCI446</td>
<td>PSYC402 Neural Systems (3)</td>
<td>PSYC206 or PSYC301</td>
</tr>
<tr>
<td></td>
<td>BSCI446 Neural Systems (3)</td>
<td>BSCI330</td>
</tr>
<tr>
<td>PSYC403 or BSCI360</td>
<td>PSYC403 Animal Behavior (3)</td>
<td>PSYC206 or PSYC301</td>
</tr>
<tr>
<td></td>
<td>BSCI360 Principles of Animal Behavior (3)</td>
<td>BSCI105, BSCI110, BSCI222</td>
</tr>
<tr>
<td>PSYC409</td>
<td>Topics in Neuroscience Seminar (1)</td>
<td>Permission of Instructor &amp; Department</td>
</tr>
</tbody>
</table>

**Advising**

Academic Advising in Psychology is available each business day in the Undergraduate Psychology Office, Biology-Psychology Building Room 1107 (301-405-5866).

Walk-in advising: Mon, Tue, Wed, and Fri 10am-noon.
Undergraduate Research Experiences

Research experience is strongly encouraged for students who wish to pursue graduate training in psychology. The Undergraduate Psychology Office distributes opportunities for undergraduates to participate in research every semester. See www.psychology.umd.edu or contact a Psychology advisor for recent research postings. Many students find research opportunities on their own by approaching individual faculty members and graduate students with whom they share common research interests.

Freshmen and sophomore students can participate as a Maryland Student Researcher in the Maryland Center for Undergraduate Research (www.ugresearch.umd.edu/programs.html). Students participating in this program work individually with faculty members and earn a citation on their transcript for participation in the program.

Junior and senior students can earn academic credit for research participation (maximum of 9 credits) through PSYC479. Applications and requirements for PSYC479 are available at www.bsos.umd.edu/psyc/main/undergraduate/opportunities/research.html

Internships

Applications and requirements for Psychology Department Internships (PSYC386) are linked from www.testudo.umd.edu each semester.

Psychology majors also can enroll in BSOS College internship programs for internships not directly related to the field of Psychology (www.bsos.umd.edu).

Honors Program

The Honors Program in Psychology is designed to enrich and accelerate the acquiring of knowledge in the field. The goals of the honors program of the psychology department include:

- Educate students to think independently
- Provide opportunities for close, scholarly analysis of significant topics in psychology
- Encourage and provide opportunities for students to undertake research.
- Introduce students to a broad range of psychological ideas and issues

Program Overview:

A. Honors Seminars: These seminars make use of significant source works in psychology rather than textbooks that merely summarize source material. Seminars emphasize scholarly analysis, discussion and writing, rather than the lecture and multiple-choice exam format of most other undergraduate courses. The seminars are planned to cover a variety of the scholarly areas of psychology during each student’s program.

B. Research Apprenticeship: A research experience with a member of the faculty whose work is of interest to the student. This apprenticeship may be informal at first, or it may be undertaken as a supervised field experience. In either case, it should culminate in a piece of original research that the student has designed, executed and reported (the Honors Thesis).

C. Psychology Courses: A program of upper-level psychology courses that cover the major areas of psychology that were not covered in Honors Seminars.

D. Advanced Courses: A program of courses in mathematics and science that provide tools that the student can use in psychology and beyond.

Eligibility for the program:

- Students in good standing in the General Honors Program may be admitted to Psychology Honors at the beginning of the sophomore year, provided (1) a grade of "A" has been earned in PSYC 100 or 100H, (2) the mathematics prerequisite for PSYC 200 has been completed, and (3) the student's overall and psychology GPA are both at least 3.3.

- Other students may be admitted at the end of the sophomore year, or during the junior year, but in no case later than the sixth semester. Such students should have completed three courses in psychology, including PSYC 200, and must have a 3.3 GPA overall and in psychology.

Certain eligibility requirements may be waived in exceptional cases. Applications will be acted on by the Honors Committee.
**Steps for Applying**

1. Write a letter to the Director of the Honors Program, Dr. Steven Brauth (sbrauth@umd.edu), stating why you should be accepted in the honors program. Give any previous academic achievements and state how this would benefit you in the Psychology Department.
2. Within two weeks you will be contacted for an interview with Dr. Brauth.
3. Please bring a transcript to your interview (must have at least a 3.3 GPA).

For more information: /www.bsos.umd.edu/psyc/main/undergraduate/HonorsGuide/honorsguide.htm

**Student Societies and Professional Organizations**

The University of Maryland chapter of Psi Chi (Psychology Honor Society) meets regularly each term. Information about Psi Chi can be found on the board posted outside the Undergraduate Psychology Office (BPS 1107) or by emailing psichi@psyc.umd.edu.

**Awards and Recognition**

For more information about awards and recognition, please visit: www.bsos.umd.edu/psyc/main/undergraduate/opportunities/awards.html

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Public and Community Health (HLTH)

Faculty
Associate Professors: N. Atkinson, C. Hsu
Instructors: D. Hyde, G. Schiraldi, K. Sharp
Lecturers: G. Gilbert, L. Marks, R. Peat, M. Reynolds

The Major

Students graduate with a Bachelor of Science degree in Community Health which prepares students for entry-level health education positions in a variety of community health settings: worksite health promotion, research and development, hospitals, and health agencies.

Requirements for the Major

In addition to the University's CORE, students must fulfill four other general sets of requirements: Electives, Supportive Requirements, Health Electives, and Professional Preparation. HLTH491, the Community Health Internship, is completed during the student's final semester and after all other course work has been successfully completed.

Community Health Major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH130</td>
<td>Introduction to Public &amp; Community Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH140</td>
<td>Personal and Community Health</td>
<td>3</td>
</tr>
<tr>
<td>HLTH230</td>
<td>Introduction to Health Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BSCI105</td>
<td>Principles of Biology</td>
<td>4</td>
</tr>
<tr>
<td>BSCI201</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
</tr>
<tr>
<td>BSCI202</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
</tr>
<tr>
<td>EDMS451</td>
<td>Introduction to Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>One upper level course from any two departments: EDCP or EDHD or FMST</td>
<td>6</td>
</tr>
</tbody>
</table>

Health Electives

Any 6 courses - No more than two experiential courses†

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH106</td>
<td>Drug Use and Abuse</td>
<td>3</td>
</tr>
<tr>
<td>HLTH285</td>
<td>Controlling Stress and Tension</td>
<td>3</td>
</tr>
<tr>
<td>HLTH287</td>
<td>Adult Health &amp; Development†</td>
<td>3</td>
</tr>
<tr>
<td>HLTH371</td>
<td>Communicating Health and Safety</td>
<td>3</td>
</tr>
<tr>
<td>HLTH377</td>
<td>Human Sexuality</td>
<td>3</td>
</tr>
<tr>
<td>HLTH38x</td>
<td>Peer Education +</td>
<td>3</td>
</tr>
</tbody>
</table>

Credits: 120
Advising

Advising is mandatory, please contact the Community Health Advisor, David H. Hyde. 2387 HLHP Building; 301-405-2523 or 301-405-2463; dhyde1@umd.edu

Student Societies and Professional Organizations

Eta Sigma Gamma. The Epsilon chapter was established at the University of Maryland in May 1969. This professional honorary organization for health educators was established to promote scholarship and community service for health majors at both the graduate and undergraduate levels. Students may apply after two consecutive semesters with a 2.75 cumulative grade point average.

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Romance Languages (ROML)

For information, see listing under School of Languages, Literatures, and Cultures elsewhere in Chapter 7.

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Department, Majors, and Programs

Russian Language and Culture (RUSS)

Russian Language and Culture (RUSS)

For information consult the School of Languages, Literatures, and Cultures elsewhere in chapter 7.

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Secondary Education, Upper Division Certificate

College of Education
2311 Benjamin Building, 301-405-6877
www.education.umd.edu/EDCI

The Certificate Program in Secondary Education requires completion of an academic major, including coursework specific to meet certification standards in the certificate area, and a bachelor's degree in an approved academic content area, plus the completion of a certificate program in secondary education to meet requirements in UM's approved program for MSDE certification. Selected coursework from the Minor in Secondary Education may be taken prior to admission to the Certificate Program option.

Detailed information about this program option is available at the College of Education website, www.education.umd.edu/EDCI/info/tcert.htm

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Science, Technology and Society Certificate

www.sts.umd.edu/certificate

The Science, Technology, and Society (STS) Undergraduate Certificate program offers students an excellent opportunity to advance their understanding of the complex relationships between science, technology, and society by concentrating their CORE and elective courses (like a college minor). STS courses have been carefully chosen to fit closely into CORE and major field requirements of most students. Therefore, almost all College Park undergraduates can fulfill the certificate requirements without taking additional courses by careful selection of the courses that fulfill their CORE and elective requirements. The STS Certificate program is comprised of 21 credits of coursework (including a capstone course), a monthly colloquium, and an internship opportunity. This mixture of learning experiences helps to cultivate an intellectual and personal forum in which students and faculty can work closely together. This program provides students with an interdisciplinary thematic link for their general education requirements, and it offers a chance for mentored research in areas of personal interest.

Certificate Requirements:
21 credits are necessary to complete the STS Certificate: 9 credits of Fundamental Courses and 12 credits of Elective Courses.

Fundamental Courses (9 credits):
- A natural science or technology course satisfying CORE or a major and approved by the program director
- An introductory history of science and technology course (see program website)
- The senior STS capstone course (UNIV 401)

Elective Courses (12 credits):
Students can choose from a list of over sixty approved courses representing a variety of topic areas relevant to the STS field from a host of disciplines (e.g., AMST, AREC, CPSP, ECON, GEMS, GVPT, HIST, HONR, MICB, NRSC, PHIL, SOCY, ZOOL). Over half of the electives also satisfy CORE Distributive Studies requirements. Two of the electives must be upper-level courses. (Please note: CORE Advanced Studies requires that two upper-level courses be taken outside the major after 56 credits. Upper-level STS courses satisfy this requirement. Check with your academic advisor in your major.) See program website for the complete list of electives.

Students must obtain advice and approval from the program director for their course choices. Students must maintain a minimum grade of C in each STS course. The STS program of study must include a minimum of 9 credits in upper division courses, 2 of which must be electives. It also may not exceed the following maximums: 9 credits of STS courses applied to the student’s major; 3 credits of Special Topics or Selected Topics courses applied to the STS certificate; 9 credits of approved courses taken outside UMCP. Only 6 credits from courses with the AREC, ECON and GVPT prefixes may be used to satisfy the STS Certificate requirements.

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SOCIOLOGY (SOCY)

College of Behavioral and Social Sciences
2108 Art/Sociology Building, 301-405-6389
www.bsos.umd.edu/socy

Faculty
Chair: S. Bianchi
Assistant Professors: L. DeRose, D. Kim, L. Mamo, S. Martin
Lecturers: L. Moghadam (Undergraduate Director), S. Steele
Professors Emeriti: R. Clignet, E. Dager, R. Henkel, R. Hirzel, J. Hunt, K. Kammeyer, B. Meeker

The Major

Sociology is the scientific study of society and its institutions, organizations, and groups. By observing the broad range of activities in society, and exploring topics such as social class, race, gender, deviance, family, religion, the work place, and demographic trends, sociologists provide important information and perspectives on our social order and the causes and impacts of social change. Sociology provides important information useful both to personal life and public policy decisions. Sociology is among the broadest of the social sciences and is characterized by considerable pluralism in theoretical and methodological approaches, substantive specializations, and in units of analysis.

Students major in Sociology for a variety of reasons. Some emphasize sociology's relevance to understanding a broad range of social issues that interest them out of intellectual curiosity, personal life relevance, or usefulness for ameliorative social change efforts. Other majors emphasize acquisition of sociological knowledge and skills useful in a variety of career paths where understanding societal problems and trends, group dynamics, and personnel issues are critical. For a small core of majors the purpose of the undergraduate program is preparation and training for admissions to graduate programs and eventual careers as sociologists in teaching and research and/or policy development. Majors may also use sociology as a basis for graduate study in related fields, including law, social work, public policy, and human resource management.

Program Objectives

The overall goals of the program are:

- To provide meaningful and challenging courses within the University CORE program
- To provide meaningful and challenging courses as electives for non-majors
- To provide a coherent program of courses for Sociology majors which enables majors to attain:
  - general sociological knowledge and understanding of our society;
  - sociological knowledge and skills relevant to a variety of career paths,
  - sociological knowledge and skills relevant to application to and success within competitive sociology graduate programs and careers; and
  - to provide a Sociology Honors component for selected students who have the capability and motivation to work at the most...
Program Learning Outcomes

Having completed the degree program, students should have acquired the following knowledge and skills:

1. To be able to think critically and assess information about society using sociological concepts and a social science mode of argument.
2. To be confident in one's understanding of key questions addressed by the discipline and the ways in which social structure and social interaction shape human behavior. To feel competent to use research tools to conduct and assess research.
3. To understand the role of theory in the construction of sociological inquiry; for majors this entails knowing the central ideas of major classical and contemporary theorists.
4. To understand and be able to apply statistical concepts.
5. To understand the social science model of evidence and argument; for majors this entails familiarity with basic social science statistical techniques, basic methods of data analysis, basic methods of organizing and presenting information, and the ability to carry out a small research project.

Requirements for the Major

As part of the 120 credits and other requirements for a Bachelor of Arts degree, sociology majors must complete a minimum of 38 credits in Sociology and 12 credits in supporting courses outside of Sociology. All these credits must be completed with a minimum grade of 'C' or better in each course. The 38 credits in Sociology must include the following:

<table>
<thead>
<tr>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Required Courses</td>
</tr>
<tr>
<td>Basic Requirements</td>
</tr>
<tr>
<td>SOCY100 Introduction to Sociology</td>
</tr>
<tr>
<td>SOCY201 Introductory Statistics for Sociology</td>
</tr>
<tr>
<td>SOCY202 Introduction to Research Methods in Sociology</td>
</tr>
<tr>
<td>SOCY203 Sociological Theory</td>
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<tr>
<td>Breadth Requirement</td>
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<tr>
<td>one course from three of the following concentration areas:</td>
</tr>
<tr>
<td>Family and Demography:</td>
</tr>
<tr>
<td>SOCY410 Social Demography</td>
</tr>
<tr>
<td>SOCY443 The Family and Society</td>
</tr>
<tr>
<td>Organizations and Institutions:</td>
</tr>
<tr>
<td>SOCY431 Principles of Organizations</td>
</tr>
<tr>
<td>SOCY443 The Family and Society</td>
</tr>
<tr>
<td>Sociology of Work</td>
</tr>
<tr>
<td>SOCY464 Military Sociology</td>
</tr>
<tr>
<td>Social Psychology:</td>
</tr>
<tr>
<td>SOCY230 Sociological Social Psychology</td>
</tr>
<tr>
<td>SOCY430 Social Structure and Identity</td>
</tr>
</tbody>
</table>
Stratification and Inequality:

SOCY441 Social Stratification and Inequality

Depth Requirement 9

At least three courses (including one required) in any one of the following concentration areas:

Family and Demography:

SOCY410 Social Demography *(Required)*
SOCY411 Demographic Techniques
SOCY412 Family Demography
SOCY418* Research in Family and Demography
SOCY442 The Family and Social Class
SOCY443 The Family and Society
SOCY444 Sociology of Children

Organizations and Institutions:

SOCY431 Principles of Organizations *(Required)*
SOCY425 Gender Roles and Social Institutions
SOCY438* Research in Organizations & Institutions
SOCY443 The Family and Society
SOCY456 Sociology of Consumerism
SOCY460 Sociology of Work
SOCY462 Women in the Military
SOCY463 Sociology of Combat
SOCY464 Military Sociology
SOCY465 The Sociology of War
SOCY467 Sociology of Education

Social Psychology:

SOCY230 Sociological Social Psychology *(Required)*
SOCY402 Intermediate Procedures for Data Collection, OR
SOCY430 Social Structure and Identity
SOCY440 Sociology of the Self-Concept
SOCY447 Small Group Analysis
SOCY448* Research in Social Psychology
SOCY450 Measurement of Time, Work, and Leisure
SOCY463 Sociology of Combat

Stratification and Inequality:
SOCY441  Social Stratification and Inequality *(Required)*
SOCY325  The Sociology of Gender
SOCY421  Women and Men in the World System
SOCY422  Social Change in Latin America
SOCY424  Sociology of Race Relations
SOCY425  Gender Roles and Social Institutions
SOCY428*  Research in Inequality
SOCY442  The Family and Social Class
SOCY462  Women in the Military
SOCY467  Sociology of Education

**Methods Requirement**

An intermediate methods course or research course selected from a list maintained by the Sociology Undergraduate Advising Office

**Electives**

Elective course(s) in sociology sufficient to fill out the required minimum of 38 credits in sociology; may be selected from any of the sociology courses

**Supporting Courses**

- Two supporting courses from approved list
- Two supporting courses at the 400 level from approved list

*Special Topics courses, may be repeatable - see note below.*

Students should note the following in reference to Sociology requirements:

a) SOCY201 has a prerequisite of Math 111 or higher with a minimum grade of C;

b) some of the courses necessary to fulfill depth requirements and/or the methods/research course requirement may have prerequisites such as SOCY201, 202, and 203;

c) it is permissible to count one course as fulfilling more than one type of requirement, e.g. a course can be counted towards meeting a breadth requirement and a depth requirement, or a courses might be counted towards a depth requirement while simultaneously fulfilling the methods/research course requirement;

d) special topics courses (indicated with an * in the above lists) may be repeatable for credit if its content differs from when previously taken;

e) SOCY498 courses may be used to fulfill depth requirements for particular concentration areas when so designated by the Undergraduate Sociology Office; the Sociology Undergraduate Office maintains current lists of special topics
courses (SOCY498) that fulfill depth requirements; and

f) each course counted as meeting sociology or supporting course requirements
must be passed with a grade of C or better.

Advising

Regular advising is strongly recommended for all majors. Advising is particularly important for
those majors who are considering going on to graduate school. Majors are reminded of the
importance of taking the four basic required courses (SOCY 100, 201, 202, 203) as soon as
possible because these are prerequisites for some upper level work. Further information on
course work, internships, the department honors program, careers, and other topics may be
obtained from the Sociology Undergraduate Advisor, 2108 Art/Sociology Building, 301-405-
6389.

Internships

Although internships are not a requirement for a major, students may wish to consider the
internship program offered by the department or through the Experiential Learning Office
located in Hornbake Library. Majors may receive up to six credits in SOCY386 when an
internship/volunteer position is combined with an academic project. A prerequisite of 12 credit
hours in Sociology course work is required. Sociology internship credit does not count toward
meeting requirements for the major.

Honors Program

The Sociology Honors Program seeks to encourage and recognize superior scholarship by
providing an opportunity for interested, capable, and energetic undergraduate students to
engage in study in an area of the student's interest under the close supervision of a faculty
mentor. The honors program is based upon tutorial study and independent research.

Students who have an overall cumulative grade point average of at least 3.3, a cumulative
average of 3.5 in Sociology courses, and who have taken at least nine credits in Sociology may
apply. Transfer students with equivalent academic records at other accredited institutions are
also eligible. Admission to the program will be based upon academic performance and the
judgment of the Undergraduate Committee whether the applicant has sufficient maturity and
interest to complete successfully the requirements for graduation with Honors. Further
information on the honors program is available from the Sociology Undergraduate Office.

Student Societies and Professional Organizations

The Sociology Collective, open to all Sociology majors, is organized by a group of interested
undergraduates to fill student needs within the Sociology community. The Collective provides
information about topics of interest, including department activities, career planning, and
relevant changes within the university, and strives to enhance the sense of community within
the department. Representatives of the Collective participate in many faculty committees within
the department and thereby provide the undergraduate perspective on policy issues.

Alpha Kappa Delta is the National Honor Society for Sociology majors. Membership is based on
Sociology GPA (3.0 minimum) and overall GPA (3.0 minimum). Students may apply after they
have completed 18 hours of Sociology course work. This organization's activities focus on
providing tutoring services for undergraduates in core courses.

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Spanish Language and Literature (SPAN)

For information consult the School of Languages, Literatures, and Cultures elsewhere in chapter 7.

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Departments, Majors, and Programs

Spanish and Portuguese Languages and Literatures (SPAP)

Spanish and Portuguese Languages and Literatures (SPAP)

For more information, consult School of Languages, Literatures, and Cultures elsewhere in Chapter 7.

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Special Education (EDSP)

College of Education
1308 Benjamin, 301-405-6515/4
www.education.umd.edu/EDSP/
edspgrad@umd.edu
Chair: P. Burke (Prof & Chair)
Associate Professors: D. Cooper, F. Kohl, P. Maccini
Assistant Professors: W. Drakeford, R. Silverman, J. Staples
Professors Emeriti: J. Hebeler

The Major

The Special Education Department offers an innovative and rigorous combined undergraduate/master's program which prepares teachers of infants, children, or young adults with disabilities. This program has been nationally recognized for many of its exemplary features. It is a five-year (10-semester, 150-credit hour) professional certification program which graduates students with a Bachelor of Science and Master of Education degree in special education, which leads to special education teacher certification in the State of Maryland and certification reciprocity in other states throughout the country. Students considering a special education major enroll in courses which meet university and college requirements while they take supporting course work designed to provide an understanding of typical human development and basic psychological and sociological principles of human behavior. Special Education students receive specialized training in the following areas: language development; motor development; social-emotional development; typical human behavior; social and educational needs of individuals with disabilities; diagnostic and educational assessment procedures; instructional procedures and materials; curriculum development; classroom and behavior management; effective communication with the parents and families of children with disabilities; community resource planning; and local, state, and federal laws concerning children and youth with disabilities. Graduates of the program are expected to master specific skills in each of these areas.

Program Learning Outcomes

1. **Content Knowledge:** Special education teacher candidates have in-depth knowledge of the subject matter that they teach as described in professional (Council for Exceptional Children -- CEC), state (MSDE), and institutional standards. They demonstrate their knowledge through inquiry, critical analysis, and synthesis of the subject.

2. **Pedagogical and Professional Knowledge, Skills, and Dispositions:** Special education teacher candidates can effectively plan classroom-based instruction or activities for their roles as special educators. Candidates' knowledge, skills, and dispositions are applied effectively in practice.

3. **Effects on Student Learning:** Special education teacher candidates accurately assess and analyze student learning, make appropriate adjustments to instruction, monitor student learning, and have a positive effect on learning for all students.

4. **Professional Dispositions:** Special education teacher candidates are able to work with students, families, and communities in ways that reflect the dispositions expected of professional educators as delineated in professional (CEC), state (MSDE), and institutional standards.

5. **Competency on the Maryland Teacher Technology Standards:** Special education teacher candidates demonstrate proficiency in each of the seven *Maryland Teacher Technology Standards.*
Academic Programs and Departmental Facilities

Combined Bachelor's/Master's Program

Qualified undergraduate students majoring in special education will be eligible for dual application of credit to both the bachelor's and master's degrees. A student desiring graduate credit should apply for admission to the Graduate School during the last semester of the third year. If admitted to the Graduate School, the student will take 12 credits (four courses) of specified course work during the fourth year of the undergraduate program to be applied simultaneously toward the credits required for the master's degree in special education at the University of Maryland. The selected courses may not include field practica or student teaching experiences. Students will be expected to fulfill supplemental requirements in the selected courses. To complete the master's degree, students must fulfill all Graduate School requirements for the degree, with the exception of the selected combined program courses, in the program's fifth year.

Admission to the Major

Prior to formal acceptance as a special education major, all students are required to enroll in a special education introductory course (EDSP 210) which provides a survey of the history and current issues in special education. Upon successful completion of the introductory course and 45 semester hours of requirements, students apply for formal admission to the professional program of the Department of Special Education by submitting an application with a statement of intent specifying their professional goals. To be accepted as a full special education major, students must fulfill the College of Education requirements for admission to Teacher Education, as well as the following departmental conditions:

1. Completion of course work indicated below:
   HIST156 or 157, STAT100, Lab Science, ENGL Literature, PSYC100, SOCY100 or 105, HESP202, MATH212, EDHD 411 or PSYC355, EDHD Elective (See Department for approved list.), EDSP 210.

2. Admission is competitive beyond the minimum 2.5 grade point average required for consideration.

3. Submission of an application together with a statement of intent specifying the applicant's professional goals.

4. Submission of three letters of recommendation.


Admittance will be based on the completion of the required courses, the grade point average, the applicant's experience with persons with disabilities, and the appropriateness and clarity of the professional goal statement. An appeals process has been established for students who do not meet the competitive GPA for admission, but who are applying in connection with special university programs including affirmative action and academic promise.

Requirements for the Major

Students interested in majoring in Special Education must consult a departmental advisor as early as possible after matriculation at the university since the curriculum requires an extensive and sequenced program of studies. Students accepted as Special Education majors take a two-semester sequence of foundation special education courses and practicum experiences during the third year (Semesters V and VI). These courses provide the student with a solid foundation in theory and practice related to the education of all children with disabilities across a wide range of ages.

Students work directly with children or youth with disabilities during each semester, leading up to student teaching during the last semester.

Credits

Required Courses

All preprofessional and professional course work must be completed with a grade of C or better prior to student teaching. CORE Liberal Arts and Science Studies Program Requirements include the following courses which are
departmental requirements: *(Consult with a departmental advisor with regard to USP requirements.)*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST156</td>
<td>History of the United States to 1865, OR</td>
<td>3</td>
</tr>
<tr>
<td>HIST157</td>
<td>History of the United States since 1865</td>
<td>3</td>
</tr>
<tr>
<td>STAT100</td>
<td>Elementary Statistics and Probability</td>
<td>3</td>
</tr>
<tr>
<td>SCI</td>
<td>Lab Science</td>
<td>4</td>
</tr>
<tr>
<td>ENGL</td>
<td>ENGL Literature</td>
<td>3</td>
</tr>
<tr>
<td>PSYC 100</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOCY 100</td>
<td>Introduction to Sociology, OR</td>
<td>3</td>
</tr>
<tr>
<td>SOCY105</td>
<td>Introduction to Contemporary Social Problems</td>
<td>3</td>
</tr>
</tbody>
</table>

**Other Academic Support Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HESP202</td>
<td>Introduction to Hearing and Speech Sciences</td>
<td>3</td>
</tr>
<tr>
<td>MATH212</td>
<td>Elements of Numbers and Operations</td>
<td>3</td>
</tr>
<tr>
<td>EDHD411</td>
<td>Child Growth and Development, OR</td>
<td>3</td>
</tr>
<tr>
<td>PSYC355</td>
<td>Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td>EDHD</td>
<td>EDHD Elective (See Department for approved list.)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Professional Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSP210</td>
<td>Introduction to Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDCI385</td>
<td>Computers for Teachers</td>
<td>3</td>
</tr>
<tr>
<td>EDHD425</td>
<td>Language Development and Reading Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>EDPL301</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR403</td>
<td>Instruction of Students with Physical Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>EDSR406</td>
<td>Field Placement I: Special Education</td>
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<tr>
<td>EDSR407</td>
<td>Field Placement II: Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR413</td>
<td>Behavior and Classroom Management in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR415</td>
<td>Assessment in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR416</td>
<td>Reading and Writing Instruction in Special Education I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialty Area Requirements**

*The Early Childhood Special Education Option*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EDSR400</td>
<td>Functional Assessment &amp; Instruction in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR484</td>
<td>Reading and Writing Instruction in Special Education II</td>
<td>3</td>
</tr>
<tr>
<td>EDSR420</td>
<td>Characteristics of Infants &amp; Young Children: Early Childhood Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR421</td>
<td>Field Placement III: Early Childhood Special Education</td>
<td>4</td>
</tr>
<tr>
<td>EDSR423</td>
<td>Assessment in Early Childhood Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR430</td>
<td>Early Intervention: Early Childhood Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR424</td>
<td>Field Placement IV: Early Childhood Special Education</td>
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</tr>
<tr>
<td>ELECT</td>
<td>Major Elective (see Department for approved list)</td>
<td>3</td>
</tr>
<tr>
<td>EDSR422</td>
<td>Curriculum and Instruction: Early Childhood Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR487</td>
<td>Family Partnerships in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR404</td>
<td>Education of Students with Autism</td>
<td>3</td>
</tr>
<tr>
<td>EDSR431</td>
<td>Field Placement V: Early Childhood Special Education</td>
<td>4</td>
</tr>
<tr>
<td>EDSR490</td>
<td>Capstone Seminar in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR494</td>
<td>Internship: Early Childhood Special Education</td>
<td>11</td>
</tr>
</tbody>
</table>

*The Elementary Special Education Option*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSR400</td>
<td>Functional Assessment &amp; Instruction in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR484</td>
<td>Reading and Writing Instruction in Special Education II</td>
<td>3</td>
</tr>
<tr>
<td>EDSR451</td>
<td>Curriculum &amp; Instruction: Elementary Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDSR452</td>
<td>Field Placement III: Elementary Special Education</td>
<td>4</td>
</tr>
</tbody>
</table>
Requirements for the Minor

The minor in Special Education provides opportunities for undergraduate students to enroll in a sequence of education courses to determine if working with students with disabilities is a viable career option. For students interested in pursuing this career option, a one-year M.Ed. program, leading to certification as a special educator, is also available.

- 18 credits are required for this minor
- Two courses (6 credits) may overlap with a student’s major
- Students pursuing the minor must select one of three age-based specializations: Early Childhood, Elementary, or Secondary Special Education.
- The minor incorporates coursework to meet the *Maryland State Department of Education (MSDE)* reading requirements that are part of the special education teacher certification.
- A cumulative 2.5 GPA and junior status (60 credits) is required for enrollment in all professional education courses (i.e., all courses required for the minor except EDSP 210/470).
- All courses for the minor must be passed with a grade of "C" or better.
- No more than two courses (6 credits) may be taken at an institution other than the University of Maryland

Core Courses required for the Minor:

- EDSP210/470  Introduction to Special Education
- EDSP413  Behavior & Classroom Mgt. in Special Education
- EDSP415  Assessment in Special Education
- EDSP416  Reading & Writing Instruction in Special Education I

Additional Courses Required for Early Childhood Special Education:

- EDSP410  Community-Based Assessment & Curriculum in Special Education
- EDSP453  Methods & Models of Instruction: Elementary Special Education
- EDSP485  Assessment and Instruction in Mathematics in Special Education
- EDSP454  Field Placement IV: Elementary Special Education
- EDSP487  Family Partnerships in Special Education
- EDSP455  Assessment in Elementary Special Education
- EDSP486  Promoting Prosocial Behavior in Special Education
- EDSP456  Field Placement V: Elementary Special Education
- EDSP490  Capstone Seminar in Special Education
- EDSP495  Internship: Elementary Special Education

The Secondary/Middle Special Education Option

- EDSP400  Functional Assessment & Instruction in Special Education
- EDSP466  Issues and Models: Secondary/Middle Special Education
- EDHD426  Cognition and Motivation in Reading: Reading in Content Areas I
- EDSP434  Field Placement III: Secondary/Middle Special Education
- EDSP410  Community-Based Assessment & Curriculum in Special Education
- EDSP474  Assessment in Secondary/ Middle Special Education
- EDCI463  Reading in Secondary School
- EDSP485  Assessment and Instruction in Mathematics in Special Education
- EDSP435  Field Placement IV: Secondary/Middle Special Education
- EDSP477  Curriculum, Assessment, & Instruction in Secondary/Middle Special Education
- EDSP487  Family Partnerships in Special Education
- EDSP486  Promoting Prosocial Behavior in Special Education
- EDSP436  Field Placement V: Secondary/Middle Special Education
- EDSP490  Capstone Seminar in Special Education
- EDSP496  Internship: Secondary/Middle Special Education

EDSP410  Community-Based Assessment & Curriculum in Special Education  3
EDSP453  Methods & Models of Instruction: Elementary Special Education  3
EDSP485  Assessment and Instruction in Mathematics in Special Education  3
EDSP454  Field Placement IV: Elementary Special Education  4
EDSP487  Family Partnerships in Special Education  3
EDSP455  Assessment in Elementary Special Education  3
EDSP486  Promoting Prosocial Behavior in Special Education  3
EDSP456  Field Placement V: Elementary Special Education  4
EDSP490  Capstone Seminar in Special Education  3
EDSP495  Internship: Elementary Special Education  11
EDHD425  Language Development & Reading Acquisition
EDSP423  Assessment in Early Childhood Special Education

Additional Courses Required for Elementary Special Education:
EDHD425  Language Development & Reading Acquisition
EDSP485  Assessment & Instruction in Mathematics in Special Education

Additional Courses Required for Secondary Special Education:
EDHD426  Cognition & Motivation in Reading: Reading in Content Areas
EDSP485  Assessment & Instruction in Mathematics in Special Education

Minor and M.Ed. Teacher Certification Program

For students interested in pursuing special education teacher certification, a one year M.Ed. program is available after completing the 18-hour minor in special education and an undergraduate degree. To be admitted to this M.Ed. Special Education program, students must apply to the graduate school (www.gradschool.umd.edu) during their senior year and pass the Praxis I at scores established by the Maryland State Department of Education http://www.education.umd.edu/studentinfo/teacher_certification/praxis.html. All teacher candidates at the University of Maryland must pass Praxis I and Praxis II prior to student teaching.

Students seeking a minor in special education must first meet with the EDSP Teacher Preparation Coordinator. For further information or to declare a Minor in Special Education please contact Dr. Dawn Molloy, 1235 Benjamin Bldg, 301-405-6485 or dmolloy@umd.edu.

Advising

The Department of Special Education provides academic advisement through a faculty and a peer advisement program. Special Education majors are assigned a faculty advisor, who is carefully matched to the student’s area of interest. It is required that all students consult an advisor each semester. Students are urged to use the Special Education Advising Center, 1235 Benjamin Building. For additional information, please contact Dr. Dawn Molloy at 301-405-6485 or dmolloy@umd.edu.

Fieldwork Opportunities

Integrated field experiences are arranged for students throughout the professional portion of the program, years 3 through 5. Field experiences allow teacher candidates to apply concepts and techniques presented in university-based courses. For further information, please contact Lynn Brown, University-School Liaison, at 301-405-6468 or brownml@umd.edu.

Internships

The yearlong internship, which is the culminating experience in the teacher preparation program, takes place in a collaborating school (i.e., partner school, PDS -- Professional Development School).
**Student Societies and Professional Organizations**

The Department of Special Education encourages student participation in extracurricular activities within and outside of the University. Opportunities within the department include the Council for Exceptional Children. For more information, stop by the Special Education Advising Center, 1235 Benjamin Building.

**Scholarships and Financial Assistance**

The Special Education Endowed Fund in honor of Jean R. Hebeler is devoted to support for students preparing to work with individuals with disabilities. Awards are competitive. Applications are accepted in the spring semester for the following academic year.

In addition, the Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: [www.financialaid.umd.edu](http://www.financialaid.umd.edu).

**Awards and Recognition**

The Department of Special Education Student Service Award is presented annually to the graduating senior who has demonstrated outstanding leadership and service to the Special Education Department.
Speech Communication

The Department of Speech Communication is now the Department of Communication. See entry elsewhere in Chapter 7.

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Department, Majors, and Programs

Statistics

For information consult the entry under Mathematical Statistics Program in Chapter 7.

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THEATRE (THET)

College of Arts and Humanities
2806 Clarice Smith Performing Arts Center, 301-405-6676
www.theatre.umd.edu
thetinfo@umd.edu

Chair: D. Wagner
Professors: M. Hebert, F. Hildy, H. Huang, S. Reese
Associate Professors: D. Conway, H. Nathans, C. Schuler
Assistant Professors: H. Burgess, F. Carpenter, L. Felbain, M. Kachman, L. Smiley
Instructors: D. Kriebs
Professors Emeriti: P. Gillespie, R. Meersman, W. Patterson, R. Pugliese

The Major

Small classes, diversity, and a close-knit environment promote a strong sense of community within the Department of Theatre. An extensive production schedule offers students a myriad of opportunities to practice their craft. The Department is a supportive and stimulating environment that fosters creative development and spurs achievement. Our comprehensive curriculum embraces the liberal arts approach to theatre study and cultivates skills-discipline, creativity, self-confidence, and critical thinking-that are valuable in all career fields. Students gain a strong foundation in theatre arts and have the opportunity to tailor the degree to their strengths and interests. Our performance and design/production faculty members are active in their fields (members of Actors Equity and United Scenic Artists), providing students a vital link to the world of professional theatre. Our history/theory faculty members regularly publish and participate at national and international conferences. Situated in close proximity to the vibrant Washington/Baltimore theatre communities, students have ready access to the best of contemporary and classical productions at more than 80 professional theatres. Through professional affiliations with many of these theatre companies, students enjoy unique opportunities such as internships, workshops, partnership projects and blended productions. An audition, portfolio, or interview is not required for admission to the program. Courses offered by this Department may be found under the following acronym(s): THET, AASP, HONR, JAPN, JWST, WMST.

Academic Programs and Departmental Facilities

The Department of Theatre is housed in the Clarice Smith Performing Arts Center, a state-of-the-art performing arts "village" comprised of ten interconnected structures occupying 318,000 square feet and situated on a 17-acre site at the northwest end of the campus. The Center is designed to serve the theatre, music and dance programs of the University and also houses the Michelle Smith Performing Arts Library. With 30 classrooms, 50 practice and rehearsal rooms, and fully outfitted costume, electric, scenic production, paint and properties shops, the Center serves more than 5,000 students, 200 faculty and staff and numerous regional, national and international audiences and professionals. For further information visit the Theatre website at www.theatre.umd.edu/Facilities/

Placement in Courses

Many Theatre performance and production courses above the Freshman level require an audition and/or permission of the Department.

Requirements for the Major

Requirements for the College of Arts and Humanities include a minimum of 45 upper-level credits
and a foreign language requirement.

Students in the Theatre major prior to fall 2005 should consult the Department for prior curriculum requirements.

Major requirements include 55 credits of course work in Theatre - 40 credits in THET and 15 credits in Supporting Courses. Of the 55 credits, at least 27 credit hours must be upper level (300-400 series). No course with a grade less than "C" may be used to satisfy major or supporting area requirements. No course for the major may be taken Pass/Fail.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>THET112 Fundamentals of Performance</td>
<td>3</td>
</tr>
<tr>
<td>THET113 Fundamentals of Theatre History</td>
<td>3</td>
</tr>
<tr>
<td>THET114 Fundamentals of Theatre Craft</td>
<td>3</td>
</tr>
<tr>
<td>THET115 Fundamentals of Analysis</td>
<td>3</td>
</tr>
<tr>
<td>THET116 Fundamentals of Design</td>
<td>3</td>
</tr>
<tr>
<td>THET288 Fundamentals Project (1 credit)</td>
<td>1</td>
</tr>
<tr>
<td>THET479 Production Practicum (1 credit repeated three times)</td>
<td>3</td>
</tr>
</tbody>
</table>

*Fundamentals courses may be taken in any sequence

*Four out of the five fundamentals courses (THET 112-116) should be completed by the end of the second semester or 30 credits

*Students may register for Area Menu courses in the 3rd semester if 4 of the 5 fundamentals courses (THET 112-116) are completed

*THET 288 is taken in the 3rd or 4th semester

*Students are expected to complete all the fundamentals courses, THET 112-116 and THET 288, by the end of the 4th semester or 60 credits.

*THET 479 (3 - 1 credit courses for a total of 3 credit hours) cannot be taken until THET 114 is completed

*THET 479 must be completed in 3 different areas - costume, scenic, lighting and sound
Students are expected to complete one THET *479 course by the end of the 4th semester or 60 credits, and all 3 courses by the end of the 6th semester or 90 credits.

AREA MENU: 21

Students must take courses from each Area as delineated below. Students may enter the Area Menu in the third semester, after completing the appropriate prerequisites.

Performance Area: 6

Courses marked with an "**" require an audition. Students may only audition twice for each course requiring an audition for enrollment.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THET210</td>
<td>Movement for Actors</td>
<td>3</td>
</tr>
<tr>
<td>THET220</td>
<td>Acting: Foundations</td>
<td>3</td>
</tr>
<tr>
<td>THET310</td>
<td>Voice for the Actor I*</td>
<td>3</td>
</tr>
<tr>
<td>THET324</td>
<td>Acting: Character Development*</td>
<td>3</td>
</tr>
<tr>
<td>THET325</td>
<td>Acting: The Actor's Process Part I*</td>
<td>3</td>
</tr>
<tr>
<td>THET330</td>
<td>Play Directing I</td>
<td>3</td>
</tr>
<tr>
<td>THET411</td>
<td>Voice for the Actor II*</td>
<td>3</td>
</tr>
<tr>
<td>THET420</td>
<td>Acting IV: Language and the Actor*</td>
<td>3</td>
</tr>
<tr>
<td>THET424</td>
<td>Movement II: Advanced Studies in Movement for the Actor</td>
<td>3</td>
</tr>
<tr>
<td>THET425</td>
<td>Acting: The Actor's Process Part II*</td>
<td>3</td>
</tr>
<tr>
<td>THET430</td>
<td>Play Directing II</td>
<td>3</td>
</tr>
<tr>
<td>THET451</td>
<td>Musical Theatre Workshop I*</td>
<td>3</td>
</tr>
<tr>
<td>THET452</td>
<td>Musical Theatre Workshop II*</td>
<td>3</td>
</tr>
</tbody>
</table>

Design/Production Area: 6

Some courses require departmental or instructor approval.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>THET273</td>
<td>Theatre Graphics I</td>
<td>3</td>
</tr>
<tr>
<td>THET282</td>
<td>Stage Makeup</td>
<td>3</td>
</tr>
<tr>
<td>THET284</td>
<td>Stage Costume Construction I</td>
<td>3</td>
</tr>
<tr>
<td>THET371</td>
<td>Scenic Design I</td>
<td>3</td>
</tr>
<tr>
<td>THET372</td>
<td>Stage Property Design</td>
<td>3</td>
</tr>
<tr>
<td>THET373</td>
<td>Rendering for the Theatre I</td>
<td>3</td>
</tr>
<tr>
<td>THET377</td>
<td>Lighting Design I</td>
<td>3</td>
</tr>
<tr>
<td>THET380</td>
<td>Sound Design</td>
<td>3</td>
</tr>
<tr>
<td>THET383</td>
<td>Costume Design I</td>
<td>3</td>
</tr>
</tbody>
</table>
THET384  Stage Costume Construction II  3
THET457  Advanced Lighting Technology  3
THET465  History of Fashion for the Theatre  3
THET470  Advanced Stage Craft  3
THET471  Design Studio in Scenery  3
THER472  Scene Painting  3
THET473  Rendering for the Theatre II  3
THET474  Stage Management  3
THET475  History of Art, Architecture, and Décor for the Theatre  3
THET477  Design Studio in Lighting  3
THET481  Theatre Graphics II  3
THET482  Scene Painting II  3
THET483  Design Studio Costume  3

**History/Theory Area:**

*6 credits must be at the 400 level*

THET290  American Theatre 1750 to 1890  3
THET291  American Theatre 1890-Present  3
THET293  Black Theatre and Performance I  3
THET294  Black Theatre and Performance II  3
THET350  History of American Musical Theatre and Popular Culture  3
THET388  Special Topics in Performance Studies  3
THET488  Special Topics in Theatre History Before 1800  3
THET489  Special Topics in Theatre History from 1800 to Present  3

*All seminars offered at the 400/600 level require undergraduate students to obtain permission from the instructor and to have completed either THET 488 or 489. This includes: THET408/608, THET410/610, THET486/686, THET487/608, THET498/698.*

**SUPPORTING COURSES:**

Supporting course credits may come from the Performance, Design/Production, or History/Theory Area Menus OR from any of courses listed in the Supporting Courses Menu OR any combination of the four menus. Students may also petition to their advisor for other suitable courses to be accepted, conditional on course work relating to their area of focus. For course prerequisites - Contact the Department that is offering the course or check
Other Requirements for the Major

As the Area and Supporting Course Menus do not require specific course choices, students may select courses according to their interests and abilities. In consultation with their advisor, students may choose to tailor their degree and create a focus in a specific area of interest to prepare them for the profession or entrance to graduate school.

Advising

The College of Arts and Humanities has a dual advising system where students meet with college advisors to discuss their general education requirements and departmental advisors to discuss the major requirements. The Department of Theatre requires mandatory advising each semester to keep in touch with our student base and assist majors and double majors with curricular and co-curricular choices. Advising procedures and instructions to sign up for an advising appointment can be found on the Theater website at www.theatre.umd.edu/Undergraduate/.

Scholarships and Financial Assistance

Scholarships and financial assistance may be awarded to prospective and enrolled students through a number of Creative and Performing Arts (CAPA) Scholarships, Theatre Patrons Association Scholarships and other departmental scholarships. For further information visit the Theatre website at www.theatre.umd.edu/Undergraduate.

The Office of Student Financial Aid (OSFA) administers all types of federal, state and institutional financial assistance programs and, in cooperation with other university offices, participates in the awarding of scholarships to deserving students. For information, visit: www.financialaid.umd.edu.

Awards and Recognition

At the spring Theatre commencement ceremony, the Charles B. Hale Award is presented to the two members of the senior class who have done the most for the advancement of dramatic art while undergraduates at the University of Maryland.

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Women's Studies (WMST)

**College of Arts and Humanities**
2101 Woods Hall, 301-405-6877
www.womensstudies.umd.edu
womensstudies@umd.edu
Chair: B. Dill (Prof & Chair)
Professors: A. Bolles, C. Moses, D. Rosenfelt, R. Zambrana
Associate Professors: E. Barkley Brown, S. Kim, K. King
Assistant Professors: M. Rowley
Affiliate Professors: M. Beasley (Journalism), S. Bianchi (Sociology), J. Chernela (Anthropology), T. Coletti (English), M. Collins (Comparative Literature), P. Collins (Sociology), S. Cypess (Spanish & Portuguese), J. Donawerth (English), R. Fassinger (Counseling and Personnel Services), E. Frederiksen (Germanic Studies), J. Fuegi (Comparative Literature & Culture), S. Greer (Chemistry and Biochemistry), G. Gullickson (History), J. Hallett (Classics), L. Kauffman (English), S. Leonardi (English), S. Michel (History), C. Mossman (French & Italian), C. Mossman (French & Italian), R. Oster (Germanic Studies), C. Peterson (English), H. Presser (Sociology), E. Scholnick (Psychology), M. Segal (Sociology), M. Smith (English), L. Steiner (Journalism), N. Struna (American Studies), E. Toth (Communication), M. Vaughan (History), M. Vaughan (History), M. Washington (English), B. Weinstein (History)
Affiliate Associate Professors: L. Aldoory (Communication), S. Desai (Sociology), L. Doherty (Classics), J. Freidenberg (Anthropology), S. Harley (African American Studies), H. Kerkham (History), L. Leslie (Family Studies), J. Letzter (Germanic Studies), J. Lin (Ed. Policy & Leadership), M. Lindemann (English), J. Liu (Asian & East European), S. Logan (English), C. Lyons (History), M. Mayo (History), M. Milkie (Sociology), R. Muncy (History), Z. Nunes (English), K. O'Brien (Psychology), V. Orlando (French & Italian), M. Paolisso (Anthropology), S. Parks (American Studies), S. Parry-Giles (Communication), P. Peres (Spanish & Portuguese), S. Ray (English), A. Rodriguez (Spanish & Portuguese), L. Rosenthal (English), C. Schuler (Theatre), M. Sies (American Studies), G. Sorenson (Aff Res Assoc Prof), E. Stehle (Classics), G. Strauch (Germanic Studies), M. Tonn (Communication), F. Wilson (African American Studies), M. Zilfi (History)
Affiliate Assistant Professors: F. Carpenter (Theatre), M. Chico (English), L. DeRose (Sociology), C. Eades (French & Italian), S. Jelen (English), G. Jones (Asian and East European), L. Mamo (Sociology), E. Marshall (Curriculum & Instruction), A. Nieves (Historic Preservation), R. Ontiveros (English), J. Schultz (Kinesiology), P. Williams-Forson (American Studies)
Professors Emeriti: E. Beck (Prof Emerita)
Visiting Faculty: A. Kimmich (Visit Asst Prof)

**The Major**

The Women's Studies major offers students a coherent but flexible program of study examining scholarship and theory on the history, status, contributions, and experiences of women in diverse cultural communities, and on the significance of gender as a social construct and as an analytical category. The B.A degree prepares students for positions in a wide range of fields, for example in government and in policy, research and service organizations that focus on women's issues. Courses offered by this department may be found under the following acronym: WMST.

**Requirements for the Major**

Students will earn a total of 39-42 credit hours, distributed as indicated below. Drawing from approximately fifty courses, many of which are cross-listed with other academic units, students will have the opportunity to design an emphasis within the major relevant to their special interests. A number of courses may count in more than one category. At least 30 credits must be at or above the 300 level. No course with a grade less than C may be used to satisfy the major. Students will design their programs in consultation with a Women's Studies advisor.
### Foundation Courses (18 credit hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMST200</td>
<td>Introduction to Women's Studies: Women and Society, OR</td>
<td>3</td>
</tr>
<tr>
<td>WMST250</td>
<td>Introduction to Women's Studies: Women, Art &amp; Culture</td>
<td>3</td>
</tr>
<tr>
<td>WMST300</td>
<td>Feminist Reconceptualizations</td>
<td>3</td>
</tr>
<tr>
<td>WMST350</td>
<td>Feminist Education Practicum and Analysis, OR</td>
<td>6</td>
</tr>
<tr>
<td>WMST380</td>
<td>Women's Studies Field Work and Analysis</td>
<td>6</td>
</tr>
<tr>
<td>WMST400</td>
<td>Theories of Feminism</td>
<td>3</td>
</tr>
<tr>
<td>WMST488</td>
<td>Senior Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

### Distributive Courses

**Area 1: Arts and Literature (3 credit hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMST241</td>
<td>Women Writers of French Expression in Translation (X-listed as FREN241)</td>
<td>3</td>
</tr>
<tr>
<td>WMST250</td>
<td>Introduction to Women's Studies: Women, Art, and Culture</td>
<td>3</td>
</tr>
<tr>
<td>WMST255</td>
<td>Introduction to Literature by Women (X-listed as ENGL255)</td>
<td>3</td>
</tr>
<tr>
<td>WMST275</td>
<td>World Literature by Women (X-listed as CMLT 275)</td>
<td>3</td>
</tr>
<tr>
<td>WMST281</td>
<td>Women in German Literature and Society (X-listed as GERM281)</td>
<td>3</td>
</tr>
<tr>
<td>WMST348</td>
<td>Literary Works by Women (X-listed as ENGL348)</td>
<td>3</td>
</tr>
<tr>
<td>WMST408</td>
<td>Special Topics in Literature by Women before 1800 (X-listed as ENGL 408)</td>
<td>3</td>
</tr>
<tr>
<td>WMST444</td>
<td>Feminist Critical Theory (X-listed as ENGL 444)</td>
<td>3</td>
</tr>
<tr>
<td>WMST448</td>
<td>Special Topics in Literature by Women of Color* (X-listed as ENGL448)</td>
<td>3</td>
</tr>
<tr>
<td>WMST458</td>
<td>Special Topics in Literature by Women after 1800 (X-listed as ENGL458)</td>
<td>3</td>
</tr>
<tr>
<td>WMST466</td>
<td>Feminist Perspective on Women in Art (X-listed as ARTH466)</td>
<td>3</td>
</tr>
<tr>
<td>WMST468</td>
<td>Feminist Cultural Studies</td>
<td>3</td>
</tr>
<tr>
<td>WMST481</td>
<td>Femmes Fatales and the Representation of Violence in Literature (X-listed as FREN481)</td>
<td>3</td>
</tr>
<tr>
<td>WMST496</td>
<td>African -American Women Filmmakers* (X-listed as THET496)</td>
<td>3</td>
</tr>
<tr>
<td>FREN482</td>
<td>Gender and Ethnicity in Modern French Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

**Area II: Historical Perspectives (3 credit hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMST210</td>
<td>Women in America to 1880 (X-listed as HIST 210)</td>
<td>3</td>
</tr>
<tr>
<td>WMST211</td>
<td>Women in America Since 1880 (X-listed as HIST 211)</td>
<td>3</td>
</tr>
<tr>
<td>WMST212</td>
<td>Women in Western Europe, 1750-present (X-listed as HIST212)</td>
<td>3</td>
</tr>
<tr>
<td>WMST320</td>
<td>Women in Classical Antiquity (X-listed as CLAS 320)</td>
<td>3</td>
</tr>
<tr>
<td>WMST453</td>
<td>Victorian Women in England, France, and the United States (X-listed as HIST 493)</td>
<td>3</td>
</tr>
<tr>
<td>WMST454</td>
<td>Women in Africa* (X-listed as HIST 494)</td>
<td>3</td>
</tr>
<tr>
<td>WMST455</td>
<td>Women in Medieval Culture and Society (X-listed as HIST495)</td>
<td>3</td>
</tr>
<tr>
<td>WMST456</td>
<td>Women in the Middle East*</td>
<td>3</td>
</tr>
<tr>
<td>WMST457</td>
<td>Changing Perceptions of Gender in the US: 1880-1935 (X-listed as HIST 433)</td>
<td>3</td>
</tr>
<tr>
<td>AASP498W</td>
<td>Black Women in United States History*</td>
<td>3</td>
</tr>
<tr>
<td>AMST418J</td>
<td>Women and Family in American Life</td>
<td>3</td>
</tr>
<tr>
<td>HIST309</td>
<td>Proseminar in Historical Writing: Women's History</td>
<td>3</td>
</tr>
</tbody>
</table>

**Area III: Social and Natural Sciences (3 credit hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMST200</td>
<td>Introduction to Women's Studies: Women and Society</td>
<td>3</td>
</tr>
<tr>
<td>WMST313</td>
<td>Women and Science (X-listed as BSCI 313)</td>
<td>3</td>
</tr>
<tr>
<td>WMST324</td>
<td>Communication and Gender (x-listed as COMM 324)</td>
<td>3</td>
</tr>
<tr>
<td>WMST325</td>
<td>Sociology of Gender (X-listed as SOCY 325)</td>
<td>3</td>
</tr>
<tr>
<td>WMST326</td>
<td>Biology of Reproduction (X-listed as BSCI 342)</td>
<td>3</td>
</tr>
<tr>
<td>WMST336</td>
<td>Psychology of Women (X-listed as PSYC 366)</td>
<td>3</td>
</tr>
<tr>
<td>WMST360</td>
<td>Caribbean Women*</td>
<td>3</td>
</tr>
<tr>
<td>WMST410</td>
<td>Women in the African Diaspora*</td>
<td>3</td>
</tr>
<tr>
<td>WMST420</td>
<td>Asian-American Women*</td>
<td>3</td>
</tr>
</tbody>
</table>
Requirements for the Minor

Joint Minor in Black Women's Studies

College of Arts and Humanities
2101 Woods Hall, 301-405-6877
www.umd.edu/wmst

College of Behavioral and Social Sciences
2169 Lefrak Hall
www.bsos.umd.edu/aasp

See African American Studies Department or Women's Studies Department for faculty roster.

The joint minor in Black Women's Studies focuses on the lives and experiences of women of Africa and the African Diaspora. As a specialty in the fields of Women's Studies and African American Studies, it will provide students with tools for understanding the social and cultural contexts in which race, gender, class, sexuality, ethnicity, nation and other dimensions of difference intersect to influence the lives and experiences of Black women.

Fifteen (15) credits of coursework are required, distributed below. A number of courses may count in more than one category. No course with a grade less than C may be used to satisfy the minor. Students will design their program in consultation with the Women's Studies or African American Studies advisor. No more then two courses may count toward a major in African American Studies or Women's Studies.

**Foundation courses (6 credits)**
WMST263/AASP203 Introduction to Black Women's Studies or WMST265/AASP213 Constructions of Manhood and Womanhood in the Black Community
AASP313/WMST314 Black Women in U.S. History

**Distributive Requirements (9 credits)**

**Area I - Comparative or Non-US Course - indicated by a * below (3 credits)**

+ WMST425 Gender Roles and Social Institutions 3
+ WMST430 Gender Issues in Families (X-listed as FMST 430) 3
+ WMST436 Legal Status of Women (X-listed as GVPT 436) 3
+ WMST452 Women and the Media (X-listed as JOUR 452) 3
+ WMST471 Women's Health (X-listed as HLTH 471) 3
+ WMST493 Jewish Women in International Perspective* 3
+ WMST494 Lesbian Communities and Difference* 3
+ AASP498F Special Topics in Black Culture: Women and Work* 3
+ CCJS498 Special Topics in Criminology and Criminal Justice: Women and Crime 3
+ SOCY498W Special Topics in Sociology: Women in the Military 3

*Fulfills Women's Studies Multi-Cultural Requirement
Area II - Humanities (3 credits)

WMST263/AASP203 Introduction to Black Women's Studies
THET240 African Americans in Film and Theater
*ENGL362 Caribbean Literature in English
*FREN478B Themes and Movements of French Literature in Translation: Francophone
Women Writers

Area III - Social Sciences (3 credits)

WMST265/AASP213 Constructions of Manhood and Womanhood in the Black Community
HIST319 Women and the Civil Rights Movement
*WMST360 Caribbean Women
*WMST410 Women of the African Diaspora
WMST488 Senior Seminar: Black Women in the Public Eye
AASP493 Feminist and Nationalist Thought in the Black Community
WMST498 Black Feminist Thought WMST498 Womanisms and Feminisms: Theories and Methods
AASP483 Gender, Sexuality and the Black Family

Certificate

The Women's Studies Certificate Program consists of an integrated, interdisciplinary curriculum on women that is designed to supplement a student's major. Any student in good standing may enroll in the certificate program by declaring her/his intention to the Women's Studies office. To qualify for a certificate in Women's Studies, a student will be required to earn 21 credits in Women's Studies courses, nine of which must be at the 300/400 level. See certificate requirements in Chapter 7 under "Other for Credit Programs."

Advising

Advising is mandatory for all majors each semester.

Internships

As part of the major, students are required to complete an internship in WMST380. Located near Washington, DC., students seek internship opportunities in local, state and federal governments, non-profit organizations, policy and research institutions as well as agencies committed to social change. Student internship sites have included: League of Women Voters of Maryland, National Organization for Women, Washington Jewish Women's Project, Institute for Women's Policy Research, Asian Pacific Islander Domestic Violence Resource Project, State of Maryland Lt. Governor's Office, D.C. Rape Crisis Center and the National Women's Studies Association.

Honors Program

The Honors Program is designed to give students the opportunity to pursue rigorous interdisciplinary research and writing under the close supervision and mentorship of a Women's Studies faculty member. Students can be expected to gain a deeper understanding of the field and the critical thinking and writing skills to excel in graduate or professional school or in management level positions in the professional workforce.

Awards and Recognition

Women's Studies annually recognizes students for outstanding academic achievement and contributions to improving the lives of women and girls through community engagement.
Women's Studies Certificate

College of Arts and Humanities
2101 Woods Hall, 301-405-6877
www.womensstudies.umd.edu
womensstudies@umd.edu

See Women's Studies Department for faculty roster.

The Women's Studies Certificate Program consists of an integrated, interdisciplinary curriculum on women that is designed to supplement a student's major. Any student in good standing may enroll in the certificate program by declaring her/his intention to the Women's Studies Undergraduate Advisor. For additional information contact the Women's Studies office, 301-405-6827.

Requirements for Certificate

To qualify for a certificate in Women's Studies, a student will be required to earn 21 credits in Women's Studies courses, nine of which must be at the 300/400 level. No more than three credit hours of special topics courses may be counted toward the certificate. No more than nine credits which are applied toward a major may be included in the certificate program. No more than nine credit hours may be taken at institutions other than the University of Maryland. Each student must obtain a grade of C or better in each course that is to be counted toward the certificate. Of the 21 credits, courses must be distributed as follows:

1. Requirements for the Certificate

   Foundation Courses (9 credit hours)

   WMST200  Introduction to Women's Studies: Women and Society, OR
   WMST250  Introduction to Women's Studies: Women, Art & Culture
   WMST400  Theories of Feminism
   WMST488  Senior Seminar

2. Distributive Courses

   Area I: Arts and Literature (3 credit hours)

   WMST241  Women Writers of French Expression in Translation (X-listed as FREN241)
   WMST250  Introduction to Women's Studies: Women, Art, and Culture
   WMST255  Introduction to Literature by Women (X-listed as ENGL255)
   WMST275  World Literature by Women (X-listed as CMLT 275)
   WMST281  Women in German Literature and Society (X-listed as GERM281)
   WMST348  Literary Works by Women (x-listed as ENGL348)
   WMST408  Special Topics in Literature by Women before 1800 (X-listed as ENGL 408)
   WMST444  Feminist Critical Theory (X-listed as ENGL 444)
   WMST448  Special Topics in Literature by Women of Color* (X-listed as ENGL448)
   WMST458  Special Topics in Literature by Women after 1800 (X-listed as ENGL458)
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<tr>
<td>WMST466</td>
<td>Feminist Perspective on Women in Art (X-listed as ARTH466)</td>
</tr>
<tr>
<td>WMST468</td>
<td>Feminist Cultural Studies</td>
</tr>
<tr>
<td>WMST481</td>
<td>Femmes Fatales and the Representation of Violence in Literature (X-listed as FREN481)</td>
</tr>
<tr>
<td>WMST496</td>
<td>African-American Women Filmmakers* (X-listed as THET 496)</td>
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<tr>
<td>FREN482</td>
<td>Gender and Ethnicity in Modern French Literature</td>
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**Area II: Historical Perspectives (3 credit hours)**

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<tr>
<td>WMST210</td>
<td>Women in America to 1880 (X-listed as HIST 210)</td>
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<td>WMST211</td>
<td>Women in America Since 1880 (X-listed as HIST 211)</td>
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<tr>
<td>WMST212</td>
<td>Women in Western Europe, 1750-present (X-listed as HIST212)</td>
</tr>
<tr>
<td>WMST320</td>
<td>Women in Classical Antiquity (X-listed as CLAS 320)</td>
</tr>
<tr>
<td>WMST453</td>
<td>Victorian Women in England, France, and the United States (X-listed as HIST 493)</td>
</tr>
<tr>
<td>WMST454</td>
<td>Women in Africa* (X-listed as HIST 494)</td>
</tr>
<tr>
<td>WMST455</td>
<td>Women in Medieval Culture and Society (X-listed as HIST495)</td>
</tr>
<tr>
<td>WMST456</td>
<td>Women in the Middle East*</td>
</tr>
<tr>
<td>WMST457</td>
<td>Changing Perceptions of Gender in the US: 1880-1935 (X-listed as HIST 433)</td>
</tr>
<tr>
<td>AASP498W</td>
<td>Black Women in United States History*</td>
</tr>
<tr>
<td>AMST418J</td>
<td>Women and Family in American Life</td>
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<tr>
<td>HIST309</td>
<td>Proseminar in Historical Writing: Women's History</td>
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**Area III: Social and Natural Sciences (3 credit hours)**

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<tr>
<td>WMST200</td>
<td>Introduction to Women's Studies: Women and Society</td>
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<tr>
<td>WMST313</td>
<td>Women and Science (X-listed as BSCI 313)</td>
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<tr>
<td>WMST324</td>
<td>Communication and Gender (x-listed as COMM 324)</td>
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<tr>
<td>WMST325</td>
<td>Sociology of Gender (X-listed as SOCY 325)</td>
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<tr>
<td>WMST326</td>
<td>Biology of Reproduction (X-listed as BSCI 342)</td>
</tr>
<tr>
<td>WMST336</td>
<td>Psychology of Women (X-listed as PSYC 366)</td>
</tr>
<tr>
<td>WMST360</td>
<td>Caribbean Women*</td>
</tr>
<tr>
<td>WMST410</td>
<td>Women in the African Diaspora*</td>
</tr>
<tr>
<td>WMST420</td>
<td>Asian-American Women*</td>
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<tr>
<td>WMST425</td>
<td>Gender Roles and Social Institutions</td>
</tr>
<tr>
<td>WMST430</td>
<td>Gender Issues in Families (X-listed as FMST 430)</td>
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<tr>
<td>WMST436</td>
<td>Legal Status of Women (X-listed as GVPT 436)</td>
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<tr>
<td>WMST452</td>
<td>Women and the Media (X-listed as JOUR 452)</td>
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<tr>
<td>WMST471</td>
<td>Women's Health (X-listed as HLTH 471)</td>
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<tr>
<td>WMST493</td>
<td>Jewish Women in International Perspective*</td>
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<td>WMST494</td>
<td>Lesbian Communities and Difference*</td>
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<td>AASP498F</td>
<td>Special Topics in Black Culture: Women and Work*</td>
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<tr>
<td>CCJS498</td>
<td>Special Topics in Criminology and Criminal Justice: Women and Crime</td>
</tr>
<tr>
<td>SOCY498W</td>
<td>Special Topics in Sociology: Women in the Military</td>
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*Fulfills Women's Studies Multi-Cultural Requirement

3. Courses in Cultural Diversity (6 credit hours)
Students will select one course for a minimum of 3 credit hours. Approved courses are noted with an asterisk in section 2, above. Courses in this category may overlap with other requirements.

4. Remaining Courses
The remaining courses may be chosen from any of the three distributive areas or from among any of the WMST courses including WMST 298 or 498: Special Topics and WMST 499: Independent Study.

Advising
To obtain more information, contact the Undergraduate Advisor, 301-405-6827, or write to the Women's Studies Department, 2101 Woods Hall, University of Maryland, College Park, MD 20742
Course Code: WMST

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Departments, Majors, and Programs

Zoology

Departments in the College of Chemical and Life Sciences have been reorganized. Courses in zoology are now offered by the Department of Biology (see Chapter 7).

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program:  << List All Programs >>

Course Number: 

Search

List of All Academic Programs

AASP - African American Studies
AAST - Asian American Studies
AGNR - Agriculture and Natural Resources
AMSC - Applied Mathematics & Scientific Computation
AMST - American Studies
ANSC - Animal Science
ANTH - Anthropology
AOSC - Atmospheric and Oceanic Science
ARAB - Arabic
ARCH - Architecture
AREC - Agricultural and Resource Economics
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: AASP - African American Studies
Course Number: Search

Courses in "AASP-African American Studies"

AASP - African American Studies

AASP 100 Introduction to African American Studies (3) Significant aspects of the history of African Americans with particular emphasis on the evolution and development of black communities from slavery to the present. Interdisciplinary introduction to social, political, legal and economic roots of contemporary problems faced by blacks in the United States with applications to the lives of other racial and ethnic minorities in the Americas and in other societies.

AASP 101 Public Policy and the Black Community (3) Formerly AASP 300. The impact of public policies on the black community and the role of the policy process in affecting the social, economic and political well-being of minorities. Particular attention given to the post-1960 to present era.
AASP 200 African Civilization (3) A survey of African civilizations from 4500 B.C. to present. Analysis of
traditional social systems. Discussion of the impact of European colonization on these civilizations. Analysis of
the influence of traditional African social systems on modern African institutions as well as discussion of
contemporary processes of Africanization.

AASP 202 Black Culture in the United States (3) The course examines important aspects of African
American life and thought which are reflected in African American literature, drama, music and art. Beginning
with the cultural heritage of slavery, the course surveys the changing modes of black creative expression
from the 19th-century to the present.

AASP 297 Research Methods in African American Studies (3) Prerequisite: AASP100 or AASP202. For
AASP majors only. Not open to students who have completed AASP299R. Credit will be granted for only one
of the following: AASP297 or AASP299R. Formerly AASP 299R. Introduces African American Studies majors to
the basic research skills, methodologies, sources, and repositories for studying African Diaspora. Students will
be required to select a research topic, write a research proposal, develop an annotated bibliography, and in
the process will be prepared for completing their senior thesis or other significant writing projects necessary
to fulfill the requirements of the major.

AASP 298 Special Topics in African American Studies (3) Repeatable to 6 credits if content differs. An
introductory multi-disciplinary and inter-disciplinary educational experience to explore issues relevant to
black life, cultural experiences, and political, economic, and artistic development.

AASP 299 Selected Topics in African American Studies (1-3) Repeatable to 6 credits if content differs.
An introductory multi-disciplinary academic exploration of the cultural, political, and economic issues relevant
to Africans and African-Americans.

AASP 301 Applied Policy Analysis and the Black Community (3) Prerequisite: (AASP101 and ECON200)
or (AASP101 and ECON201). Recommended: One semester of statistics. Development and application of the
tools needed for examining the effectiveness of alternative policy options confronting minority communities.
Review policy research methods used in forming and evaluating policies. Examination of the policy process.

AASP 303 Computer Applications in African American Studies (3) Prerequisite: STAT100 or SOCY201
or MATH111 or equivalent. Introduction to statistics and database processing software used in model
estimation and simulation in policy analysis. Special emphasis on applications for applied research on policy
problems confronting minority communities.

AASP 305 Theoretical, Methodological and Policy Research Issues in African (3) American Studies
Prerequisites: AASP301 and (STAT100 or BMGT230 or PSYC200 or SOCY201 or ECON321 or equivalent
course with permission of department). Formerly AASP 401. Theories and concepts in the social and
behavioral sciences relating to problems in minority communities. Issues include validity and soundness of
theoretical arguments, epistemological questions of various methodologies and the relationship between
policy making and policy research.

AASP 310 African Slave Trade (3) Prerequisite: AASP100 or AASP202 or permission of department.
Formerly AASP 311. The relationship of the slave trade of Africans to the development of British capitalism
and its industrial revolution; and to the economic and social development of the Americas.

AASP 312 Social and Cultural Effects of Colonization and Racism (3) Prerequisite: AASP100 or
AASP202. A comparative approach to the study of the social and cultural effects of colonization and racism on
black people in Africa, Latin America and in the United States--community and family life, religion, economic
institutions, education and artistic expression.

AASP 313 Black Women in United States History (3) Sophomore standing. Also offered as WMST314.
Credit will be granted for only one of the following: AASP498W, AASP313, WMST314 or WMST498N. Formerly
AASP 498W. Black American women's history is examined from slavery to the present. The principal focus of
the readings discussions and student assignments will be based upon gaining a fuller understanding of the
effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters,
wives, workers and social change agents. A variety of primary source materials on black women's
experiences will be utilized.

AASP 314 The Civil Rights Movement (3) Prerequisite: AASP100 or HIST157. Survey of the twentieth
century civil rights movement from the desegregation of UM Law School through the National Black Political
Congress in Gary in 1972. Major themes include leadership, legal and constitutional challenges, non-violence,
Black Power, Pan-Africanism.

AASP 386 Experiential Learning (3-6) Prerequisite: Permission of department. Junior standing.

AASP 396 Independent Study Non-Thesis Option (3) Two hours of lecture and one hour of
discussion/recitation per week. Prerequisites: AASP297 (formerly:AASP299R), and AASP386. Senior standing.
For AASP majors only. Credit will be granted for only one of the following: AASP396 or AASP397. A research
seminar that allows African American Studies majors to complete an independent study research project in
lied of completing the AASP397: Senior Thesis. Students will examine various concepts of race, gender, labor and ethnicity in the seminar lecture component to be applied toward their specific research projects.

**AASP 397 Senior Thesis (3)** Prerequisite: Permission of department. Directed research in African American Studies resulting in the completion and defense of a senior thesis.

**AASP 398 Selected Topics in the African Diaspora (3)** Repeatable to 6 credits if content differs. Analysis of the historical experiences and cultures of Africans in the diaspora.

**AASP 400 Directed Readings in African American Studies (3)** Prerequisite: AASP100 or AASP202. The readings will be directed by the faculty of African American Studies. Topics to be covered will be chosen to meet the needs and interests of individual students.

**AASP 402 Classic Readings in African American Studies (3)** Prerequisite: AASP100 or AASP202. Classic readings of the social, economic and political status of blacks and other minorities in the United States and the Americas.

**AASP 411 Black Resistance Movements (3)** Prerequisite: AASP100. A comparative study of the black resistance movements in Africa and America; analysis of their interrelationships as well as their impact on contemporary pan-Africanism.

**AASP 441 Science, Technology, and the Black Community (3)** Prerequisite: AASP100 or AASP202 or HIST255 or permission of department. Scientific knowledge and skills in solving technological and social problems, particularly those faced by the black community. Examines the evolution and development of African and African American contributions to science. Surveys the impact of technological changes on minority communities.

**AASP 443 Blacks and the Law (3)** Prerequisite: AASP100 or AASP202 or HIST255 or permission of department. The relationship between black Americans and the law, particularly criminal law, criminal institutions and the criminal justice system. Examines historical changes in the legal status of blacks and changes in the causes of racial disparities in criminal involvement and punishments.

**AASP 468 Special Topics in Africa and the Americas (3)** Repeatable to 6 credits if content differs. Cultural, historical and artistic dimensions of the African experience in Africa and the Americas.

**AASP 478 Humanities Topics in African American Studies (3)** Repeatable to 6 credits if content differs. Advanced studies in the humanities, often requiring prerequisites, focusing on the literary, artistic and philosophical contributions of Africans and African Americans.

**AASP 483 Gender, Sexuality and the Black Family (3)** Prerequisite: AASP100. Credit will be granted for only one of the following: AASP483 or AASP498F. Formerly AASP 498F. Examining the historical, economic, social, and scholarly construction of African American family structures. The problematization of "Black matriarchy," hetero- and homosexuality, bi-racialism, and other efforts to "normalize" African Americans to conform to Eurocentric and religious concepts of family will be critically analysed.

**AASP 493 Feminist and Nationalist Thought in Black Communities (3)** Prerequisite: AASP100 or AASP101. Credit will be granted for only one of the following: AASP493 or AASP499W. Formerly AASP 499W. The historical and theoretical foundations of feminist and nationalist thought in Black Communities will be examined. Further, we will discover why feminist and nationalist thought has been routinely ignored or misrepresented as disparate, if not oppositional, themes in Black intellectual and political life.

**AASP 498 Special Topics in Black Culture (3)** Prerequisite: AASP100 or AASP202. Repeatable to 6 credits if content differs. Advanced study of the cultural and historical antecedents of contemporary African and African American society. Emphasis on the social, political, economic and behavioral factors affecting blacks and their communities. Topics vary.

**AASP 499 Advanced Topics in Public Policy and the Black Community (3)** Prerequisite: AASP301 or permission of department. Repeatable to 6 credits if content differs. Examination of specific areas of policy development and evaluation in black and other communities. Application of advanced tools of policy analysis, especially quantitative, statistical and micro-economic analysis.

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Chapter 8: Approved Courses

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Select Program: AAST - Asian American Studies

Course Number: ____________________________

Search

Courses in "AAST-Asian American Studies"

AAST - Asian American Studies

AAST 200 Introduction to Asian American Studies (3) The aggregate experience of Asian Pacific Americans, from developments in the countries of origin to their contemporary issues. The histories of Asian Pacific American groups as well as culture, politics, the media, and stereotypes viewed from an interdisciplinary perspective.

AAST 201 Asian American History (3) Introduction to the history of Asian Americans in the United States and the Americas and to the field of Asian American Studies, from an interdisciplinary perspective. Topics include theories of race and ethnicity; Asian migration and diaspora to the Americas; Asian American work and labor issues; gender, family, and communities; nationalism and nativism, and anti-Asian movements; Asian Americans, World War II, the Cold War, and the issues in the civil rights & post-civil rights era.
AAST 222 Immigration and Ethnicity in America (3) Recommended: AAST201. Also offered as HIST222. Credit will be granted for only one of the following: AAST222, AAST298A, HIST219L or HIST222. Formerly AAST 298A. The history of immigration and the development of diverse populations in the United States are examined. Topics include related political controversies, the social experiences of immigrants, ethnicity, generations, migration, inter-group relations, race and diversity in American culture.

AAST 233 Introduction to Asian American Literature (3) Also offered as ENGL233. Not open to students who have completed ENGL233, AAST298L. Credit will be granted for only one of the following: ENGL233, AAST233, or AAST298L. Formerly AAST 298L. A survey of Asian American literature with an emphasis on recurrent themes and historical context.

AAST 298 Special Topics in Asian American Studies (3) Repeatable to 6 credits if content differs. An introductory multidisciplinary and interdisciplinary educational experience to explore issues relevant to Asian American life, cultural experiences, and political, economic, and artistic development.

AAST 378 Experiential Learning (3) Prerequisite: AAST200; AAST201; permission of department. Field experience in professional organizations and appropriate private and governmental agencies serving the Asian American community.

AAST 384 Senior Seminar (3) Prerequisites: AAST200 or AAST201; and permission of department. Career and professional opportunities. Overview of and field work in professional organizations and appropriate private and governmental agencies serving the Asian American community.

AAST 388 Independent Research (1-3) Prerequisites: AAST200 or AAST201; and permission of department. Repeatable to 6 credits if content differs. Directed research in Asian American Studies resulting in the completion of a thesis.

AAST 398 Selected Topics in Asian American Studies (3) Repeatable to 6 credits if content differs. Study of a specific theme or issue involving the Asian America experience.

AAST 420 Asian American Women: The Social Construction of Gender (3) Also offered as WMST420. Not open to students who have completed WMST420. Credit will be granted for only one of the following: AAST420 or WMST420. Examines the intersection of gender, race and class as it relates to Asian American women in the United States; how institutionalized cultural and social statuses of gender, race, ethnicity and social class produce and reproduce inequality in the lives of Asian American women.

AAST 424 Sociology of Race Relations (3) Prerequisite: Six credits in sociology or permission of department. Also offered as SOCY424. Not open to students who have completed SOCY424. Credit will be granted for only one of the following: AAST424 or SOCY424. Analysis of race-related issues, with a primary focus on American society. The historical emergence, development, and institutionalization of racism; the impact of racism on its victims; and racially based conflict.

AAST 498 Advanced Topics in Asian American Studies (3) Repeatable to 6 credits if content differs. Advanced study of the cultural and historical antecedents of contemporary Asian American society. Emphasis on the social, political, economic, and behavioral factors affecting Asian Americans and their communities.

AAST 499 Senior Thesis (3) Prerequisite: AAST200; AAST201; permission of department. For AAST majors only. Repeatable to 6 credits if content differs. Under the supervision of faculty, research regarding a specific topic of the Asian American experience will be completed.

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Use the search box below to view the approved courses.

Select Program: AGNR - Agriculture and Natural Resources

Course Number: Search

Courses in "AGNR-Agriculture and Natural Resources"

AGNR - Agriculture and Natural Resources

AGNR 270 Technology Training Seminar (2-3) Two hours of discussion/recitation per week. For AGNR major only or by permission of department. Also offered as BSCI279. Credit will be granted for only one of the following: AGNR270 or BSCI279. A hands-on training seminar about pedagogical applications of information technology and mastery of several technical skills. Special emphasis is placed on gainfully understanding technological issues such as copyright and intellectual property, accessibility, and usability.

AGNR 302 Introduction to Agricultural Education (2) Formerly AGRI 302. An overview of the job of the teacher of agriculture; examination of agricultural education programs for youth and adults.
AGNR 311 Teaching Secondary Vocational Agriculture (3) Formerly AGRI 311. A comprehensive course in the work of high school departments of vocational agriculture. It emphasizes particularly placement, supervised farming programs, the organization and administration of future farmer activities, and objectives and methods in all-day instruction.

AGNR 313 Student Teaching (5) Prerequisite: Satisfactory academic average and permission of department. Formerly AGRI 313. Full-time student teaching in an off-campus student teaching center under an approved supervising teacher of agriculture, participating experience in all aspects of the work of a teacher of agriculture.

AGNR 315 Student Teaching (1-4) Prerequisite: Satisfactory academic average and permission of department. Formerly AGRI 315. Full-time observation and participation in work of teacher of agriculture in off-campus student teaching center. Provides students opportunity to gain experience in the summer program of work, to participate in opening of school activities, and to gain other experience needed by teachers.

AGNR 323 Developing Youth Programs (3) Formerly AGRI 323. Concepts involved in planning and executing nonformal educational programs developed to meet the needs of youth. Emphasize the identification of opportunities; needs, and problems of youth in all socioeconomic levels; analysis of methods of working with youth groups and developing volunteer staff.

AGNR 333 Agriculture's Progression toward Industrialization (3) Junior standing. A survey reading course. Plots the global progression of agriculture toward industrialization and conflicts along the way. Reviews major trends, highlights contrasting perspectives, and reviews contemporary issues in agriculture and agricultural development.

AGNR 386 Experiential Learning (3-6) Prerequisite: Permission of department. Formerly AGRI 386.

AGNR 388 Honors Thesis Research (3-6) Prerequisite: Admission to AGNR Honors Program. Repeatable to 6 credits if content differs. Formerly AGRI 388. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

AGNR 400 International Agricultural Extension and Development (3) Formerly AGRI 400. Examination of the social and ethical issues that shape extension's role in the agriculture sector of countries worldwide and that determine its contribution to international development. Review of a wide range of literature from scholars, governments, and international organizations.

AGNR 401 Agricultural Support Systems in Developing Countries (3) Formerly AGRI 401. Globalization and other forces for changes are examined for their impact on agriculture and the agricultural education, research, and extension knowledge support systems that promote agricultural development. The basic and often conflictive concepts relating to agriculture, agricultural development and agricultural research and extension. The main focus is on public sector agricultural and rural extension services and the diversity of contemporary institutional reforms that these services are experiencing in developing countries.

AGNR 422 International Agriculture Science and Culture (6) Four hours of lecture and six hours of discussion/recitation per week. Prerequisite: Permission of department. Immersion-based, intensive course of study in a foreign agricultural education setting. UM Students will study with local students in a variety of University classes and field experiences in agriculture, natural resources and environmental sciences, laboratory science, economics, education technology, etc. Students will learn customs, culture and language of the host country.

AGNR 423 Exploring International Agriculture (3) Prerequisite: Permission of department. Not open to students who have completed AGNR422. Immersion-based, intensive course of study in a foreign agricultural setting. Students may expect to have university classes and field experiences in one or more agriculture and natural resource disciplines. Students will learn about the culture and customs of the host country as well as undertake at least an introductory language course.

AGNR 450 Human Resources Development in Agriculture (3) Three hours of lecture and one hour of discussion/recitation per week. Junior standing. Formerly AGRI 450. Human resources development in the agriculture sector highlights policy, institutional, and programmatic determinations to advance work force capability in countries worldwide. Focus on developing countries, their problems, needs, and the challenge ahead.

AGNR 464 Rural Life in Modern Society (3) Formerly AGRI 464. The historical and current nature of rural and agricultural areas and communities in the complex structure and culture of U.S. society. Basic structural, cultural, and functional concepts for analyses and contrasts of societies and the organizations and social systems within them.

AGNR 467 Agricultural Knowledge and Institutional Change in Latin America (3) Junior standing. The roles of agricultural research and extension in furthering agricultural development and trade in Latin
America and the implications of contemporary reforms of these institutions. A review of basic concepts relating to agriculture and its knowledge systems, such as agricultural research, education and extension with emphasis on Latin America’s cultural and institutional diversity. Students will be introduced to career possibilities in national and international organizations involved with development assistance.

**AGNR 489 Field Experience (1-4)** Prerequisite: Permission of department. Repeatable to 4 credits if content differs. Formerly AGRI 489. Credit according to time scheduled and organization of the course. A lecture series organized to study in depth a selected phase of agriculture not normally associated with one of the existing programs.

**AGNR 499 Special Problems (1-3)** Formerly AGRI 499.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: AMSC - Applied Mathematics & Scientific Computation

Course Number: 

Search

Courses in "AMSC-Applied Mathematics & Scientific Computation"

AMSC - Applied Mathematics & Scientific Computation

AMSC 420 Mathematical Modeling (3) Prerequisite: MATH241, MATH246, STAT400, MATH240 or MATH461; and permission of department. Also offered as MATH420. Credit will be granted for only one of the following: AMSC420, MAPL420, or MATH420. Formerly MAPL 420. The course will develop skills in mathematical modeling through practical experience. Students will work in groups on specific projects involving real-life problems that are accessible to their existing mathematical backgrounds. In addition to the development of mathematical models, emphasis will be placed on the use of computational methods to investigate these models, and effective oral and written presentation of the results.

AMSC 452 Introduction to Dynamics and Chaos (3) Prerequisites: MATH240 and MATH246. Also offered as MATH452. Credit will be granted for only one of the following: AMSC452, MAPL452, or MATH452. Formerly
MAPL 452. An introduction to mathematical dynamics and chaos. Orbits, bifurcations, Cantor sets and horseshoes, symbolic dynamics, fractal dimension, notions of stability, flows and chaos. Includes motivation and historical perspectives, as well as examples of fundamental maps studied in dynamics and applications of dynamics.

AMSC 460 Computational Methods (3) Prerequisites: MATH240; and MATH241; and CMSC106 or CMSC114 or ENEE114. Also offered as CMSC460. Credit will be granted for only one of the following: AMSC/CMSC/MAPL460 or AMSC/CMSC/MAPL466. Formerly MAPL 460. Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

AMSC 462 Computer Science for Scientific Computing (3) Prerequisite: CMSC106 or CMSC131; and (AMSC460 or CMSC460); or permission of department. This course cannot be used toward the upper-level math requirement for MATH and STAT majors. Students who take CMSC311 or CMSC330 will not be given credit for this course. Also offered as CMSC462. Credit will be granted for only one of the following: AMSC462 or CMSC462. A survey of computer science for scientists and engineers. The goal is to enable the student to write efficient, well-organized programs for today's machines. Topics to be treated include computer organization, computer arithmetic, processes and operating systems, the memory hierarchy, comparison of the Fortran and C families of languages, compilers, the run time environment, memory allocation, preprocessors and portability, and documentation. Specific topics will vary from semester to semester.

AMSC 466 Introduction to Numerical Analysis I (3) Prerequisites: MATH240; and MATH241; and CMSC106 or CMSC114 or ENEE114. Also offered as CMSC466. Credit will be granted for only one of the following: AMSC/CMSC/MAPL460 or AMSC/CMSC/MAPL466. Formerly MAPL 466. Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

AMSC 477 Optimization (3) Prerequisites: (AMSC/CMSC/MAPL460, or AMSC/CMSC/MAPL466 or AMSC/CMSC/MAPL467) with a grade of C or better. Also offered as CMSC477. Credit will be granted for only one of the following: AMSC477, CMSC477 or MAPL477. Formerly MAPL 477. Linear programming including the simplex algorithm and dual linear programs, convex sets and elements of convex programming, combinatorial optimization, integer programming.

AMSC 498 Selected Topics in Applied Mathematics (1-3) Repeatable to 6 credits if content differs. Formerly MAPL 498. Topics in applied mathematics of special interest to advanced undergraduate students.

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Use the search box below to view the approved courses.

Select Program: AMST - American Studies

Course Number: Search

Courses in "AMST-American Studies"

AMST - American Studies

AMST 200 American Studies Portfolio I: Orientation (1) Pre- and corequisite: AMST201. For AMST majors only. Orientation to the major in American Studies, emphasizing the creation of an electronic portfolio documenting written and multimedia projects, internships and service-learning experiences.

AMST 201 Introduction to American Studies (3) Introduction to American cultural studies--past and present--by examining the concept of "self" in American autobiographical writing and the concept of "society" in accounts of various communities.

AMST 203 Popular Culture in America (3) An introduction to American popular culture, its historical
development, and its role as a reflection of and influence on our culture and society.

**AMST 204 Film and American Culture Studies (3)** Exploration of the American film from a historical perspective, illustrating the motion picture's role as an institutional phenomenon, as a form of communication, and as a source of cross-cultural study.

**AMST 205 Material Aspects of American Life (3)** Historical survey of American material culture. Ways of describing and interpreting accumulated material evidence (e.g., buildings, town plans) introduced by stressing relationship between artifact and culture.

**AMST 207 Contemporary American Cultures (3)** World views, values, and social systems of contemporary American cultures explored through readings on selected groups such as middle-class suburbanites, old order Amish, and urban tramps.

**AMST 211 Technology and American Culture (3)** Historical and contemporary technological innovations in American society, with special emphasis on the humanities. Varied social and cultural responses to one contemporary technological issue e.g. (environmental pollution, genetic engineering, communications technology, and psychopharmacology).

**AMST 212 Diversity in American Culture (3)** Exploration of the role of diversity in the shaping of American culture. Special emphasis will be placed on the multicultural origins of American popular and material culture, such as foodways and entertainment, and on the experience of "Americanization."

**AMST 260 American Culture in the Information Age (3)** Credit will be granted for only one of the following: AMST260 or AMST298I. Formerly AMST 298I. Examines the ways in which content and form of public information interact with the culture, families & individuals.

**AMST 298 Selected Topics in American Studies (3)** Repeatable to 6 credits if content differs. Cultural study of a specific theme or issue involving artifacts and documents from both past and contemporary American experience.

**AMST 330 Critics of American Culture (3)** For American Studies major only or permission of instructor. Philosophies of American social purpose and promise. Readings from "classical" American thinkers, contemporary social commentators, and American studies scholars.

**AMST 340 Introduction to History, Theories and Methods in American Studies (3)** Prerequisite: Two AMST courses. Sophomore standing. For AMST majors only. Introduction to the process of interdisciplinary research, including research literatures, questions, first-hand sources and library and analytic methods in American Studies. Each student will craft a prospectus for original research.

**AMST 388 Honors Thesis (3)** Prerequisite: Admission to AMST honors program. Permission of the department. Senior standing. Repeatable to 3 credits if content differs. Individual research, thesis and oral defense. The research project will be conducted under the supervision of a faculty member.

**AMST 398 Independent Studies (1-3)** Prerequisite: Permission of department. Repeatable to 6 credits if content differs. Provides the student with the opportunity to pursue independent, interdisciplinary research and reading in specific areas of American culture studies.

**AMST 418 Cultural Themes in America (3)** Repeatable to 6 credits if content differs. Examination of structure and development of American culture through themes such as "growing up American," "culture and mental disorders," "race," "ethnicity," "regionalism," "landscape," and "humor."

**AMST 428 American Cultural Eras (3)** Repeatable to 6 credits if content differs. Investigation of a decade, period, or generation as a case study in significant social change within an American context. Case studies include "Antebellum America, 1840-1860," "American culture in the Great Depression."

**AMST 429 Perspectives on Popular Culture (3)** Repeatable to 6 credits if content differs. Topics in popular culture studies, including the examination of particular genres, themes, and issues.

**AMST 432 Literature and American Society (3)** Prerequisite: Prior course in AMST, SOCY, American literature, or American history. Examination of the relationship between literature and society: including literature as cultural communication and the institutional framework governing its production, distribution, conservation and evaluation.

**AMST 433 American Humor (3)** Credit will be granted for only one of the following: AMST418A or AMST433. Formerly AMST 418A. American humor from the Colonial era through the present in genres including literature, journalism, graphic arts, performance, and modern media. How humor expresses and mediates important social and cultural concerns including politics, religion, race and ethnicity, gender and topical issues.
AMST 450 Seminar in American Studies (3) Prerequisite: Nine hours prior coursework in American Studies, including AMST201. Senior standing. For AMST majors only. Developments in theories and methods of American Studies scholarship, with emphasis upon interaction between the humanities and the social sciences in the process of cultural analysis and evaluation.

AMST 498 Special Topics in American Studies (3) Repeatable to 9 credits if content differs. Topics of special interest.

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Use the search box below to view the approved courses.

Select Program: ANSC - Animal Science

Course Number: Search

Courses in "ANSC-Animal Science"

**ANSC - Animal Science**

ANSC 101 Principles of Animal Science (2) Two hours of lecture per week. A comprehensive overview of the application of biology in the care and use of animals that live in close association with humans including food animals, companion animals, lab animals, zoo animals, etc. The role of science in modern food production using animals will be emphasized. Offered in fall semester only.

ANSC 103 Principles of Animal Science Laboratory (1) Pre- or corequisite: ANSC101. Course is restricted to ANSC majors. Other students in the College of AGNR can contact the department for permission to enroll. Laboratory focusing on the application of biology in the care and use of animals that live in close association with humans including food animals, companion animals, lab animals, zoo animals, etc. Labs will include live animals. Offered in fall semester only.
ANSC 211 Anatomy of Domestic Animals (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ANSC101 and BSCI105. For ANSC and ENSP (2299M) majors only. A systematic gross and microscopic comparative study of the anatomy of the major domestic animals. Special emphasis is placed on those systems important in animal production.

ANSC 212 Applied Animal Physiology (3) Prerequisite: ANSC211 or equivalent. The physiology of domesticated animals with emphasis on functions related to homeostasis, and the physiological adaptation to environmental influences.

ANSC 214 Applied Animal Physiology Laboratory (1) Three hours of laboratory per week. Pre- or corequisite: ANSC212. Application of physiological laboratory techniques to domestic and lab animals.

ANSC 220 Livestock Management (3) Prerequisite: ANSC101. Management of meat animals including beef, sheep, and swine. This course will emphasize obtaining optimal efficiency of production through the integration of leading edge breeding, feeding, management, and marketing practices.

ANSC 232 Horse Management (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ANSC101. Credit will be granted for only one of the following: ANSC232 or ANSC332. Formerly ANSC 332. An introductory course on the care, management, and use of horses. Major topics include the industry, breeds, conformation, feeding, health, reproduction, facilities and business.

ANSC 233 Equine Behavior (2) Prerequisite: ANSC101 and ANSC232. Credit will be granted for only one of the following: ANSC489B or ANSC233. Formerly ANSC 489B. Both normal and abnormal behavior of horses will be covered. Emphasis will be given to techniques based on knowledge of behavior that are known to be safe and effective in handling horses.

ANSC 234 Equine Nutrition (2) Prerequisite: ANSC232. Not open to students who have completed ANSC489N. Credit will be granted for only one of the following: ANSC489N or ANSC234. Formerly ANSC 489N. Fundamentals of equine nutrition including feed ingredient selection, ration-balancing, and nutrition of various classes of horses.

ANSC 235 Applied Small Ruminant Parturition (2) One hour of lecture and three hours of laboratory per week. Prerequisite: grade of C/2.0 or better in ANSC101 and permission of department. Not open to students who have completed Lamb Watch. Popularly known as 'Lamb Watch', the course provides an immersion environment for learning and understanding pre- and post-natal care of ewes and lambs through direct, hands-on involvement in the birthing process and care of the neonate through weaning. Covered topics include zoonoses, basic reproductive physiology of the sheep, normal and abnormal delivery, management of lambs, qualitative assessment, breeding principles, etc.

ANSC 240 Dairy Cattle Management (2) Prerequisite: ANSC220. All aspects of dairy production, including nutrition, reproduction, mastitis control, milking management, farmstead facilities, financial management and forage production.

ANSC 241 Dairy Cattle Management Practicum (1) Three hours of laboratory per week. Prerequisite: ANSC240. Formerly ANSC 242. Practicum to parallel ANSC 240. Field trips required.

ANSC 244 Dairy Cattle Type Appraisal (1) Two laboratory periods. Prerequisite: Permission of department. Laboratory. Analysis of dairy cattle type with emphasis on the comparative judging of dairy cattle.

ANSC 252 Introduction to the Diseases of Wildlife (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: BSCI105 or equivalent or permission of department. The principal diseases of North American wildlife will be briefly considered. For each disease, specific attention will be given to the following: signs evidenced by the affected animal or bird, causative agent, means of transmission and effects of the disease on the population of the species involved.

ANSC 255 Introduction to Aquaculture (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ANSC101 or introductory biology course. Introduces the art and science of rearing aquatic animals and the essential principles of aquaculture. Students receive hands-on training in the methods required for successful husbandry and management of aquatic animals in their water environment.

ANSC 262 Commercial Poultry Management (3) Prerequisite: ANSC101. Theory and science of rearing poultry and marketing poultry meat and eggs in the commercial sector. Includes current issues, organization of the industry, as well as fundamental biology of the domestic chicken. Field trips to commercial poultry operations are required.

ANSC 305 Companion Animal Care (3) Prerequisite: BSCI105. Care and management of the companion small animals. Species covered include the cat, dog, rodents, lagomorphs, reptiles, amphibians, birds and others as class interest and schedule dictate. Basic description, evolutionary development, breeding, nutritional and environmental requirements, and public health aspects will be presented for each species.
ANSC 314 Comparative Animal Nutrition (3) Prerequisites: ANSC101 and (CHEM104 or CHEM231). The fundamental role and implications of dietary preference, gastrointestinal physiology and nutrients in animal nutrition. Biochemical roles of nutrients in metabolism, digestion, absorption and assimilation as it relates to various life processes.

ANSC 315 Applied Animal Nutrition (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ANSC314. Elements of nutrition, source characteristics and adaptability of various feedstuffs to several classes of livestock. A study of the composition of feeds, nutrient requirements and computerized formulation of economic diets and rations for livestock.

ANSC 327 Molecular and Quantitative Animal Genetics (3) Prerequisites: ANSC101, BSCI105, and CHEM131. Classical, molecular, and population genetics with specific emphasis on animal systems will be covered. Also, disseminate information on molecular approaches for manipulating genetics at the whole animal level (transgenic and cloning). Other model organisms will be discussed to provide a conceptual framework.

ANSC 330 Equine Science (3) Prerequisite: ANSC232 or permission of instructor. Recommended: ANSC211 and ANSC212. Credit will be granted for only one of the following: ANSC230 or ANSC330. Formerly ANSC 230. Scientific principles of horse behavior, anatomy, physiology, locomotion, nutrition, reproduction, growth, health and disease as applied to horses are emphasized.

ANSC 340 Health Management of Animal Populations (3) Two hours of lecture and two hours of discussion/recitation per week. Prerequisite: ANSC212. Recommended: BSCI223. Credit will be granted for only one of the following: ANSC340 or ANSC412. Formerly ANSC 412. A study of common and emerging animal diseases and their prevention and control. The main focus will be on livestock and poultry diseases. However, zoonotic, wildlife, and laboratory animal diseases will also be discussed along with risk assessment, bioterrorism counter-measures, and animal welfare, especially as these topics interface or impact animals used in food production.

ANSC 386 Experiential Learning (3-6) Prerequisite: Permission of department. Junior standing.

ANSC 388 Honors Thesis Research (3-6) Prerequisite: Admission to AGNR Honors Program. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

ANSC 397 Seminar - Careers (1) Prerequisite: Permission of department. Career and professional opportunities. Overview of professional organizations and appropriate private and governmental agencies. Preparation and presentation of animal science topics.

ANSC 398 Seminar - Research (1) Prerequisite: ANSC101. Repeatable to 2 credits if content differs. Presentation and discussion of current literature and research work in animal science.

ANSC 399 Special Problems in Animal Science (1-2) Prerequisite: ANSC101 and permission of department. Junior standing. Repeatable to 6 credits if content differs. Work assignments are designed to be proportional to the amount of credit. Students are expected to develop an abstract, fact sheet, manuscript, oral presentation, poster, webpage, journal-log, or other scholarly product associated with their study and/or project.

ANSC 413 Laboratory Animal Management (3) Prerequisite: ANSC101. A comprehensive course in care and management of laboratory animals. Emphasis will be placed on physiology, anatomy and special uses for the different species. Disease prevention and regulations for maintaining animal colonies will be covered. Field trips will be required.

ANSC 420 Critical Thinking in Animal Science (3) Two hours of lecture, one hour of laboratory, and one hour of discussion/recitation per week. Recommended: AREC250, AREC306. Employ methods to systematically solve selected problems that typically arise on farms or allied businesses related to animal enterprises.

ANSC 435 Experimental Embryology (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ANSC212. Recommended: Reproductive Physiology. Credit will be granted for only one of the following: ANSC435 or ANSC489M. Formerly ANSC 489M. Experimental approaches to mammalian embryology with emphasis on domestic livestock systems as applied to research and production systems. Lab will include hands-on experiments and demos of in vitro embryo production, embryo splitting, cell injection and nuclear transfer.

ANSC 437 Animal Biotechnology (2) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: ANSC327 or equivalent. Key concepts and current issues in animal biotechnology are covered. Current techniques and applications systems as well as social, ethical, and regulatory issues associated with biotechnology will be discussed.
ANSC 443 Physiology and Biochemistry of Lactation (3) Prerequisites: ANSC212 and BCHM463 or equivalent. The physiology and biochemistry of milk production in domestic animals, particularly cattle. Mammary gland development and maintenance from the embryo to the fully developed lactating gland. Abnormalities of the mammary gland.

ANSC 444 Domestic Animal Endocrinology (3) Prerequisite: ANSC212 or permission of instructor. Not open to students who have completed ANSC489I or ANSC644. Credit will be granted for only one of the following: ANSC489I, ANSC444, or ANSC644. Formerly ANSC 489I. Current developments in endocrinology as it relates to animals used in the production of food and other products important to the well being of humans will be covered.

ANSC 446 Physiology of Mammalian Reproduction (3) Prerequisite: BSCI440 or ANSC212. Anatomy and physiology of reproductive processes in domesticated and wild mammals.

ANSC 447 Physiology of Mammalian Reproduction Laboratory (1) Three hours of laboratory per week. Pre- or corequisite: ANSC446. Gross and micro-anatomy, artificial insemination, estrous cycle synchronization and in vitro-fertilization procedures and analytical techniques useful in animal management and reproduction.

ANSC 450 Animal Breeding Plans (3) Prerequisite: BIOM301 or equivalent. Junior standing. Design of animal breeding programs for the genetic improvement of livestock and companion animal species. Principles of population and quantitative genetics. Genetic evaluations of animals, selection strategies and crossbreeding systems. Incorporation of advanced statistics and biotechnology into animal breeding plans.

ANSC 452 Avian Physiology (3) Two two-hour lecture/laboratory/demonstration periods per week. One hour of lecture and two hours of laboratory per week. Prerequisite: ANSC212. 60 semester hours. The digestive, excretory, respiratory, circulatory, immune, skeletal muscle, endocrine and nervous systems of avian species will be examined.

ANSC 453 Animal Welfare and Bioethics (3) Two hours of lecture and two hours of discussion/recitation per week. Prerequisite: ANSC101 or BSCI106 or permission of instructor. Junior standing. Ethical concerns related to the use of animals in modern society. Historical and philosophical overview of animal welfare and bioethics. Applied ethical discussions on human/animal interrelationships, physical and genetic manipulation, and other current issues associated with the treatment of animals used in food production, research, zoos, and as pets.

ANSC 455 Applied Animal Behavior (3) Two hours of lecture and two hours of laboratory per week. Prerequisites: ANSC101 or BSCI106. Principles of animal behavior applied to production systems in animal agriculture.

ANSC 489 Current Topics in Animal Science (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Examination of current developments in the animal sciences.

ANSC 497 Animal Biotechnology Recombinant DNA Laboratory (3) One hour of lecture and five hours of laboratory per week. Prerequisite: ANSC327 or equivalent. Recommended: ANSC435 and ANSC437. An advanced course offering hands-on experience in performing recombinant DNA experiments. Current molecular biology techniques used for cloning genes, analyzing the gene products, and modifying the genes of animals will be performed. Techniques include isolation of DNA, use of restriction enzymes; cloning procedures, PCR analysis, and Southern hybridizations. Lecture material focuses on interpretation of results generated in the laboratory.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: ANTH - Anthropology

Course Number: Search

Courses in "ANTH-Anthropology"

ANTH - Anthropology

**ANTH 220 Introduction to Biological Anthropology (4)** Three hours of lecture and two hours of laboratory per week. Credit will be granted for only one of the following: ANTH101 or ANTH220. Formerly ANTH 101. Human biological evolution, including the biology of contemporary human groups, non-human primate social behavior, and the fossil, biochemical, and molecular evidence for human evolution. Includes a laboratory study of human population genetics, biochemical variation, and anatomical diversity in modern and fossil human and non-human primate groups.

**ANTH 240 Introduction to Archaeology (3)** Credit will be granted for only one of the following: ANTH240 or ANTH241. Formerly ANTH 241. Exploration of the variety of past human societies and cultures through archaeology, from the emergence of anatomically modern humans to the more recent historical past.
ANTH 260 Introduction to Sociocultural Anthropology and Linguistics (3) Credit will be granted for only one of the following: ANTH102 or ANTH260. Formerly ANTH 102. Culture and social relationships in a wide variety of settings from small-scale to complex societies. An overview of how anthropology analyzes human behavior. Particular attention to the relationship between language and culture.

ANTH 262 Culture and Environment (3) Prerequisite: ANTH 260 or permission of department. Credit will be granted for only one of the following: ANTH 221 or ANTH 262. Formerly ANTH 221. Theory and method in cultural ecology and the formulation of a critical perspective on the explanation of the concept of adaptation. Includes the ecological understanding of gender differences and considers conflicting natural resource management strategies and environmental degradation.

ANTH 298 Special Topics in Anthropology (3) Repeatable to 6 credits if content differs. Anthropological perspectives on selected topics of broad general interest.

ANTH 320 Method and Theory in Biological Anthropology (3) Prerequisite: ANTH220 or permission of department. Not open to students who have completed ANTH425 or ANTH525. Credit will be granted for only one of the following: ANTH320, ANTH425, or ANTH625. Introduction to major contributions to applied biological anthropology. Topics include reproduction and fertility, nutrition, pollution, physical fitness, and degenerative metabolic disease.

ANTH 340 Method and Theory in Archaeology (3) Prerequisite: ANTH240. Theory, method, and practice which guides modern anthropological archaeology. Includes research design and execution (from survey through excavation and interpretation), the reconstruction of aspects of past cultures, and the understanding of cultural change and meaning.

ANTH 358 Undergraduate Teaching Assistant (1-3) Prerequisite: ANTH220, ANTH240, or ANTH260 for ANTH 358A/B/C respectively. Junior standing. For ANTH majors only. Repeatable to 6 credits if content differs. Individual instruction course: contact department or instructor to obtain section and index numbers.

ANTH 360 Method and Theory in Sociocultural Anthropology (3) Prerequisite: ANTH260. Theoretical approaches and research methods in sociocultural anthropology. Emphasis on current debates, new directions, and their historical antecedents.

ANTH 361 Cultures of Native North America (3) Credit will be granted for only one of the following: ANTH361 or ANTH368N. Formerly ANTH 368N. Examination of the cultures native to North America, including the land areas of Canada, the United States of America, and the major portion of the Republic of Mexico.

ANTH 362 Diversity in Complex Societies (3) Prerequisite: ANTH260 or permission of department. Methodological and theoretical approaches in anthropology to complex society through selected case study material that highlights the relationship between gender, class and cultural diversity as it shapes modern social life. Cross-cultural comparison and the different perspectives of minority and feminist scholars will also be stressed.

ANTH 363 Native Cultures of Mesoamerica (3) Credit will be granted for only one of the following: ANTH363 or ANTH368M. Formerly ANTH 368M. Examination of the various indigenous people of the Western Hemisphere with a focus on the influence and effect of European contact on these cultural systems. Discussion of the cultural and social contrasts and complexities shared by the people in this region on local, regional, and national levels.

ANTH 364 The Anthropology of Religion (3) Prerequisite: ANTH260. Credit will be granted for only one of the following: ANTH364 or ANTH434. Formerly ANTH 434. Comparative study of religion in social, cultural, political, and economic context. Combines the history of schools of interpretation with a survey of theoretical alternatives and a focus on selected case studies.

ANTH 365 Cultures of Native South America (3) Not open to students who have completed ANTH368S. Credit will be granted for only one of the following: ANTH365 or ANTH368S. Formerly ANTH 368S. An examination of the South American Native people and their culture, past and present. Discussion of the invasion and political domination of South American Native people by Europeans and the remnant cultures subsequent representation by outsiders.

ANTH 366 Film Images of Native Americans (3) Formerly ANTH 368F. An examination of how indigenous people of the New World have been presented to film audiences of the world. Development of an ethnographic understanding of Native Americans via the use of videos, films, and classroom discussion.

ANTH 368 Regional Ethnography (3) Prerequisite: ANTH260 or permission of department. Repeatable to 6 credits if content differs. Peoples and cultures of a particular region of the world, on the basis of ethnographies, archaeological evidence, and relevant works by social historians and political economists. The regional focus and thematic emphasis will vary by semester.

ANTH 380 Culture and Discourse (3) Prerequisite: ANTH260 or equivalent or permission of department. Recommended: LING200 or equivalent. Credit will be granted for only one of the following: ANTH380 or
ANTH371. Formerly ANTH 371. Contemporary discourse analysis and pragmatics applied to ethnographic research problems with particular attention to roots in recent linguistic anthropological work in ethnographic semantics and ethnography of speaking.

**ANTH 386 Experiential Learning (1-6)** Prerequisite: permission of department. Recommended: completion of advanced courses in relevant subfield of anthropology. Junior standing. For ANTH majors only.

**ANTH 398 Independent Study (1-3)** Prerequisite: Permission of department. Repeatable to 6 credits if content differs. Independent interdisciplinary research and reading in specific areas of anthropology.

**ANTH 410 Theory and Practice of Health and Community Development (3)** Junior standing. Also offered as ANTH610. Credit will be granted for only one of the following: ANTH410 or ANTH610. Introduction to the relationships between culture, health status and practices, and the design of community-based initiatives. The focus is on the use of anthropological knowledge and skills in the analysis of such relationships and in the design of community-based initiatives.

**ANTH 422 Human-Plant- (Human & Bioactive Plant) interaction (3)** Prerequisites: ANTH220 and ANTH320 or permission of department. Also offered as ANTH622. Not open to students who have completed ANTH428I or ANTH689I. Credit will be granted for only one of the following: ANTH422 or ANTH622. Formerly ANTH 428I. This seminar course will discuss the evolutionary, historical, cultural, and ecological aspects of coevolution, with respect to humans and their interactions with specific bioactive plants. Case studies of human-plant-(pathogen) interactions will be discussed as well as an inclusive survey of anthropologically important phytochemicals. The seminar incorporates human-plant-(pathogen) interactions into models of human evolution and ecology.

**ANTH 423 Human Biodiversity (3)** Prerequisites: ANTH 220 and ANTH 320 or permission of department. Also offered as ANTH623. Not open to students who have completed ANTH428X or ANTH623. Credit will be granted for only one of the following: ANTH423 or ANTH623. Formerly ANTH 428X. This course will discuss modern human origins and contemporary human variability, the nature and levels of human diversity; how natural selection modulates human differences and similarities; early studies of human variation and the concept of human biological race. The course emphasizes the genetic and non-genetic bases of human behavioral variation; the role of gender and human biodiversity; nDNA variation, ethnicity, and disease causation; morphometric and biochemical variation; and the re-conceptualization of human biodiversity.

**ANTH 425 Theory and Practice of Applied Biological Anthropology (3)** Junior standing. Also offered as ANTH 625. Credit will be granted for only one of the following: ANTH 425 or ANTH 625. An introduction to the major theoretical and methodological underpinnings of applied biological anthropology within such areas as anthropological genetics, applied anthrometry, forensic anthropology, museum studies, and zoological parks. Emphasis is on the evaluation of the contributions of applied bioanthropological studies to particular problems in human health, environments, and heritage.

**ANTH 428 Special Topics in Bioanthropology (3)** Prerequisite: Permission of department. Repeatable to 6 credits if content differs. Advanced research courses in biological anthropology on changing topics that correspond to new theoretical interests, faculty research interests, or the specialties of visiting scholars. Prerequisites or background knowledge vary with the topic; check with the department for requirements.

**ANTH 440 Theory and Practice of Historical Archaeology (3)** Prerequisite: ANTH240. Also offered as ANTH640. Credit will be granted for only one of the following: ANTH440 or ANTH640. Historical archaeology enhances cultural heritage by providing voice for groups who were often unable to record their own histories, such as women, laborers, working class families, and enslaved people. The course provides insight into issues related to race, gender, and ethnicity as they relate to multicultural histories.

**ANTH 448 Special Topics in Archaeology (3)** Prerequisite: ANTH240. Repeatable to 6 credits if content differs. Advanced topics in archaeological research, corresponding to new theoretical developments, faculty research interests, or specialties of visiting scholars. Prerequisites may vary with course topic; check with the department for requirements.

**ANTH 450 Theory and Practice of Environmental Anthropology (3)** Junior standing. Also offered as ANTH650. Credit will be granted for only one of the following: ANTH450 or ANTH650. An overview of contemporary application of cultural theory and methods to environmental problems. Topics include the use of theories of culture, cognitive approaches, discourse analysis, and political ecology. Case studies from anthropology, other social sciences, humanities, conservation, and environmental history are used to demonstrate the applied value of a cultural-environmental approach.

**ANTH 454 Anthropology of Travel and Tourism (3)** Also offered as ANTH654. Not open to students who have completed ANTH468U. Credit will be granted for only one of the following: ANTH454 or ANTH654. Formerly ANTH 468U. Review of recent anthropological contributions to the study of travel and tourism development. Topics include the history of travel, political economy of tourism, gender in tourism, the built environment, ecotourism, and heritage tourism.

**ANTH 460 Interpretive Anthropology (3)** Prerequisite: ANTH260 or permission of department. Anthropological approaches which seek to explain human behavior in terms of meaning and their
relationships to other aspects of social life.

**ANTH 464 Culture and Sustainable Development (3)** Prerequisite: ANTH262 or equivalent. Also offered as ANTH688V. Credit will be granted for only one of the following: ANTH464 or ANTH688V. Explores anthropological approaches to economic development, particularly the new sub-field of sustainable development. Examines the local-level social, political and economic consequences of development and the potential for grass roots strategies to manage resources.

**ANTH 468 Special Topics in Cultural Anthropology (3)** Prerequisite: ANTH360 or permission of department. Repeatable to 6 credits if content differs. Advanced courses in varying specialty areas of cultural anthropology that respond to new theoretical developments, faculty research interests, or specialties of visiting scholars.

**ANTH 470 History and Philosophy of Anthropological Inquiry (3)** Prerequisite: ANTH220 or ANTH240 or ANTH260. Recommended: ANTH220 or ANTH340 or ANTH360 or ANTH380. Credit will be granted for only one of the following: ANTH470 or ANTH397. Important philosophical and historical aspects of anthropological theorizing. Attention will be given on the Ontological and Epistemological (the latter including Methodological) assumptions of the major camps and paradigms in anthropology over the past one hundred or so years, especially the last three decades. A focus on developments in cultural anthropology, while addressing the other subfields of anthropology.

**ANTH 476 Senior Research (3-4)** For ANTH majors only. Credit will be granted for only one of the following: ANTH476 or ANTH486. Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of a senior thesis in anthropology.

**ANTH 477 Senior Thesis (3-4)** Prerequisite: ANTH476; permission of department. For ANTH majors only. Credit will be granted for only one of the following: ANTH477 or ANTH487. Capstone course in which students write a senior thesis on independent research into a current problem in anthropology. The thesis is defined before a committee of faculty.

**ANTH 478 Special Topics in Linguistics (3)** Prerequisite: ANTH380 or permission of department. Recommended: LING200 or equivalent. Repeatable to 6 credits if content differs. Advanced courses in specialty areas that respond to new theoretical developments and faculty research interests in linguistics.

**ANTH 486 Honors Research (3-4)** Prerequisites: permission of department; admission to University Honors Program or Anthropology Honors Program. For ANTH majors only. Credit will be granted for only one of the following: ANTH486 or ANTH476. Capstone course in which students pursue independent research into a current problem in anthropology, selected with assistance of a committee of faculty. Research leads to the writing of an honors thesis in anthropology.

**ANTH 487 Honors Thesis (3-4)** Prerequisites: ANTH486; permission of department; admission to University Honors Program or Anthropology Honors Program. For ANTH majors only. Credit will be granted for only one of the following: ANTH476 or ANTH487. Capstone course in which students write a thesis on the results of independent research into a current problem in anthropology.

**ANTH 493 Anthropological Fieldwork and Experience in Argentina: The Relevance of Context and Place (3)** Credit will be granted for only one of the following: ANTH493, ANTH468Q, ANTH688Q, ANTH693, CPSP379, or HONR348E. A three week intensive course in Argentina that examines anthropological fieldwork and experiences to understand the relevance of context and place in the identification and implementation of projects on health, development, and heritage. Students will learn to contextualize the production and dissemination of knowledge within political-economic, historical, socio-cultural and policy realms. Participant-observation of the local culture and exposure to the regional varieties of anthropological practice will also be carried out through comparison of projects in the U.S. and Argentina, visits to selected sites of anthropological production, and homestays with families.

**ANTH 496 Field Methods in Archaeology (6)** Formerly ANTH 499. Field training in the techniques of archaeological survey and excavation.

**ANTH 498 Advanced Field Training in Ethnography (1-8)** Prerequisite: Permission of department. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: ANTH498 or ANTH698. Experience in field research utilizing a variety of ethnographic methods of inquiry.

**ANTH 499 Fieldwork in Biological Anthropology (3-8)** Prerequisite: permission of department. Repeatable to 8 credits if content differs. Field training in techniques of human biology, primatology, or paleoanthropology.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: AOSC - Atmospheric and Oceanic Science

Course Number: Search

Courses in "AOSC-Atmospheric and Oceanic Science"

AOSC 123 Causes and Implications of Global Change (3) Also offered as GEOG123, and GEOL123. Credit will be granted for only one of the following: AOSC123, GEOG123, GEOL123, or METO123. Formerly METO 123. This course offers a unique experience in integrating physical, chemical, geological and biological sciences with geographical, economic, sociological and political knowledge skills toward a better understanding of global change. Review of environmental science relating to weather and climate change, acid precipitation, ozone holes, global warming and impacts on biology, agriculture and human behavior. Study of the natural, long-term variability of the global environment, and what influence mankind may have in perturbing it from its natural evolution. Concepts of how physical, biological and human behavioral systems interact, and the repercussions which may follow from human endeavors. The manner in which to approach decision and policy making related to issues of global change.
AOSC 200 Weather and Climate (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: MATH110 or MATH115. Recommended as a corequisite: AOSC201/METO201. Formerly METO 200. Broad survey of the state of knowledge and problems of atmospheric science. Origin and structure of the atmosphere, meteorological observations, weather maps, forecasting, satellites, energetics, wind, general circulation, storms, severe weather, climate change, air pollution.

AOSC 201 Weather and Climate Laboratory (1) Two hours of laboratory per week. Corequisite: AOSC200/METO200. Formerly METO 201. Laboratory exercises to supplement AOSC200, including weather observations, weather map analysis, use of the Internet, forecasting practice and climate modeling.

AOSC 346 Cycles in the Earth System (3) Prerequisite: MATH140, AOSC/GEOG/GEOL123, or permission of department. Recommended: MATH141, PHYS141, PHYS171, or PHYS161. Also offered as EOG346, GEOL346. The Earth System operates through some fundamental cycles such as water, energy, and the carbon cycles. This course will build on GEOL/GEOG/AOSC123 starting with concept of feedbacks within the Earth System, global energy balance and the Greenhouse Effect. A brief introduction to the atmospheric and oceanic circulation will lead to the water cycle connecting the land, ocean, and atmosphere to the Earth System. Introduction to the Global carbon, nitrogen, and sulfur cycles will be followed by the concept of long-term climate regulation and short-term climate variability. The concepts of cycles, feedbacks, forcings, and responses in the Earth System will be applied to Global Warming and Ozone Depletion.

AOSC 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor and student’s internship sponsor. Junior standing. Formerly METO 386.

AOSC 400 The Atmosphere (3) Prerequisites: MATH141, PHYS161, PHYS171 or permission of department. Formerly METO 400. The atmosphere and its weather and climate systems. Composition of the atmosphere, energy sources and sinks, winds, storms and global circulation. The application of basic classical physics, chemistry and mathematics to the study of the atmosphere.

AOSC 401 Global Environment (3) Prerequisite: AOSC400/METO400. Formerly METO 401. The global weather and climate system; the natural variability of the atmosphere-ocean-biosphere. Potential human effects: greenhouse effects, deforestation, acid rain, ozone depletion, nuclear winter. Social, political and economic effects of changes in global environment. Policy options.

AOSC 431 Meteorology for Scientists and Engineers I (3) Prerequisites: MATH240 or 461; PHYS270 and PHYS271 (Formerly: 263); CHEM103. Recommended: MATH246. The general character of the atmosphere and its weather and climate systems, phenomena and distributions of variables (winds, temperature, pressure and moisture). The formal framework of the science; the application of basic classical physics, chemistry, mathematics and computational sciences to the atmosphere.

AOSC 432 Meteorology for Scientists and Engineers II (3) Prerequisite: AOSC431/METO431. Corequisite: MATH246. 3 semester hours. Formerly METO 432. The general character of the atmosphere and its weather and climate systems, phenomena and distributions of variables (winds, temperature, pressure and moisture). The formal framework of the science; the application of basic classical physics, chemistry, mathematics and computational sciences to the atmosphere.

AOSC 434 Air Pollution (3) Prerequisites: {CHEM113 and MATH241} or permission of department. Formerly METO 434. Production, transformation, transport and removal of air pollutants. The problems of photochemical smog, the greenhouse effect, stratospheric ozone, acid rain and visibility. Analytical techniques for gases and particles.

AOSC 499 Special Problems in Atmospheric Science (1-3) Prerequisite: permission of department. Repeatable to 6 credits. Formerly METO 499. Research or special study in the field of meteorology and the atmospheric and oceanic sciences.
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Select Program: ARAB - Arabic

Course Number: [Search]

Courses in "ARAB-Arabic"

ARAB - Arabic

ARAB 101 Elementary Arabic I (3) Introduction to modern standard Arabic in both its spoken and written form. Equal emphasis on all four skill areas: speaking, listening, reading, and writing.

ARAB 102 Elementary Arabic II (3) Prerequisite: ARAB101 or equivalent. Continuation of ARAB101.

ARAB 104 Elementary Modern Standard Arabic I-II (6) Not open to fluent/native speakers of Arabic. An intensive course focusing on developing functional proficiency in the standard Arabic language, both written and formal spoken. Begins with script and phonology, and develops into a limited range of situation-based texts and topics that build vocabulary, grammar, general communicative competence and cultural awareness.
ARAB 105 Elementary Modern Standard Arabic III-IV (6) Not open to fluent/native speakers of Arabic. Prerequisite: ARAB104. Continuation of ARAB104, developing further linguistic proficiency in Standard Arabic, both written and formal spoken. Covers an extended range of situation-based texts and topics that build vocabulary, grammar, general communicative competence and cultural awareness.

ARAB 106 Elementary Egyptian Colloquial Arabic I (3) Not open to fluent/native speakers of Arabic. Basic knowledge of Arabic script required. Introduction to the widely spread spoken variety of Egyptian Arabic, covering the basic range of communicative and cultural situations where Modern Standard Arabic is not used. (Can be taken concurrently with an MSA course.) Emphasis is on developing the learners' listening and speaking skills in Egyptian Arabic, since colloquial Arabic dialects are mainly used in speech.

ARAB 107 Elementary Egyptian Colloquial Arabic II (3) Not open to fluent/native speakers of Arabic. Prerequisite: ARAB106. Continuation of ARAB106, covering a wider range of basic vocabulary, grammar forms, communicative and cultural situations using the widely spread spoken variety of Egyptian Arabic. Emphasis on developing learners' listening and speaking skills in Egyptian Arabic, since colloquial dialects in the Arab world are mainly used in speech.

ARAB 110 Elementary Levantine Colloquial Arabic I (3) Not open to fluent/native speakers of Arabic. Basic knowledge of Arabic script required. Introduction to Levantine Arabic, the variety of Arabic spoken in Lebanon, covering the basic range of communicative and cultural situations where Modern Arabic is not used. (Can be taken concurrently with a MSA course.) Emphasis on developing the learners' listening and speaking skills in Levantine Arabic.

ARAB 111 Elementary Levantine Colloquial Arabic II (3) Not open to fluent/native speakers of Arabic. Prerequisite: ARAB110. Continuation of ARAB110, covering a wider range of basic vocabulary, grammar forms, communicative and cultural situations using the widely spread spoken variety of Levantine Arabic. Emphasis on developing learners' listening and speaking skills in Levantine Arabic. Will engage students in pedagogical tasks, emulate real life tasks such as information gap and negotiation.

ARAB 201 Intermediate Arabic I (3) Prerequisite: ARAB102 or equivalent. Intermediate modern standard Arabic I in both its spoken and written forms. Course will continue to develop all four skills of language acquisition: listening, speaking, reading, and writing.

ARAB 202 Intermediate Arabic II (3) Prerequisite: ARAB201 or equivalent. Continuation of ARAB201.

ARAB 204 Intermediate Modern Standard Arabic I (6) Prerequisite: ARAB105. Covers topics related to contemporary Arabic society, literature and culture in standard written and formal spoken Arabic. Acquisition of more complex grammatical structures, expanding vocabulary, and reading, to develop a better understanding of the formal aspects of using MSA.

ARAB 205 Intermediate Modern Standard Arabic II (6) Prerequisite: ARAB204. Continuation of ARAB204, with exposure to a wide range of Arabic texts from different domains. Focus on vocabulary, more complex grammatical forms, and a better understanding of the formal aspects of using MSA as well as the cultural aspects of using the language.

ARAB 206 Elementary Egyptian Colloquial Arabic III (3) Prerequisite: ARAB107 or permission of department. Develops listening and speaking skills in Egyptian Arabic. Covers family, school, shopping, and social interaction. Some reading in Arabic.

ARAB 210 Elementary Levantine Arabic III (3) Prerequisite: permission of department. Emphasis on developing listening and speaking skills in Levantine Arabic, since colloquial dialects are mainly used in speech. Covers family, school, shopping, local culture and general interaction. Some reading in Arabic.

ARAB 211 Elementary Levantine Arabic IV (3) Prerequisite: ARAB210 or permission of department. Emphasis on developing listening and speaking skills in Levantine Arabic. Covers conversational needs in everyday situations such as introductions, at hotels, at the doctor's office, at social get-togethers, etc. Some reading in Arabic.

ARAB 221 The Arab World Today through Readings in Translation (3) An introduction to the contemporary Arabic world through literature. Includes discussions of historical background, political thought and society. (In English)

ARAB 282 The Arab-Israeli Conflict through Readings in Translation (3) Literary works by both Arab and Jewish authors depicting the impact of the conflict on society and individuals. In English.

ARAB 304 Advanced Modern Standard Arabic I (3) Prerequisite: ARAB205 or permission of department. Not open to students who have completed ARAB301. Formerly ARAB 301. Advanced grammar, reading, writing, speaking in Arabic; study of contemporary Arabic society, politics, and culture.

ARAB 306 Intermediate Egyptian Colloquial Arabic I (3) Prerequisite: ARAB107. Covering the spoken
variety of Egypt in an extended range of communicative contexts where Egyptian Colloquial and Modern Standard Arabic merge. By course end, the students speak in Egyptian Arabic in situations and topics that require reasonable knowledge of the culture.

**ARAB 307 Intermediate Egyptian Colloquial Arabic II (3)** Prerequisite: ARAB306. Continuation of ARAB306, focusing on enhancing learners' speaking and listening skills in Egyptian Arabic, enriching their vocabulary, introducing them to more complex grammatical forms and structures, and providing practice in a broad range of communicative and cultural contexts.

**ARAB 310 Intermediate Levantine Arabic I (3)** Prerequisite: ARAB211 or permission of department. Focuses on speaking and listening skills in Levantine Arabic, enriching vocabulary, introducing more complex grammatical forms and structures. Range of communicative contexts. Some reading in Arabic.

**ARAB 313 Arabic for Islamic Culture (3)** Open to native speakers of Arabic. Prerequisite: permission of department. Examines core topics related to Islamic culture and society, e.g. the political system, caliphat, reform movements, Sharia's law, human rights, role of women, and Jihad. In Arabic.

**ARAB 330 Listening Strategies in Arabic I (3)** Prerequisite: permission of department. Training in recognizing specific features of varieties of spoken Arabic in different contexts. Some reading in Arabic.

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### Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

![Search Box](image)

Courses in "ARCH-Architecture"

### ARCH - Architecture

**ARCH 101 Foundations in Architecture (1)** One hour of lecture and one hour of discussion/recitation per week. Prerequisite: UNIV100 or permission of department. Restricted to students with less than 60 credits. Freshman standing. To pursue any field of knowledge one must first begin with the basics. By learning the "language" of architecture one can explore the foundations of the architectural profession through interactive and experiential learning.

**ARCH 150 Discovering Architecture: A Career Studio (3)** Five hours of lecture, 25 hours of laboratory, and five hours of discussion/recitation per week. Prerequisite: permission of department. Introduction to careers in architecture. A Young Scholars Program course, offered during the summer only.
ARCH 170 Introduction to the Built Environment (3) Introduction of conceptual, perceptual, behavioral, and technical aspects of the built environment, and methods of analysis, problem-solving, and implementation.

ARCH 220 History of Architecture I (3) Survey of world architectural history to 1400.

ARCH 221 History of Architecture II (3) Prerequisite: ARCH220 or permission of department. Survey of world architectural history from 1400 to the present.

ARCH 223 History of Non-Western Architecture (3) Survey of non-western architectural history, including prehistoric and vernacular; ancient civilizations and the Indus valley; the Islamic world; Hindu and Buddhist traditions of Asia; and pre-European Africa and the Americas.

ARCH 224 The Ancient Roman City: Pompeii and Beyond (3) Not open to students who have completed HONR208S. Credit will be granted for only one of the following: ARCH224 or HONR208S. Study of daily life in the ancient Roman world seen through the architecture of Pompeii and neighboring cities.

ARCH 225 History of World Architecture I (3) Sophomore standing. Survey of architectural history from prehistory through the year 1000 CE.

ARCH 226 History of World Architecture II (3) Sophomore standing. Survey of architectural history from 1000 to 1800.

ARCH 227 History of World Architecture III (3) Sophomore standing. Survey of architectural history from 1800 to present.

ARCH 242 Basic Architectural Drawing (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ARCH170 or permission of department. Freshman standing. For ARCH majors only. The study of drafting as a learned skill with emphasis on observation, documentation, analysis, and synthesis. This introductory course immerses students in the conventions of architectural drawing (orthographics, isometrics, axonometrics, and linear perspective) primarily through freehand drawing.

ARCH 343 Intermediate Architectural Drawing (3) Studio, four hours per week. Six hours of laboratory per week. Prerequisite: ARCH242 or permission of department. For ARCH majors only. Development of media technique (including color pencil, pastel, graphite, ink, and watercolor) as vehicles for investigating color, composition, and abstraction. Exploration of historical and contemporary issues of representation in architectural visual communication.

ARCH 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by faculty sponsor, and student's internship sponsor. Junior standing.

ARCH 400 Architecture Studio I (6) Three hours of lecture and nine hours of studio per week. Prerequisite: ARCH majors only. Introduction to architectural design with particular emphasis on conventions and principles of architecture, visual and verbal communication skills, formal analysis, design process, spatial composition, architectural promenade, basic program distribution, and elementary constructional and environmental responses.

ARCH 401 Architecture Studio II (6) Three hours of lecture and nine hours of studio per week. Prerequisite: ARCH400 with a grade of C or better. For ARCH majors only. Continuation of ARCH 400 with introduction to building typology, urban and contextual issues, design of the vertical surface, and architectural interiors.

ARCH 402 Architecture Studio III (6) Three hours of lecture and nine hours of studio per week. Prerequisite: ARCH401 with a grade of C or better. For ARCH majors only. Architectural design studio with emphasis on building and façade typologies, the development of architectural promenade and sequence, public and/or civic infill buildings dependent upon the architectural promenade, and urban housing types of varying densities. The architect's obligations to urban context are explored in many dimensions including historical, typological, and physical.

ARCH 403 Architecture Studio IV (6) Three hours of lecture and nine hours of studio per week. Prerequisite: ARCH402 with a grade of C or better. For ARCH majors only. Investigations into the relationship between the man-made and the natural world including introductory issues of assembly and material value. Design of the site and the building are combined into an integral process delimiting and probing the boundaries of each and exploring their reciprocal relationship. The architect's obligations to the natural and urban contexts are explored in many dimensions including historical, typological, environmental, and physical.

ARCH 408 Intermediate Architectural Drawing (1-6) Prerequisite: ARCH403 or equivalent and permission of department. Repeatable to 6 credits if content differs. Topical problems in architecture and urban design.
ARCH 410 Architecture Technology I (4) Prerequisites: MATH140 or MATH220; PHYS121 and (one of the following:BSCI205, GEOG140, GEO120, GEO123/AOSC123/METO123/GEOG123). Corequisite: ARCH400. For ARCH majors only. First course in a four course sequence which develops the knowledge and skills of architectural technology. Addresses climate, human responses to climate, available materials, topography and impact on culture. Principles of assembly, basic structural principles and philosophies of construction.

ARCH 411 Technology II (4) Prerequisite: ARCH410. Corequisite: ARCH401. For ARCH majors only. Second course in a four course sequence. Building construction processes and terminology; use and performance characteristics of primary building materials; principles of structural behavior related to the building systems; equilibrium and stability, stiffness and strength, types of stress, distribution of force and stress, resolution of forces, reactions, bending moments, shear, deflection, buckling.

ARCH 412 Architecture Technology III (4) Prerequisite: ARCH411 with a grade of C or better. Corequisite: ARCH402. For ARCH majors only. Third course in a four-course sequence. Design of steel, timber, and reinforced concrete elements and subsystems; analysis of architectural building systems. Introduction to design for both natural and man-made hazards.

ARCH 413 Architecture Technology IV (4) Prerequisite: ARCH412. Corequisite: ARCH403. For ARCH majors only. Final course in a four course sequence. Theory, quantification, and architectural design applications for HVAC, water systems, fire protection electrical systems, illumination, signal equipment, and transportation systems.

ARCH 418 Selected Topics in Architectural Technology (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs.

ARCH 419 Independent Studies in Architectural Technology (1-4) Repeatable to 6 credits. Proposed work must have a faculty sponsor and receive approval of the curriculum committee.

ARCH 420 History of American Architecture (3) Prerequisite: ARCH221 or permission of department. American architecture from the late 17th to the 21st century.

ARCH 422 History of Greek Architecture (3) Prerequisite: ARCH221 or permission of department. Survey of Greek architecture from 750-100 B.C.

ARCH 423 History of Roman Architecture (3) Prerequisite: ARCH221 or permission of department. Survey of Roman architecture from 500 B.C. to A.D. 325.

ARCH 426 Fundamentals of Architecture (3) Prerequisite: admission to 3 1/2 year M. ARCH program. For ARCH majors only. Thematic introduction of a variety of skills, issues, and ways of thinking that bear directly on the design and understanding of the built world.

ARCH 427 Theories of Architecture (3) Prerequisite: ARCH426 or permission of department. For ARCH majors only. Selected historical and modern theories of architectural design.

ARCH 428 Selected Topics in Architectural History (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Special topics in the history of architecture.

ARCH 429 Independent Studies in Architectural History (1-4) Repeatable to 6 credits. Proposed work must have faculty sponsor and receive approval of the Curriculum Committee.

ARCH 433 History of Renaissance Architecture (3) Prerequisite: ARCH221 or permission of department. Renaissance architectural principles and trends in the 15th and 16th centuries and their modifications in the Baroque period.

ARCH 434 History of Modern Architecture (3) Prerequisite: ARCH221 or permission of department. Architectural trends and principles from 1750 to the present, with emphasis on developments since the mid-19th century.

ARCH 435 History of Contemporary Architecture (3) Prerequisite: ARCH221 or permission of department. Architectural history from World War II to the present.

ARCH 436 History of Islamic Architecture (3) Prerequisite: ARCH221 or permission of department. Survey of Islamic architecture from the seventh through the 18th-century.

ARCH 437 History of Pre-Columbian Architecture (3) Prerequisite: ARCH221 or permission of department. History of architecture of the western hemisphere from the Pre-Classic period through the Spanish conquest.
ARCH 442 Studies in the Vertical Surface (3) Prerequisite: ARCH401 or permission of department. Theories of analysis and design related to vertical surface. Exercises include documentation, analysis, and design of facades.

ARCH 443 Visual Communication For Architects (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: Admission to the 3 1/2 year M. ARCH program. Corequisite: ARCH400. For ARCH majors only. Investigation of the relationship between drawing from life and architectural drawing, the conventions of architectural drawing and the role of architectural drawing as a means to develop, communicate, and generate architectural ideas.

ARCH 445 Visual Analysis of Architecture (3) Two hours of lecture and two hours of studio per week. Prerequisite: ARCH400 or permission of department. For ARCH majors only. Study of visual principles of architectural and urban precedents through graphic analysis. Exercises include on-site observation, documentation and analysis. Focuses on the development of an architect's sketchbook as a tool for life-long learning.

ARCH 448 Selected Topics in Visual Studies for Architects (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs.

ARCH 449 Independent Studies in Visual Studies for Architects (1-4) Repeatable to 6 credits. Proposed work must have a faculty sponsor and receive approval of the Curriculum Committee.

ARCH 450 Introduction to Urban Planning (3) Introduction to city planning theory, methodology and techniques, dealing with normative, urban, structural, economic, social aspects of the city; urban planning as a process. Architectural majors or by permission of the instructor. Lecture, seminar, 3 hours per week.

ARCH 456 Great Cities (3) Prerequisite: permission of department. Case studies from a selection of the great cities of the world.

ARCH 458 Selected Topics in Urban Planning (1-4) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Proposed work must have a faculty sponsor and receive approval of the Curriculum Committee.

ARCH 459 Independent Studies in Urban Planning (1-4) Repeatable to 6 credits. Proposed work must have a faculty sponsor and receive approval of the curriculum committee.

ARCH 460 Site Analysis and Design (3) Prerequisite: ARCH400 or permission of department. For ARCH majors only. Principles and methods of site analysis; the influence of natural and man-made site factors on site design and architectural form.

ARCH 461 Sustainability in Architecture (3) Prerequisite: ARCH401 and ARCH410 or permission of department. Credit will be granted for only one of the following: ARCH418S or ARCH461. Formerly ARCH 418S. Strategies of sustainability as related to the broader context of architectural problem solving.

ARCH 470 Computer Applications in Architecture (3) Prerequisite: ARCH400 or permission of department. For ARCH majors only. Introduction to computer utilization, with emphasis on architectural applications.

ARCH 478 Selected Topics in Architecture (1-4) Prerequisite: permission of department. Repeatable to 6 credits if content differs.

ARCH 479 Independent Studies in Architecture (1-4) Repeatable to 6 credits. Proposed work must have a faculty sponsor and receive approval of the Curriculum Committee.

ARCH 480 Problems and Methods of Architectural Preservation (3) Prerequisite: ARCH420 or permission of department. Theory and practice of preservation in America, with emphasis on the problems and techniques of community preservation.

ARCH 481 The Architect in Archaeology (3) Prerequisite: permission of department. The role of the architect in field archaeology and the analysis of excavating, recording, and publishing selected archaeological expeditions.

ARCH 482 The Archaeology of Roman and Byzantine Palestine (3) Archaeological sites in Palestine (Israel and Jordan) from the reign of Herod the Great to the Moslem conquest.

ARCH 483 Field Archaeology (3) Prerequisite: permission of department. Participation in field archaeology with an excavation officially recognized by proper authorities of local government.
ARCH 488 Selected Topics in Architectural Preservation (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs.

ARCH 489 Independent Studies in Architectural Preservation (1-4) Repeatable to 6 credits. Proposed work must have a faculty sponsor and receive approval of the Curriculum Committee.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: AREC - Agricultural and Resource Economics
Course Number: Search

Courses in "AREC-Agricultural and Resource Economics"

AREC - Agricultural and Resource Economics

AREC 240 Introduction to Economics and the Environment (4) Costs and social impacts of pollution and human crowding in the modern environment. The economic, legal and institutional causes of these problems. Public policy approaches to solutions and the costs and benefits of alternative solutions.

AREC 250 Elements of Agricultural and Resource Economics (3) An introduction to economic principles of production, marketing, agricultural prices and incomes, farm labor, credit, agricultural policies, and government programs.

AREC 306 Farm Management (3) The organization and operation of the farm business to obtain an income
consistent with family resources and objectives. Principles of production economics and other related fields as applied to the individual farm business.

AREC 332 Introduction to Natural Resource Policy (3) Prerequisite: AREC240. Credit will be granted for only one of the following: AREC432 or AREC332. Formerly AREC 432. Development of natural resource policy and analysis of the evolution of public intervention in the use of natural resources. Examination of present policies and of conflicts between private individuals, public interest groups, and government agencies.

AREC 365 World Hunger, Population, and Food Supplies (3) An introduction to the problem of world hunger and possible solutions to it. World demand, supply, and distribution of food. Alternatives for leveling off world food demand, increasing the supply of food, and improving its distribution. Environmental limitations to increasing world food production.

AREC 382 Computer-Based Analysis in Agricultural and Resource Economics (3) One hour of lecture and three hours of laboratory per week. Prerequisites: MATH111/STAT100 or equivalent; ECON200/AREC240/AREC250 or equivalent. Credit will be granted for only one of the following: AREC182 or AREC382. Formerly AREC 182. Analysis of economic data using computer spreadsheets. Exercises include analyses of forest land shares, farmer willingness to pay, farm production planning, fisheries management, corn prices, and index numbers. Analyzes features use of cell formulas, spreadsheet functions, Excel's Data Analysis Tool and Solver. This is a lab course featuring experimental learning.

AREC 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

AREC 388 Honors Thesis Research (3-6) Prerequisite: admission to AGNR Honors Program. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

AREC 399 Special Problems (1-3) Repeatable to 6 credits if content differs. Concentrated reading and study in some phase of a problem in agricultural and/or natural resource economics.

AREC 404 Applied Price Analysis (3) Prerequisite: ECON306. An introduction to the economic analysis of price behavior, with applications to agricultural commodities. The use of price information in the decision-making process, the relation and supply and demand in determining price, and the relation of prices to grade, time, location, and stages of processing in the marketing system.

AREC 405 Economics of Production (3) Prerequisite: ECON306. The use and application of production economics in analysis of firm and policy decisions. Production functions, cost functions, multiple product and joint production, and production processes through time.

AREC 425 Economics of Food Sector (3) Prerequisite: ECON306 or permission of department. Credit will be granted for only one of the following: AREC425 or AREC489B. Formerly AREC 489B. Economic analysis of food sector issues, including food safety, agricultural biotechnology, and coordination mechanisms in the food supply chain.

AREC 427 Economics of Commodity Marketing Systems (3) Prerequisite: ECON306. Basic economic theory as applied to the marketing of agricultural commodities. Current developments affecting market structure including contractual arrangements, cooperative marketing, vertical integration, and governmental policies.

AREC 433 Food and Agricultural Policy (3) Prerequisite: ECON306. Economic and political context of governmental involvement in the farm and food sector. Historical programs and current policy issues. Analysis of economic effects of agricultural programs, their benefits and costs, and comparison of policy alternatives. Analyzes the interrelationship among international development, agricultural trade and general economic and domestic agricultural policies.

AREC 435 Commodity Futures and Options (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ECON306; BMGT230 or ECON321. The economics and institutional features of commodity futures and options markets. Students will develop a basic understanding of the underlying price relationships between cash and futures markets and will apply this information to business risk management decision making.

AREC 445 Agricultural Development, Population Growth and the Environment (3) Prerequisite: ECON306. Development theories, the role of agriculture in economic development, the agricultural policy environment, policies impacting on rural income and equity, environmental impacts of agricultural development.

AREC 453 Natural Resources and Public Policy (3) Prerequisite: ECON306. Rational use and reuse of natural resources. Theory, methodology, and policies concerned with the allocation of natural resources among alternative uses. Optimum state of conservation, market failure, safe minimum standard, and cost-benefit analysis.
AREC 455 Economics of Land Use (3) Prerequisite: ECON306. Fundamentals of location theory. Microeconomics of land use decisions, including determination of rent and hedonic pricing models. Impacts of government decisions on land use, including regulation (e.g., zoning), incentives (transferable development rights), provision of public services, and infrastructure investments. Impacts of land use on environmental quality, including issues relating to sprawl, agricultural land preservation, and other topics of special interest.

AREC 489 Special Topics in Agricultural and Resources Economics (3) Repeatable to 9 credits.
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Use the search box below to view the approved courses.

Select Program: ARHU - Arts and Humanities

Course Number: 

Search

Courses in "ARHU-Arts and Humanities"

ARHU - Arts and Humanities

ARHU 105 Honors Humanities First Semester Colloquium (1) Restricted to Honors Humanities students only. Reading and discussion of the personal and social value of higher education with special attention to Arts and Humanities

ARHU 106 Honors Humanities Second Semester Colloquium (1) Prerequisite: ARHU105. For Honors Humanities students only. Formerly ARHU 109. Exploration of the cultural and educational resources of campus and metropolitan area. Attendance at various additional events and activities is required.

ARHU 118 Honors Humanities First Year Seminar (3) One hour of lecture and two hours of
ARHU 205 Second Year Seminar in Honors Humanities (3) One hour of lecture and two hours of discussion/recitation per week. Prerequisite: Admission to Honors Humanities Program. Recommended: ARHU105 and ARHU106. Sophomore standing. Credit will be granted for only one of the following: ARHU218A or ARHU205. Formerly ARHU 218A. Seminar on basic issues and methodologies in the humanities and arts.

ARHU 206 Honors Humanities Research Semester (1) Restricted to Honors Humanities students only. Prerequisite: ARHU105, ARHU106 and ARHU205. Sophomore standing. Not open to students who have completed ARHU209. Credit will be granted for only one of the following: ARHU206 or ARHU209. Formerly ARHU 209. Independent research and completion of students' chosen Keystone Project developed during the preceding three semesters in ARHU105, ARHU 106 and ARHU205. Will meet as a class during the early part of the semester and discuss issues in humanities scholarship including theory, methodology and pedagogy.

ARHU 286 Experiential Learning (3-6) Prerequisite: Permission of the College of Arts and Humanities. Restricted to students that have earned 12 credits at UM; 2.5 GPA. On-campus internships cannot be taken for credit through ARHU 286 ("on-campus" includes both the University of Maryland and other college campuses). For ARHU majors only. Designed for ARHU students who wish to complete an internship in one of the academic fields covered within the College of Arts and Humanities.

ARHU 288 Seminar: Selected Issues in Honors Humanities (3) For Honors Humanities students only. Repeatable to 9 credits if content differs. Seminar on important topics in Arts and Humanities for students in the Honors Humanities Program.

ARHU 298 Special Problems in Arts and Humanities (3) Repeatable if content differs.

ARHU 299 Studies in Humanities Technology (1-3) Prerequisite: permission of instructor. Repeatable to 6 credits if content differs. Selected topics in the use of Information Technology in the Humanities.

ARHU 308 Critical Eras: An Interdisciplinary View (3) Repeatable to 6 credits if content differs. An interdisciplinary exploration of a critical period, ranging from a year to an era, stressing the relationship between different forms of human expression and the social milieu.

ARHU 309 Forms and Forces of Human Experience: An Interdisciplinary Exploration (3) Prerequisite: one course in at least one of the departments participating in the particular section. Repeatable to 6 credits if content differs. An interdisciplinary analysis of a particular social or cultural topic, attitude, or concern.

ARHU 318 Writers' House Colloquium: Creative Writing Across Languages (1-3) and Cultures Students must be admitted to the Jimenez-Porter Writers' House. Prerequisite: permission of department. Repeatable to 6 credits if content differs. Colloquium designed to improve students' skills in literary and communication arts through lectures and discussions on the history and craft of writing across cultures. Topics include poetry and fiction in translation, writing for different media, genre writing, autobiography and memoir, and publishing and publication: the history and future of the book. Regular class attendance, participation and some written work will be expected of students.

ARHU 319 Writers' House Second Year Colloquium: Form and Theory of Creative (1-3) Writing Repeatable to 6 credits if content differs. Required course for Writers' House students pursuing the notation program. Offered in either poetry or imaginative prose writing. Students work at the intermediate level, refining creative writing skills through cross-cultural reading and writing exercises. As part of the course, students attend a series of lectures and readings given by professional writers.

ARHU 328 Internship in Honors Humanities (1-3) Nine hours of laboratory per week. Prerequisite: ARHU105 and permission of the Honors Humanities Director. Sophomore standing. Repeatable to 3 credits. Supervised service-learning in Honors Humanities.

ARHU 329 Undergraduate Teaching Assistantship in Honors Humanities (1-3) Nine hours of laboratory per week. Prerequisites: ARHU105, ARHU106, ARHU205 and permission of the HONHUM Director. Supervised pedagogical service-learning in the Honors Humanities curriculum.

ARHU 338 Undergraduate Teaching Assistantship in the Writers' House (3) Two hours of lecture per week. Prerequisite: ARHU318 and ARHU319; Open to Writer's House students only. Sophomore standing. Repeatable to 6 credits if content differs. Offers exceptional students the opportunity to work closely with a Writer's House faculty member and gain valuable experience. Writers' House UTAs also serve as peer mentors and program leaders. The TA assists with course planning, research, and student advising (as appropriate). Open to graduates of Writer's House notation program.

ARHU 386 Experiential Learning (3-6) Prerequisite: permission of the college. Junior standing.
ARHU 388 Seminar: Advanced Honors Humanities (3) For Honors Humanities students only. Repeatable to 9 credits if content differs. Advanced seminar on issues in Arts and Humanities for students in the Honors Humanities Program.

ARHU 390 Cross-Cultural Perspectives on Quality (3) Third course in one of four courses in the QUEST program. Examines strategic quality management in a globalized setting with emphasis on cross-cultural communication and culturally influenced perception of quality. One of four courses in the QUEST curriculum.

ARHU 439 Interdisciplinary Studies in Arts and Humanities (3) Repeatable to 6 credits if content differs. An interdisciplinary exploration of chronological, geographical or thematic topics in Arts and Humanities.

ARHU 468 Peer Mentoring Program (1) Prerequisite: permission of department. Sophomore standing. Repeatable to 3 credits if content differs. A workshop for sophomore, junior or senior students who wish to serve as peer mentors aiding first-year students to cope with the numerous issues which often arise in the transition to the university.

ARHU 498 Special Topics in Arts and Humanities (3) Repeatable if content differs.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: ARMY - Army

Course Number: Search

Courses in "ARMY-Army"

ARMY - Army

ARMY 101 Basic Military Science I (1) One hour of lecture and two hours of laboratory per week. An exploration of leadership application through classroom instruction, leadership training and mentorship, adventure exercises and camaraderie. Hands on experience in managerial operations and military techniques. Applied military customs and techniques through physical and mental training.

ARMY 102 Basic Military Science II (1) One hour of lecture and two hours of laboratory per week. The continuation of the exploration of leadership application through classroom instruction, leadership training and mentorship, adventure exercises and camaraderie.
ARMY 201 Basic Military Science III (2) One hour of lecture and two hours of laboratory per week. Introduction to a detailed view and application of army branches, staff techniques, customs and traditions. The course includes a laboratory period in applied leadership, common military tasks and physical fitness.

ARMY 202 Basic Military Science IV (2) One hour of lecture and two hours of laboratory per week. Provides a greater awareness of Army leadership, advanced military tasks, customs and traditions of the U.S. Army and the Department of Defense. Includes a laboratory period in applied leadership, common military tasks and physical fitness.

ARMY 301 Advanced Military Leadership I (3) Three hours of lecture and five hours of laboratory per week. Prerequisite: Permission of Army ROTC. Junior standing. Reinforces understanding and application of Army leadership strategies, critical decision making methodologies, physical and mental fitness excellence. Includes a laboratory period in applied leadership, common military tasks and physical fitness.

ARMY 302 Advanced Military Leadership II (3) Three hours of lecture and five hours of laboratory per week. Prerequisite: Permission of Army ROTC. Junior standing. Prepares contracted students for certification at the Army National Advance Camp, a prerequisite for commissioning as an officer in the U.S. Army. Focus is directed to military tactics, squad and platoon drills, marksmanship, land navigation and fitness excellence. Includes a laboratory period in applied leadership skills as well as a three day field exercise.

ARMY 401 Advanced Military Leadership III (3) Three hours of lecture and five hours of laboratory per week. Prerequisite: Permission of Army ROTC. Senior standing. Introduces contracted students to the study of Army structure, practices and processes exercised by Army Commanders and Staff in completing personnel, logistics, training and combat operations. Includes a laboratory in applied leadership skills and two field exercises.

ARMY 402 Advanced Military Leadership IV (3) Three hours of lecture and five hours of laboratory per week. Prerequisite: Permission of Army ROTC. Senior standing. The military system and code of ethics in the military environment is studied. Topics include code of conduct during all forms of military operations, the Geneva Conventions and the ethical decision making process. Also includes a laboratory in applied leadership skills, fitness excellence and two field exercises.

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Select Program: ARSC - Air Science

Course Number: 

Search

Courses in "ARSC-Air Science"

ARSC - Air Science

ARSC 059 Air Force Officer Lab (1) Two hours of laboratory per week. This course does not carry credit towards any degree at the University. Repeatable to 8 credits if content differs. Formerly ARSC 159. Offers Air Force ROTC cadet officer’s practical experience in military leadership, management, organization, and customs. May include visits to military installations and flight orientation. Open only to AFROTC cadets.

ARSC 100 The USAF Today I (1) Freshmen course for AFROTC cadets. Study of topics relating to the Air Force and defense. Focuses on organizational structure and missions of the Air Force; officership; and an introduction to both written and oral communication skills. Open to all university students. AFROTC cadets must also register for ARSC059.
ARSC 101 The USAF Today II (1) Continuation of ARSC100 for freshmen AFROTC cadets. The mission, organization and systems of the U.S. Air Force offensive, defensive, and aerospace support forces and the use of these forces to support contemporary societal demands. Open to all university students. AFROTC cadets must also register for ARSC059.

ARSC 200 The Development of Air Power I (1) Sophomore course for AFROTC cadets. Study of factors contributing to the development of air power from its earliest beginnings through two world wars; the evolution of air power concepts and doctrine; introductory leadership; and assessment of communicative skills. Open to all university students. AFROTC cadets must also register for ARSC059.

ARSC 201 The Development of Air Power II (1) Continuation of ARSC 200 for sophomore AFROTC cadets. The study of historical events, leaders, and technical developments which surrounded the growth of air power; the basics of leadership; environment of an Air Force officer; and concepts of ethical behavior. Open to all university students. AFROTC cadets must also register for ARSC059.

ARSC 205 The U.S. Air Force and Air Power (4) Open only to applicants selected by AFROTC to compete for entrance into the two-year AFROTC program as a contract cadet. Six week field training session held during summer months at designated Air Force bases. Successful completion is a pre-requisite for acceptance into the two year AFROTC program. Course content consists of a combination of academics, physical training and leadership laboratory experiences approximating those four year cadets gain in ARSC100/101 and ARSC200/201.

ARSC 210 Field Training (2) 18 hours of lecture, 18 hours of laboratory, and 10 hours of discussion/recitation per week. Prerequisite: AFROTC cadets with permission of department. Sophomore standing. Designed to train Air Force officer candidates in the skills of leadership, teamwork, officership, and the profession of arms. Successful completion is mandatory for all candidates in order to complete the AFROTC program and attain an Air Force commission.

ARSC 300 Management and Leadership I (3) Corequisite: ARSC059 or permission of department. Junior standing. Credit will be granted for only one of the following: ARSC300 or ARSC310. Formerly ARSC 310. The study of leadership and management fundamentals, professional knowledge, Air Force doctrine, and written and oral communication skills. Case studies are used to examine leadership and management situations.

ARSC 301 Management and Leadership II (3) Corequisite: ARSC059 or permission of department. Junior standing. Credit will be granted for only one of the following: ARSC301 or ARSC311. Formerly ARSC 311. Continuation of ARSC300. Study of leadership and management skills and leadership ethics as well as written and oral communication skills required of Air Force officers.

ARSC 399 Independent Study in Air and Space Power Implementation (1-3) Prerequisite: permission of department. Recommended: ARSC400 and ARSC401. Independent study to broaden understanding of the implementation of air and space power. Topics of research are selected by the student and instructor to focus the student on a particular aspect of air and space power implementation during a particular campaign or conflict.

ARSC 400 National Security Forces in Contemporary American Society I (3) Prerequisite: ARSC300 or ARSC301; or permission of department. Corequisite: ARSC059 or permission of department. Senior standing. Credit will be granted for only one of the following: ARSC320 or ARSC400. Formerly ARSC 320. Study of American national security policy and processes to include information and implementation, impact of major national and international actors, and development of major policy issues.

ARSC 401 National Security Forces in Contemporary American Society II (3) Prerequisite: ARSC300 or ARSC301; or permission of department. Corequisite: ARSC059 or permission of department. Senior standing. Credit will be granted for only one of the following: ARSC321 or ARSC401. Formerly ARSC 321. This course examines various subjects including: military law/justice, preparation for active duty, and current issues affecting military professionalism.

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Select Program: ARTH - Art History & Archaeology

Course Number: __________________________

Search

Courses in "ARTH-Art History & Archaeology"

ARTH - Art History & Archaeology

ARTH 100 Introduction to Art (3) No credit toward the major can be received for this course. Major approaches to understanding the visual arts, and includes analysis of techniques, subject matter, and form. Painting, sculpture, architecture, and the graphic arts.

ARTH 200 Art of the Western World to 1300 (3) Painting, sculpture, and architecture from prehistoric times to the Renaissance.

ARTH 201 Art of the Western World after 1300 (3) Painting, sculpture, and architecture from the Renaissance to the present.
ARTH 250 Art and Archaeology of Ancient America (3) Art and archaeology of ancient Mesoamerica from 500 B.C. to 1500 A.D.

ARTH 275 Art and Archaeology of Africa (3) Appreciation of the art of African cultures. A survey of African culture through painting, sculpture, and architecture from prehistoric times to the present.

ARTH 289 Special Topics in Art History and Archaeology (3) Repeatable to 6 credits if content differs. Selected topics in the visual arts to introduce students to the history of various modes of visual expression and communication.

ARTH 290 Art of Asia (3) South and East Asian art from prehistory through the mid-19th century.

ARTH 300 Egyptian Art and Archaeology (3) Formerly ARTH 400. Sites and monuments of painting, sculpture, architecture, and the minor arts of ancient Egypt from earliest times through the Roman conquest. Emphasis on the pharaonic period.

ARTH 301 Aegean Art and Archaeology (3) Formerly ARTH 401. Sites and monuments of painting, sculpture, architecture, and the minor arts of Crete, the Cycladic islands, and the Greek mainland from the earliest times to the downfall of the Mycenaean empire.

ARTH 302 Greek Art and Archaeology (3) Formerly ARTH 402. Sites and monuments of painting, sculpture, architecture, and the minor arts from the Geometric through the Hellenistic period with emphasis on mainland Greece in the Archaic and Classical periods.

ARTH 303 Roman Art and Archaeology (3) Formerly ARTH 403. Sites and monuments of painting, sculpture, architecture, and the minor arts from the earliest times through the third century A.D. with emphasis on the Italian peninsula from the Etruscan period through that of Imperial Rome.

ARTH 307 Late Roman and Early Christian Art and Archaeology (3) Formerly ARTH 405. Painting, sculpture, architecture, and the minor arts from the early third century through the sixth century A.D.

ARTH 310 Byzantine Art and Archaeology (3) Formerly ARTH 406. Painting, sculpture, architecture, and the minor arts from the seventh century to 1453 A.D.

ARTH 313 Early Medieval Art (3) Formerly ARTH 410. Painting, sculpture and architecture in Western Europe, ca. 500-1150.

ARTH 314 Gothic Art (3) Formerly ARTH 411. Painting, sculpture and architecture in Western Europe, ca. 1150-1400.

ARTH 320 Fourteenth and Fifteenth-Century Northern European Art (3) Formerly ARTH 420. The art of northern Europe with an emphasis on painting in the Netherlands and France.


ARTH 322 Fifteenth-Century Italian Renaissance Art (3) Formerly ARTH 415. Painting, sculpture, architecture, and the decorative arts of the fifteenth century in Italy.

ARTH 324 Sixteenth-Century Italian Renaissance Art (3) Formerly ARTH 416. Painting, sculpture, architecture, and the decorative arts of the sixteenth century in Italy.

ARTH 330 Seventeenth-Century European Art (3) Formerly ARTH 430. Painting, sculpture and architecture concentrating on Italy, Spain, France, and England.

ARTH 335 Seventeenth-Century Art in the Netherlands (3) Formerly ARTH 435. Painting, sculpture and architecture in seventeenth-century Netherlands.

ARTH 343 Eighteenth-Century European Art (3) Formerly ARTH 443. From the Rococo to Neoclassicism, major developments in painting, architecture, sculpture, and the landscape garden in eighteenth-century France, England, Italy, Spain, and Germany.

ARTH 345 Nineteenth-Century European Art to 1850 (3) Formerly ARTH 445. The major trends from Neo-Classicism to Romanticism in painting, sculpture, and architecture in Europe.

ARTH 346 Nineteenth-Century European Art from 1850 (3) Formerly ARTH 446. The major trends from Realism through Impressionism to Symbolism and Art Nouveau, in painting, sculpture, and architecture.
ARTH 350 Twentieth-Century Art to 1945 (3) Formerly ARTH 455. Painting, sculpture, and architecture in Europe and America from the late nineteenth century to the end of World War II.

ARTH 351 Twentieth Century Art from 1945 (3) Formerly ARTH 456. Painting, sculpture, and architecture in Europe and America from 1945 to the present.

ARTH 360 History of American Art to 1876 (3) Formerly ARTH 453. Painting, sculpture, architecture, and decorative arts in North America from the colonial period to 1876.

ARTH 361 American Art Since 1876 (3) Formerly ARTH 460. Painting, sculpture, architecture, and the decorative arts in North America after 1876.

ARTH 370 Latin American Art and Archaeology before 1500 (3) Formerly ARTH 470. Pre-Hispanic painting, sculpture, and architecture, with a focus on the major archaeological monuments of Mexico.

ARTH 371 Latin American Art and Archaeology After 1500 (3) Formerly ARTH 471. The effect of mingling European visual ideas with pre-Hispanic traditions. The formation of Latin American colonial art. How Native American people transformed European ideas and forms.

ARTH 375 Ancient Art and Archaeology of Africa (3) Formerly ARTH 475. Art of the African continent from rock art through the nineteenth century. The cultural meaning of painting, sculpture, architecture, and artifacts from major archaeological sites.

ARTH 376 Living Art of Africa (3) Formerly ARTH 476. Art styles among the segmentary, centralized, and nomadic people of Africa. The iconography and function of their art and its relationship to their various societies, cults and ceremonies.

ARTH 378 Special Topics for Honors Students (3) Prerequisites: admission to art history honors and permission of department. For ARTH majors only. Repeatable to 6 credits. Writing of a research paper. With an instructor's permission work may be done in conjunction with a graduate colloquium or seminar.

ARTH 384 Art of Japan (3) Formerly ARTH 395. A chronological survey of Japanese painting, sculpture, architecture, and the applied arts.

ARTH 385 Art of China (3) Formerly ARTH 390. A chronological survey of Chinese painting, sculpture, and the applied arts.

ARTH 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

ARTH 389 Special Topics in Art History and Archaeology (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs.

ARTH 407 Art and Archaeology of Mosaics (3) Mosaic pavements in their archaeological, art historical, and architectural context from circa 300 B.C. through circa A.D. 700.

ARTH 418 Special Problems in Italian Renaissance Art (3) Repeatable to 6 credits if content differs. Focus upon aspects of painting, sculpture, and architecture of Renaissance.

ARTH 426 Renaissance and Baroque Sculpture in Northern Europe (3) Sculpture in France, Germany, England, and the Low Countries from the fourteenth to the seventeenth century.

ARTH 444 British Painting, Hogarth to the Pre-Raphaelites (3) A survey of British painting focusing on the establishment of a strong native school in the genres of history painting, narrative subjects, portraiture, sporting art, and landscape.

ARTH 452 Between East and West: Modernism in East and Central Europe (3) Explores the modernist movements of Eastern and Central Europe, beginning with Russia, circa 1861.

ARTH 457 History of Photography (3) History of photography as art from its inception in 1839 to the present.

ARTH 462 Twentieth-Century Black American Art (3) Formerly ARTH 474. The visual arts of Black Americans in the twentieth century, including crafts and decorative arts.

ARTH 466 Feminist Perspectives on Women in Art (3) Also offered as WMST466. Credit will be granted for only one of the following: ARTH466 or WMST466. Principal focus on European and American women artists of the 19th and 20th centuries, in the context of the new scholarship on women.
ARTH 485 Chinese Painting (3) Formerly ARTH 490. Chinese painting history from the second century B.C. through the twentieth century, covering cultural, stylistic and theoretical aspects.

ARTH 486 Japanese Painting (3) Formerly ARTH 495. Japanese painting from the sixth through the nineteenth century, including Buddhist icon painting, narrative scrolls, and Zen-related ink painting.

ARTH 488 Colloquium in Art History (3) Prerequisite: permission of department. Repeatable to 9 credits if content differs. Colloquium to investigate a specific topic in depth.

ARTH 489 Special Topics in Art History (3) Prerequisite: permission of department. Repeatable to 9 credits if content differs.

ARTH 494 Archaeological Theories, Methods, and Practice (3) 45 semester hours. Formerly ARTH 484. An examination of the theories, methods, and practices of New and Old World archaeology.

ARTH 496 Methods of Art History and Archaeology (3) Prerequisite: permission of department. For ARTH majors only. Methods of research and criticism applied to typical art-historical/ archaeological problems, familiarizing the student with bibliography and other research tools. Introduction to the historiography of art history and archaeology, surveying the principal theories, encouraging methodological debates within the discipline. Course for majors who intend to go on to graduate school.

ARTH 498 Directed Studies in Art History I (2-3) Prerequisite: permission of department. Repeatable if content differs. Junior standing.

ARTH 499 Honors Thesis (1-6) Prerequisite: permission of department. Repeatable to 6 credits if content differs.
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Select Program:  ARTT - Art Studio
Course Number:    
Search
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Courses in "ARTT-Art Studio"

**ARTT - Art Studio**

- **ARTT 100 Two Dimensional Art Fundamentals (3)** Six hours of laboratory per week. Credit will be granted for only one of the following: ARTT100, ARTS100, DESN101, or APDS101. Formerly ARTS 100. Principles and elements of pictorial space examined through the manipulation and organization of various materials.

- **ARTT 110 Elements of Drawing I (3)** Six hours of laboratory per week. Formerly ARTS 110. Media and related techniques to depict still-life, figure, and nature.

- **ARTT 150 Introduction to Art Theory (3)** Examination of contemporary art; review of global, philosophic
and critical positions by the examination of works of art.

**ARTT 200 Three Dimensional Art Fundamentals (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: ARTT100 and ARTT110. Credit will be granted for only one of the following: ARTT200, ARTS200, DESN102, or APDS102. Formerly ARTS 200. Three-dimensional form and space examined through the manipulation and organization of various materials.

**ARTT 208 Intermediate Special Topics in Art (3)** Six hours of laboratory per week. Prerequisites: ARTT110; and ARTT200. Repeatable to 6 credits if content differs. Formerly ARTS 208. Development of student’s work on an intermediate studio level within the context of a special topic.

**ARTT 210 Elements of Drawing II (3)** Six hours of laboratory per week. Prerequisite: ARTT110. Formerly ARTS 210. Continuation of ARTT110 with additional emphasis on pictorial space.

**ARTT 320 Elements of Painting (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Formerly ARTS 320. Basic tools and language of painting.

**ARTT 330 Elements of Sculpture: Metal Casting (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Formerly ARTS 330. Basic sculptural techniques and processes related to metal casting.

**ARTT 331 Elements of Sculpture: Steel (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Basic techniques related to steel fabricated sculpture; torch cutting and welding, arc welding, and hot forging.

**ARTT 332 Elements of Sculpture: Stone (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Formerly ARTT 335. Basic sculptural techniques and processes using stone and related materials.

**ARTT 333 Elements of Sculpture: Wood and Mixed Media (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Basic sculptural techniques and processes using wood and mixed media.

**ARTT 334 Elements of Sculpture: Assembled Form and Material (3)** Six hours of laboratory per week. Examines sculptural concepts through a variety of materials, basic techniques and processes related to building and fabrication.

**ARTT 334 Elements of Printmaking: Intaglio (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Formerly ARTS 340. Basic techniques and processes related to etching, aquatint, and drypoint.

**ARTT 341 Elements of Printmaking: Woodcut and Relief (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Formerly ARTS 341. Basic techniques and processes related to woodcuts, linocuts, and other relief media.

**ARTT 342 Elements of Printmaking: Collagraphy (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Formerly ARTT 342. Basic techniques and processes related to collagraph printing.

**ARTT 343 Elements of Printmaking: Screen Printing (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Formerly ARTS 343. Basic techniques and processes related to serigraph and silkscreen printing.

**ARTT 344 Elements of Printmaking: Lithography (3)** Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Formerly ARTS 344. Basic techniques and processes related to drawing, preparing, and printing images on lithograph stones or plates.

**ARTT 350 Elements of Design (3)** Six hours of laboratory per week. Prerequisites: ARTT200, and ARTT210; and permission of department through portfolio review. Not open to students who have completed ARTT250. Credit will be granted for only one of the following: ARTT350 or ARTT250. Formerly ARTT 250. Investigation of basic design principles and methods. Introduction to basic typography, layout, illustration, exhibit design, and product/package design.

**ARTT 351 Elements of Graphic Design and Illustration (3)** Six hours of laboratory per week. Prerequisite: ARTT250 or ARTT350 or permission of instructor. Credit will be granted for only one of the following: ARTT350 or ARTT250. Instruction to visual communications, logo, multi-page publication, marketing graphics, as well as a variety of media and techniques of editorial illustration.
ARTT 352 Three Dimensional Graphics (3) Six hours of laboratory per week. Prerequisite: ARTT350 or permission of instructor. Graphic design and color concepts applied to three-dimensional objects and architectural environments. Presentations include scale drawings, scale models, and real size mock-ups.

ARTT 353 Elements of Photography (3) Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Introduction to black-and-white photography. Basic technical and aesthetic vocabulary, camera mechanics and darkroom techniques. Introduction to the photographic message and meaning in both fine art and design concept.

ARTT 354 Elements of Computer Graphics (3) Six hours of laboratory per week. Prerequisites: ARTT150, ARTT200, and ARTT210; or permission of department. Introduction to computer graphics, imaging, illustration and mixed media.

ARTT 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

ARTT 388 Issues in Teaching Art in Higher Education (1) One hour of discussion/recitation per week. Prerequisite: permission of department. Must be taken in conjunction with ARTT389. Junior standing. Repeatable to 2 credits if content differs. Individual contractual agreement with faculty/mentor. Individualized discussion addressing the issues of teaching art, while simultaneously assisting in the teaching of a specific department course offering. Must have previously received an A in the specified class.

ARTT 389 Department of Art Undergraduate Teaching Assistantship (3) Six hours of laboratory per week. Prerequisite: permission of department. Must be taken in conjunction with ARTT388 or EDUC388. Repeatable to 6 credits if content differs. Individual contractual agreement with faculty/mentor. Individualized assistantship in the teaching of a specified department course offering. Must have previously received an "A" grade for the class to be assisting.

ARTT 390 Department of Art Research Assistantship (3) Nine hours of laboratory per week. Prerequisite: permission of department. Repeatable to 6 credits if content differs. Individual contractual agreement with faculty/mentor. Individualized experiential learning developed in relation to art related research issues.

ARTT 418 Drawing (3) Six hours of laboratory per week. Prerequisite: ARTT210. Repeatable to 12 credits. Formerly ARTS 418. Original compositions from the figure and nature, supplemented by problems of personal and expressive drawing.

ARTT 428 Painting (3) Six hours of laboratory per week. Prerequisite: ARTT320. Repeatable to 12 credits. Formerly ARTS 428. Original compositions based upon nature, figure, still life and expressive painting emphasizing development of personal directions.

ARTT 438 Sculpture (3) Six hours of laboratory per week. Prerequisites: one 300-level sculpture course; and permission of department. Repeatable to 12 credits. Formerly ARTS 438. Continuation of 300-level elements of sculpture courses with emphasis on developing personal directions in chosen media.

ARTT 448 Printmaking (3) Six hours of laboratory per week. Prerequisites: one 300-level printmaking course; and permission of department. Repeatable to 12 credits. Formerly ARTS 448. Continuation of 300-level elements of printmaking courses with emphasis on developing personal directions in chosen media.

ARTT 449 Advanced Photography (3) Six hours of laboratory per week. Prerequisite: ARTT335. Repeatable to 12 credits if content differs. Advanced photographic techniques and theory. Digital photography, image and text, non-silver photography, instant photography, color photography, and other special tools.

ARTT 456 Computer Modeling and Animation (3) Six hours of laboratory per week. Prerequisite: ARTT354. Introduction to computer animation as a time-based artistic medium. Technical principles and processes involved in the creation of an animated short film; students will research the various ways in which computer animation can function as a time-based medium.

ARTT 458 Graphic Design (3) Six hours of laboratory per week. Prerequisites: ARTT350 and ARTT351. Repeatable to 12 credits if content differs. Advanced techniques and theory of graphic design. Image and text, poster, magazine, film, and television graphics, propaganda symbolism included.

ARTT 459 Three-Dimensional Design: Form and Function (3) Six hours of laboratory per week. Prerequisite: ARTT352. Repeatable to 12 credits if content differs. Advanced techniques and theory of product design, furniture design, exhibit design, and package design.

ARTT 460 Seminar in Art Theory (3) Senior standing. Exploration of relationship between content and processes of art in a contemporary multi-cultural context.
ARTT 461 Readings in Art Theory (3) Prerequisite: senior standing or permission of department. Reading and critical analysis in contemporary art.

ARTT 463 Principles and Theory: African-American Art (3) Not open to students who have completed ARTH474. Formerly ARTH 474. Principles basic to the establishment of aesthetic theories common to an ethnic or minority art examined through the works of art by Americans of African ancestry.

ARTT 464 Theory of Contemporary Global Art Making (3) Credit will be granted for only one of the following: ARTT464 or ARTT664. Theory of contemporary global art making. Influence of colonization, availability of material, and development of imagery.

ARTT 468 Seminar on the Interrelationship between Art and Art Theory (3) Prerequisite: Junior standing or permission of department. Repeatable to 6 credits if content differs. Formerly ARTS 468. The relationship between a student's work and the theoretical context of contemporary art.

ARTT 469 Professional Practice (3) Prerequisite: Senior standing or permission of department. Repeatable to 6 credits if content differs. Formerly ARTT 462. Business aspects of being an artist, with an emphasis on starting and maintaining a professional career.

ARTT 478 Papermaking (3) Six hours of laboratory per week. Prerequisite: permission of department. Repeatable to 6 credits if content differs. Traditional and contemporary Western papermaking techniques with emphasis on creative approaches and continued individual artistic growth.

ARTT 479 Computer Graphics (3) Six hours of laboratory per week. Prerequisite: ARTT354. Repeatable to 12 credits if content differs. Advanced techniques and theory of computer imaging, graphics, illustration, and mixed media.

ARTT 480H Honors Seminar (3) Prerequisites: Acceptance into Department Honors Program, completion of ARTT300 - 400H and 418H electives, and permission of department. Team-taught seminar focusing on relationship between student's work and the theoretical context of contemporary art.

ARTT 487 Capstone for Citation in Interdisciplinary Multimedia and Technology (1) Prerequisite: At least nine credits with the citation. Independent study: a paper or website synthesizing the various citation learning experiences.

ARTT 489 Advanced Special Topics in Art (3) Six hours of laboratory per week. Prerequisite: permission of department. Repeatable to 6 credits if content differs. Formerly ARTS 489. Development of student's work on an advanced studio level within the context of a special topic.

ARTT 498 Directed Studies in Studio Art (1-3) Prerequisite: permission of department. Repeatable to 12 credits if content differs. Formerly ARTS 498. Independent work. Meetings with faculty and studio time arranged.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: ASTR - Astronomy

Course Number: Search

Courses in "ASTR-Astronomy"

ASTR - Astronomy

ASTR 100 Introduction to Astronomy (3) Credit for ASTR100 cannot be obtained after, or simultaneously with, receiving credit for any astronomy course numbered 250 or higher. Credit will be granted for only one of the following: ASTR100 or ASTR101 or ASTR120. An elementary course in descriptive astronomy, especially appropriate for non-science students. Sun, moon, planets, stars and nebulae, galaxies, evolution.

ASTR 101 General Astronomy (4) Three hours of lecture, two hours of laboratory, and one hour of discussion/recitation per week. Credit for ASTR101 cannot be obtained after, or simultaneously with, receiving credit for any astronomy course numbered 250 or higher. Credit will be granted for only one of the following: ASTR100 or ASTR101 or ASTR120. Descriptive astronomy, appropriate for non-science majors. Sun, moon, planets, stars, nebulae, galaxies and evolution. Laboratory exercises include use of photographic material,
computer simulations, and observing sessions if weather permits.

**ASTR 111 Observational Astronomy Laboratory (1)** Two hours of laboratory per week. Corequisite: ASTR100. Not open to students who have completed ASTR101. Credit will be granted for only one of the following: ASTR111 or ASTR101. Two hours of laboratory per week. Single evening laboratory projects plus semester-long observing projects involving work both in and out of class. Lunar surface features; the nighttime sky; changing positions of sun, moon, planets; stellar spectra; observations of stars and nebulae in our galaxy.

**ASTR 120 Introductory Astrophysics - Solar System (3)** Pre- or corequisite: MATH115. Not open to students who have completed ASTR100 or ASTR101. Credit will be granted for only one of the following: ASTR100 or ASTR101 or ASTR120. For students majoring in astronomy or with a strong interest in science. Topics include development of astronomy, planetary orbits, electromagnetic radiation, telescopes as well as constituents and origin of the solar system (planets, satellites, comets, asteroids, meteoroids, etc.).

**ASTR 121 Introductory Astrophysics II - Stars and Beyond (4)** Three hours of lecture and two hours of laboratory per week. Prerequisites: MATH115 and ASTR120, or permission of department. Not open to students who have completed ASTR200. Credit will be granted for only one of the following: ASTR121 or ASTR200. For students majoring in astronomy or with a strong interest in science. Includes instrumentation, stellar properties, stellar evolution, structure of the galaxy, other galaxies, large scale structure, Big Bang Theory, and future of the universe.

**ASTR 220 Collisions in Space (3)** Not open to astronomy majors. Appropriate for non-science majors. Application of scientific method to the study of collisions in space. Impact cratering on planets and satellites. Possible implications for the Earth. Interactions between stars and galaxies. Possible effects due to supermassive black holes. Events like the 1994 comet crash on Jupiter and data from the Hubble Space Telescope will be highlighted.

**ASTR 288 Special Projects in Astronomy (1-3)** Prerequisite: permission of department. Repeatable to 6 credits. Independent study, short research projects, tutorial reading, and assisting with faculty research and teaching under special supervision.

**ASTR 300 Stars and Stellar Systems (3)** Prerequisites: ASTR100 or ASTR101 and completion of CORE Distributive Studies requirement in Mathematics and Sciences or permission of department. Designed primarily for non-science majors. Study of stars-types, properties, evolution, and distribution in space; supernovae, pulsars, and black holes.

**ASTR 310 Observational Astronomy (3)** Three hours of lecture and one hour of laboratory per week. Prerequisites: ASTR121; PHYS171 or PHYS161; or permission of department. For ASTR majors only. Introduction to current optical observational techniques, with brief coverage of infrared, ultraviolet, and x-ray techniques. Statistics, spherical trigonometry time, catalogs, geometrical and physical optics, telescopes, and optical instruments. Effects of the atmosphere. Practical work at the observatory using a CCS camera. Some nighttime observing sessions.

**ASTR 320 Theoretical Astrophysics (3)** Prerequisites: ASTR121; PHYS273 or PHYS270 and PHYS271 (Formerly: PHYS263); or permission of department. Application of selected physics concepts in an astrophysical context. Topics would include gravity (Keplerian motion, Virial theorem, Roche limit, dynamical friction); gas dynamics (hydrostatic equilibrium, stellar models, spiral density waves), thermodynamics and statistical physics (Boltzmann distribution, Wien displacement, convective instability, degenerate gas); atomic physics (quantum principles, H atom, permitted and forbidden lines); radiation processes (line radiation, opacity).

**ASTR 330 Solar System Astronomy (3)** Prerequisites: ASTR100 or ASTR101 and completion of CORE Distributive Studies requirement in Mathematics and Sciences or permission of department. Designed primarily for non-science majors. The structure of planets and of their atmospheres, the nature of comets, asteroids, and satellites. Comparison of various theories for the origin of the solar system. Emphasis on a description of recent data and interpretation.

**ASTR 340 Origin of the Universe (3)** Prerequisites: ASTR100 or ASTR101 and completion of the CORE Distributive Studies requirement in Mathematics and the Sciences or permission of department. Designed primarily for non-science majors. A study of our progression of knowledge about the universe. Topics include: early cosmological models, geocentric vs. heliocentric theory, curvature of space, Hubble's Law, Big Bang Theory, microwave background radiation, evolution of stars and galaxies, dark matter, active galaxies, quasars and the future of the universe.

**ASTR 380 Life in the Universe - Astrobiology (3)** Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: ASTR100 or ASTR101 and completion of CORE Distributive Studies requirement in Mathematics and Sciences or permission of department. Designed primarily for non-science majors. Study of the astronomical perspective on the conditions for the origin and existence of life in the universe.

**ASTR 386 Experiential Learning (1-3)** Prerequisite: permission of department. Junior standing.
ASTR 398 Special Topics in Astronomy (3) Prerequisite: junior standing or permission of department. Repeatable to 6 credits if content differs. This course is designed primarily for students not majoring in astronomy and is suitable for nonscience students. It will concentrate study in some limited field in astronomy which will vary from semester to semester. Possible subjects for study are the solar system, extragalactic astronomy and cosmology, the inconstant universe.

ASTR 399 Honors Seminar (1-16) Enrollment is limited to students admitted to the departmental honors program in astronomy. Credit according to work done.

ASTR 410 Radio Astronomy (3) Prerequisites: ASTR121; PHYS270 and PHYS271 (Formerly: PHYS263) or PHYS273; or permission of department. Introduction to current observational techniques in radio astronomy. The radio sky, radiophysics, coordinates and catalogs, antenna theory, Fourier transforms, interferometry and arrays, aperture synthesis, and radio detectors.

ASTR 415 Computational Astrophysics (3) Prerequisite: permission of department. Recommended: computer programming knowledge. For ASTR majors only. Credit will be granted for only one of the following: ASTR498C or ASTR415. Formerly ASTR 498C. Introduction to the most important computational techniques being used in research in astrophysics. Topics include modern high performance computer architectures, scientific visualization and data analysis, and detailed descriptions of numerical algorithms for the solution to a wide range of mathematical systems important in astrophysics.

ASTR 421 Galaxies (3) Prerequisite: ASTR121, PHYS270, and PHYS271 (Formerly: PHYS263) or PHYS273. For ASTR majors only. Credit will be granted for only one of the following: ASTR421 or ASTR498G. Formerly ASTR 498G. Introduction to structure, kinematics, and dynamics of normal and peculiar galaxies. Quantitative descriptions of normal spiral galaxies (like our Milky Way) and elliptical galaxies will be followed by more exotic considerations such as interacting and merging galaxies, and active galactic nuclei.

ASTR 422 Cosmology (3) Prerequisite: ASTR121, PHYS270, and PHYS271 (Formerly: 263) or PHYS273. For ASTR majors only. Credit will be granted for only one of the following: ASTR422 or ASTR498V. Formerly ASTR 498V. Introduction to modern cosmology. Topics include large scale structure of universe, the intergalactic medium, the nature of dark matter cosmological models and galaxy formation.

ASTR 430 The Solar System (3) Prerequisite: ASTR121 or ASTR200; PHYS270 and PHYS271 (Formerly: PHYS263) or PHYS273; or permission of department. Formation and evolution of the Solar System. Planetary surfaces, interiors, atmospheres, and magnetospheres. Asteroids, comets, planetary satellites, and ring systems. Emphasis on using basic physics to understand observed properties of the Solar System. Intended for students majoring in the physical sciences.

ASTR 450 Orbital Dynamics (3) Prerequisite: ASTR121; PHYS270 and PHYS271 (Formerly PHYS263) or PHYS273; or permission of department. Vectorial mechanics, motion in a central force field, gravitational and non-gravitational forces, the two-body and three-body problems, orbital elements and orbital perturbation theory, resonances in the solar system, chaos. Intended for students majoring in any of the physical sciences.

ASTR 498 Special Problems in Astronomy (1-6) Prerequisite: major in physics or astronomy or permission of department. Research or special study. Credit according to work done.

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Use the search box below to view the approved courses.

Select Program: BCHM - Biochemistry

Course Number: 

Search

Courses in "BCHM-Biochemistry"

BCHM - Biochemistry

**BCHM 261 Elements of Biochemistry (3)** Prerequisite: CHEM104 or CHEM233 or CHEM235. Not open to students who have completed BCHM461. For undergraduate students who desire a one-semester biochemistry course rather than a two-semester sequence. Basic chemistry and metabolism of most molecules of biological importance.

**BCHM 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**BCHM 461 Biochemistry I (3)** Prerequisite: {CHEM271 and CHEM272} or {CHEM276 and CHEM277}. A
grade of C (2.0) or better in all course prerequisites is required for majors in the College of Chemical and Life Sciences, and recommended for all students. Not open to students who have completed BCHM261 or BCHM463. Credit will be granted for only one of the following: BCHM261, BCHM461, or BCHM463. First semester of a comprehensive introduction to modern chemistry. Structure, chemical properties, and function of proteins and enzymes, carbohydrates, lipids, and nucleic acids. Basic enzyme kinetics and catalytic mechanisms.

**BCHM 462 Biochemistry II (3)** Prerequisite: BCHM461. A grade of C or better in the prerequisite is required for Life Science majors and recommended for all students. Not open to students who have completed BCHM463. Credit will be granted for only one of the following: BCHM462 or BCHM463. A continuation of BCHM 461. Metabolic pathways and metabolic regulation, energy transduction in biological systems, enzyme catalytic mechanisms.

**BCHM 463 Biochemistry of Physiology (3)** Prerequisite: {CHEM271 and CHEM272} or {CHEM276 and CHEM277}. A grade of C (2.0) or better in all course prerequisites for majors in the College of Chemical and Life Sciences, and recommended to all students. Not open to students who have completed BCHM461 or BCHM462. Credit will be granted for only one of the following: BCHM463 or {BCHM461 or BCHM462}. A one-semester introduction to general biochemistry. A study of protein structure, enzyme catalysis, metabolism, and metabolic regulation with respect to their relationship to physiology.

**BCHM 464 Biochemistry Laboratory (3)** One hour of lecture and five hours of laboratory per week. Prerequisite: BCHM461 or BCHM463. A grade of C or better in the prerequisite is required for Life Science majors and recommended for all students. Corequisite: BCHM465. BCHM, CHEM and Nutritional Sciences majors have first priority, followed by other life science majors. Biochemical and genetic methods for studying protein function. Site-directed mutagenesis and molecular cloning, protein purification, enzyme activity assays, computer modeling of protein structure.

**BCHM 465 Biochemistry III (3)** Prerequisite: BCHM461 or BCHM463. A grade of C or better in the prerequisite is required for Life Science majors and recommended for all students. Recommended: BCHM462. CORE Capstone (CS) Course. An advanced course in biochemistry. Biochemical approach to cellular information processing. DNA and RNA structure. DNA replication, transcription, and repair. Translation of mRNA to make proteins.

**BCHM 485 Physical Biochemistry (3)** Prerequisite: CHEM481. For BCHM majors only. Credit will be granted for only one of the following: CHEM482 or BCHM485. The application of physical chemistry to biochemical kinetics, modeling and simulation, polymer dynamics.

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Select Program: BIOE - Bioengineering
Course Number: 
Search

Courses in "BIOE-Bioengineering"

BIOE - Bioengineering

BIOE 120 Biology for Engineers (3) For BIOE majors only. A combination of lectures and discussions covering biology from a utilization perspective, and lectures on illustrative mathematical models that capture the essences of characteristics of living entities. The biology material will focus on: distinguishing engineering from biological science, principles form the sciences applicable to biology, typical biological responses to environmental stimuli, scaling of biological responses, and different means to utilize living entities.

BIOE 121 Biology for Engineers Laboratory (1) For BIOE majors only. This course will build on the material covered in BIOE120. Experiments conducted in this laboratory course will cover topics such as biomechanical principles, biochemical methods, genetics and selection, scaling, microcosm interactions, human factors and imaging.
BIOE 241 Biocomputation Methods (3) Prerequisite: permission of department. Credit will be granted for only one of the following: BIOE241 or ENBE241. Formerly ENBE 241. Application of computer technology to biological and natural resource systems considering engineering aspects. Designed to help students in the use of computer technology for problem solving. The course will cover 4-5 software packages important for later use by the student.

BIOE 332 Transport Processes (3) Prerequisite: MATH241 and MATH246. Credit will be granted for only one of the following: ENBE454, ENBE603, or BIOE332. Formerly ENBE 454. Fluid flow, heat transfer, and mass transfer with applications in medicine, environment, biotechnology, food, agriculture, and other biosystems. Design of solutions to current problems in biological engineering is emphasized.

BIOE 399 Independent Study in Bioengineering (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Independent study.

BIOE 404 Biomechanics (3) Prerequisite: BIOE120 and BIOE121. For BIOE majors only. Introduction to the fundamentals of biomechanics including force analysis, mechanics of deformable bodies, stress and strain, multiaxial deformations, stress analysis, and viscoelasticity. Biomechanics of soft and hard tissues.

BIOE 420 Biomedical Imaging (3) Prerequisite: BIOE120 and BIOE121. For BIOE majors only. Examines the physical principles behind major medical imaging modalities and new ways of using medical images for diagnosis and treatment.

BIOE 453 Introduction to Biological Materials (3) Prerequisite: ENES220 or equivalent. Credit will be granted for only one of the following: BIOE453 or ENBE453. Formerly ENBE 453. Basic engineering properties of biological materials, including animal tissues and agricultural products, and of traditional engineering materials such as metals, ceramics, alloys, and polymers. Course includes limited laboratory experiences.

BIOE 468 Selected Topics in Bioengineering (3) Prerequisite: BIOE120, BIOE121, and permission of department. Repeatable to 9 credits if content differs. Selected topics in Bioengineering will be covered and taught by a variety of department faculty.

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Select Program: BIOM - Biometrics

Course Number: Search

Courses in "BIOM-Biometrics"

BIOM - Biometrics

**BIOM 301 Introduction to Biometrics (3)** Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: MATH113 or MATH115. Descriptive statistics, introduction to probability, sampling, confidence interval estimation, hypothesis testing, simple regression and correlation. Emphasis on simple applications of statistical techniques and interpretation of statistical results.

**BIOM 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student’s internship sponsor. Junior standing.

**BIOM 402 Statistics for Human and Veterinary Medicine (3)** Prerequisite: BIOM301, PSYC200, or
STAT464. Junior standing. Not open to students who have completed BIOM401 or BIOM601. Credit will be granted for only one of the following: BIOM401, BIOM402, or BIOM601. Statistical methods commonly used in human and veterinary medicine will be covered. Topics include nonparametric statistics, survival data, simple factorial arrangements of treatments, completely randomized, blocked and stratified clinical trials, analysis of variance, sample size issues, multiple 2x2 tables, prevention trials, case-control and cohort studies, logistic and Poisson regression models.

BIOM 405 Computer Applications in Biometrics (1) Two hours of laboratory per week. Prerequisite: BIOM402 or equivalent. An introduction to computer applications for data analysis. This is equivalent to the computer lab of 601 and is required for students that have taken BIOM 301 and BIOM402 and wish to go directly into BIOM602.
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Select Program: BMGT - Business and Management

Course Number: Search

Courses in "BMGT-Business and Management"

BMGT - Business and Management

BMGT 110 Introduction to Business and Management (3) Not open to BMGT students who have completed 56 or more credit hours. All others may take it anytime. A survey of the field of business, including its environment, organization, overall and functional management and current issues and developments.

BMGT 190 Introduction to Design and Quality (4) Three hours of lecture and two hours of discussion/recitation per week. Prerequisite: permission of College. Also offered as ENES190. Credit will be granted for only one of the following: BMGT or ENES190. Exposes engineering and business students to the principles of total quality, using experiential team-learning and technology-aided approaches. The first of four courses in total quality.
BMGT 198 Special Topics in Business and Management (1-3) For BMGT majors only. Repeatable to 6 credits if content differs. Introductory special topics in business and management.

BMGT 201 Introduction to Business Computing (3) Two hours of lecture and one hour of laboratory per week. Not open to computer science students. 24 semester hours. For BMGT majors only. Basic literacy course using common business computer-based applications. Considers the use of computing applications such as Microsoft Excel, Access and Powerpoint in problem solving.

BMGT 220 Principles of Accounting I (3) Basic theory and techniques of contemporary financial accounting. Includes the accounting cycle and the preparation of financial statements for single owner and partnership forms of business organizations operating as service companies or merchandisers.

BMGT 221 Principles of Accounting II (3) Prerequisite: BMGT220. Basic theory and techniques of accounting for managerial decision making. Involves the introduction of the corporation and manufacturing operations. Includes cost-volume-profit analysis and capital budgeting. Introduces the topics of income taxation and international accounting.

BMGT 230 Business Statistics (3) Prerequisite: MATH113 or MATH115 or placement in MATH220 or higher. Not open to students who have completed BMGT231, ENEE324, or STAT400. Credit will be granted for only one of the following: AREC484, BIOM301, BMGT230, CNEC400, ECON321, EDMS451, GEOG305, GV PT 422, PSYC 200, SOCY 201, URSP 350, or TEXT 400. Introductory course in probabilistic and statistical concepts including descriptive statistics, set-theoretic development of probability, the properties of discrete and continuous random variables, sampling theory, estimation, hypothesis testing, regression and decision theory and the application of these concepts to problem solving in business and the application of these concepts to problem solving in business and management. This course does not meet requirements for management science and statistics majors.

BMGT 231 Statistical Models For Business (3) Prerequisite: MATH141 or permission of department. Required for Operations & Quality Management and Information Systems-Business majors. Credit will be granted for only one of the following: BMGT231, ENEE324, ENME392, or STAT400. These courses are not interchangeable. Please consult requirements or an advisor for what is acceptable in your program of study. An introductory course in statistical concepts, including probability from a naive set theory approach, random variables and their properties and the probability distributions of selected discrete and continuous random variables. The concepts of sampling and sampling distributions and the application of these concepts to estimation and hypothesis testing are included as are brief surveys of the regression and ANOVA models.

BMGT 290 Methods for Measuring Quality (3) Prerequisite: BMGT190 or ENES190. Also offered as ENES380. Provides engineering and business students an understanding of the need and use of measurement techniques that lead to continuous improvement. The second course of four courses in total quality.

BMGT 298 Special Topics in Business and Management (1-3) For BMGT majors only. Repeatable to 6 credits if content differs. Introductory special topics in business and management.

BMGT 301 Introduction to Information Systems (3) Three hours of lecture and one hour of discussion/recitation per week. CMSC majors will not receive credit for this course towards their upper level concentration in their CMSC major. All BMGT majors, including students who are a double major in CMCS, must complete BMGT301 for their BMGT degree. For BMGT majors only. Comprehensive overview of information systems (IS), which explores the strategic and tactical nature of IS. The basic concepts in analysing and designing information systems for business applications will be presented. Aspects of data management such as databases, data warehousing, data analysis, and data mining will be analyzed, and the basics of web page and web site design will be outlined. Students will also be introduced to modern information systems infrastructure such as telecommunications, networks, and information systems security. Knowledge of Excel or a similar spreadsheet tool.

BMGT 302 Business Computer Application Programming (3) Prerequisite: Proficiency in Microsoft Office, BMGT201, CMSC102, or CMSC103; or permission of department. Computer Science majors will not receive credit. For BMGT majors only. Considers characteristics of business data programming and common software development processes and practices. Covers the designing, writing, documenting and testing of an efficient, structured program in Visual Basic.

BMGT 305 Survey of Business Information Systems and Technology (3) For Information Systems-Business majors only. Computer Science majors will not receive credit. 53 semester hours. Introductory course for the decision and information science major. Covers the components of modern business information systems as well as the consequences of information technology on society and the environment.

BMGT 310 Intermediate Accounting I (3) Prerequisite: BMGT221. Comprehensive analysis of financial accounting topics related to financial statement preparation and external reporting.

BMGT 311 Intermediate Accounting II (3) Prerequisite: BMGT310. Continuation of BMGT310.

BMGT 321 Managerial Accounting (3) Prerequisite: BMGT221. A study of the basic concepts of product
costing and cost analysis for management planning and control. Emphasis is placed on the role of the accountant in organizational management, analysis of cost behavior, standard cost budgeting, responsibility accounting and relevant costs for decision-making.

**BMGT 323 Taxation of Individuals (3)** Prerequisite: BMGT221. Federal taxation of individuals focusing on income, exclusions, deductions, depreciation, credits and capital transactions. Property coverage includes the tax consequences of sales and dispositions of investment and business assets. Both tax planning and compliance issues are covered.

**BMGT 326 Accounting Systems (3)** Prerequisite: BMGT221 and (BMGT301 or BMGT201). A study of accounting systems and computer and communications technology.

**BMGT 332 Operations Research For Management Decisions (3)** Prerequisite: BMGT230 or BMGT231; or equivalent. Surveys the philosophy, techniques and applications of operations research to managerial decision-making. Techniques covered include: linear programming, transportation and assignment models, Markov processes and inventory and queuing models. Emphasis is placed on formulating and solving decision problems in the functional areas of management.

**BMGT 340 Business Finance (3)** Prerequisites: BMGT221; and (BMGT230 or BMGT231). Topics include: the principles and practices involved in the organization, financing and rehabilitation of business enterprises; the various types of securities and their use in raising funds, apportioning income, risk and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

**BMGT 343 Investments (3)** Prerequisite: BMGT340. An introduction to financial investments. Topics include: securities and securities markets; investment risks, returns and constraints; portfolio policies; and institutional investment policies.

**BMGT 350 Marketing Principles and Organization (3)** Prerequisite: ECON200 or ECON205. An introduction to the concepts and principles of marketing including the marketing of service and nonprofit organizations. Provides an overview of all the concepts in marketing including relationship marketing, product development, pricing, promotion, marketing research, consumer behavior, international marketing, distribution and internal marketing to employees.

**BMGT 351 Direct Marketing (3)** Three hours of lecture per week. Prerequisite: BMGT350. For BMGT majors only. Planning, execution and evaluation of direct marketing strategy. Analysis of direct marketing programs in the consumer, business-to-business, and international markets. Advantages and disadvantages of direct mail, catalog, telephone, and Internet marketing will be discussed. The roles of marketing research, database marketing, and financial management in direct marketing are examined. Examples are drawn from the marketing of for-profit and non-profit organizations.

**BMGT 353 Retail Management (3)** Prerequisites: BMGT220; and BMGT350. Planning and implementing retail marketing strategy. Store and nonstore (catalog, Internet) retailing. Evaluation of how environmental trends in the consumer market, competition, the economy and technology affect retail strategy in the U.S. and global market.

**BMGT 357 Retailing and Marketing Internship (3-6)** Prerequisites: BMGT350 and permission of department. For BMGT majors only. Supervised work experience with a firm engaged in marketing goods or services. Students apply concepts learned in marketing classes and analyze the firm's organizational structure, environment and marketing strategy.

**BMGT 360 Human Resource Management (3)** The basic course in human resource management includes manpower planning, recruitment, selection, development, compensation and appraisal of employees. Explores the impact of scientific management and unionism on these functions.

**BMGT 361 Entrepreneurship: Starting and Managing the Entrepreneurial Venture (3)** For BMGT majors only. Not open to students who have completed BMGT261 or BMGT461. Credit will be granted for only one of the following: BMGT261, BMGT361, or BMGT461. Formerly BMGT 261. Focuses on the early development of a new venture. Topics include: idea-getting, opportunity recognition, feasibility studies, new venture financing and startup. Guests speakers and practicing entrepreneurs offer real world guidance. Restricted to students admitted to the Smith Entrepreneurship Fellows Program.

**BMGT 362 Labor Relations (3)** A study of the development and methods of organized groups in industry with reference to the settlement of labor disputes. An economic and legal analysis of labor union and employer association activities, arbitration, mediation and conciliation collective bargaining, trade agreements, strikes, boycotts, lockouts, company unions, employee representation and injunctions.

**BMGT 364 Management and Organization Theory (3)** The development of management and organization theory, nature of the management process and function and its future development. The role of the manager as an organizer and director, the communication process, goals and responsibilities.
BMGT 365 Entrepreneurial Finance, and Private Equity (3) Prerequisite: BMGT361 or BMGT461. Junior standing. Studies venture capital and private equity using a combination of cases, lectures and guest speakers. Addresses how venture capitalists provide capital to start-up firms in growing industries and how private equity markets provide capital to help established medium-sized firms (often family businesses) grow and restructure. Focuses on how financial, legal, and economic issues are dealt with in the financial contracts between venture capitalists and their limited partners and between capitalists (or other private equity investors) and the firms in which they invest.

BMGT 366 Growth Strategies for Emerging Companies (3) Prerequisite: BMGT361 or BMGT461. Junior standing. Offers practical management tools that are needed to build a new venture into a significant enterprise. The competencies, strategies and structures of successful high performance businesses are studied through cases, videos and guest lecturers. Topics include leadership, internal growth strategies, merger, acquisition and franchising.

BMGT 367 Career Search Strategies in Business (1) One hour of lecture and one hour of laboratory per week. For BMGT majors only. An overview and opportunity to practice job search skills critical to obtaining internships and full-time positions. Course will cover strategies for exploring career options, preparing job search materials, development of job search skills such as interviewing and networking. Students are encouraged to take this course in the sophomore or junior year.

BMGT 370 Introduction to Transportation in Supply Chain Management (3) An overview of transportation with an emphasis on freight from the perspective of both carriers and users. Explores the financial, economic and governmental drivers of transportation. Develops the characteristics of the freight modes and examines their roles as major components of logistics and supply chain management.

BMGT 372 Introduction to Logistics and Supply Chain Management (3) The study of logistics and supply chain management involving the movement and storage of supplies, work-in-progress and finished goods. Logistics cost trade-offs with the firm and between members of the supply chain are examined.

BMGT 373 Logistics, Transportation, and Supply Chain Management Internship (3) Prerequisite: permission of department. Involves supervised work experience in supply chain management, logistics and/or transportation. Students will be expected to relate course material to work experience in an analysis of a firm's operations.


BMGT 381 Business Law II (3) Prerequisite: BMGT380 or permission of department. The Uniform Commercial Code, including sales, commercial paper, secured transactions, bulk sales and documents of title. The law of partnerships and corporations. Reorganization and liquidation under the bankruptcy laws. The law of real property, landlord and tenant relationships and decedents' estates.

BMGT 385 Operations Management (3) Studies the design, management and improvement of a firm's processes and systems for creation and delivery of products and services. Includes strategic and operational views of supply chain, product development, and capacity analysis, highlighting the competitive advantages that operations management can provide the firm.

BMGT 386 General Business Internship (3) Prerequisite: permission of department. For BMGT majors only. Supervised work experience in business. Students will be expected to relate course material to work experience in an analysis of a firm's operations.

BMGT 390 Competing on Quality in a Global Economy (3) Prerequisite: BMGT290 or ENES380. Also offered as ENES390. Examines strategic quality management in a globalized setting. Global marketing, international finance and cross cultural concepts will be emphasized. The third course of four courses in total quality.

BMGT 392 Introduction to International Business Management (3) Prerequisite: ECON200; or ECON205. A study of the domestic and foreign environmental factors affecting the international operations of U.S. business firms. The course also covers the administrative aspects of international marketing, finance and management.

BMGT 398 Individual Study in Business and Management (1-3) Prerequisite: permission of department. Repeatable to 6 credits.

BMGT 402 Database Systems (3) Prerequisite: BMGT301 or equivalent. Recommended: BMGT302. Introduction to basic concepts of database management systems. Relational databases, query languages and design will be covered. File-processing techniques are examined.

BMGT 403 Systems Analysis and Design (3) Prerequisite: BMGT301 or equivalent. Recommended: BMGT302. Techniques and tools applicable to the analysis and design of computer-based information
systems. System life cycle, requirements analysis, logical design of databases and performance evaluation. Emphasis on case studies. Project required that involves the design, analysis and implementation of an information system.

**BMGT 405 Business Telecommunications (3)** Prerequisite: BMGT301 or equivalent. Concepts of business data communications and data processing. Application of these ideas in computer networks, including basic principles of telecommunications technology, computer network technology, data management in distributed database systems and management of the technical and functional components of telecommunications technology.

**BMGT 406 Electronic Commerce Application Development (3)** Prerequisite: BMGT302 and BMGT402. For BMGT majors only. Develops understanding of the fundamental principles of usability as they apply to electronic commerce applications. Aspects of website evaluation are examined. Course will also cover the design of usable business websites using current tools and techniques.

**BMGT 407 Information Systems Projects (3)** Prerequisite: BMGT402 and BMGT403 For Information Systems-Business majors only. Senior standing. Senior capstone course for the decision and information sciences major. Collected knowledge from the DIS courses and application to significant problems of size and complexity. State-of-the-art research ideas and current business and industrial practices in information systems.

**BMGT 408 Special Topics in Decision and Information Technologies (3)** Prerequisite: permission of department (prerequisite may vary based on changing topics). Repeatable to 9 credits if content differs. Selected advanced topics in the various fields of study in decision and information technologies.

**BMGT 411 Ethics and Professionalism in Accounting (3)** Prerequisite: BMGT311. For accounting majors only. 86 semester hours. Analysis and discussion of issues relating to ethics and professionalism in accounting.

**BMGT 417 Taxation of Corporations, Partnerships and Estates (3)** Prerequisite: BMGT221. Federal taxation of corporations using the life-cycle approach-formation, operation, assessment, merger, reorganization and liquidation. Overviews of pass-through entities - partnerships and s-corporations -using the life-cycle approach, and the tax consequences of wealth transfers by individuals - gift and estate taxation. Both tax planning and compliance issues are addressed.

**BMGT 422 Auditing Theory and Practice (3)** Prerequisite: BMGT221. A study of the independent accountant's attest function, generally accepted auditing standards, compliance and substantive tests and report forms and opinions.

**BMGT 423 Fraud Examination (3)** Prerequisite: BMGT310. Covers fraud prevention, detection and investigation techniques. The traditional accounting areas of fraud-fraudulent financial accounting and misappropriation of assets as well as recent and historical cases of fraud will also be examined. Current fraud topics will be discussed.

**BMGT 424 Advanced Accounting (3)** Prerequisite: BMGT311. Advanced accounting theory applied to specialized topics and current problems. Emphasis on consolidated statements and partnership accounting.

**BMGT 426 Advanced Managerial Accounting (3)** Prerequisite: BMGT321. Advanced cost accounting with emphasis on managerial aspects of internal record-keeping and control systems.

**BMGT 428 Special Topics in Accounting (3)** For Accounting majors only. Prerequisite: BMGT310. Repeatable to 9 credits if content differs. Selected advanced topics in Accounting.

**BMGT 430 Linear Statistical Models in Business (3)** Prerequisite: BMGT230 or BMGT231 or permission of department. Model building involving an intensive study of the general linear stochastic model and the applications of this model to business problems. The model is derived in matrix form and this form is used to analyze both the regression and ANOVA formulations of the general linear model.

**BMGT 434 Introduction to Optimization (3)** Prerequisite: MATH220 or MATH140; or equivalent. Recommended: MATH221 or MATH141. For BMGT majors only. Introduces concepts and techniques of operations research to model and solve business decision problems, focusing on optimization and commercially available software tools. Models include linear programming, the transportation and assignment problems, network flow models, and non-linear programming. Emphasis is placed on analyzing business scenarios and formulating associated decision models.

**BMGT 435 Business Process Simulation (3)** Prerequisite: BMGT230 or BMGT231 or equivalent. For BMGT majors only. Develop and plan simulation studies, build simulation models with special purpose software, analyze and interpret the results. Extensive use of applications and real-world examples. The emphasis is on model formulation and the interpretation of results, rather than mathematical theory.
BMGT 440 Advanced Financial Management (3) Prerequisite: BMGT340. Analysis and discussion of cases and readings relating to financial decisions of the firm. The application of finance concepts to the solution of financial problems is emphasized.

BMGT 443 Applied Equity Analysis and Portfolio Management (3) Prerequisite: BMGT343. Study and application of the concepts, methods, models, and empirical findings to the analysis, valuation and selection of securities, especially common stock.

BMGT 444 Futures and Options Contracts (3) Prerequisite: BMGT343. Credit will be granted for only one of the following: BMGT444 and MATH424. The institutional features and economic rationale underlying markets in futures and options. Hedging, speculation, structure of futures prices, interest rate futures, efficiency in futures markets and stock and commodity options.

BMGT 445 Banking and Financial Institutions (3) Prerequisites: BMGT340. Recommended: ECON330. Analysis and discussion of cases and readings in commercial bank management. The loan function is emphasized; also the management of liquidity reserves, investments for income and source of funds. Bank objectives, functions, policies, organization, structure, services and regulation are considered.

BMGT 446 International Finance (3) Prerequisite: BMGT340. Financial management from the perspective of the multinational corporation. Topics covered include the organization and functions of foreign exchange and international capital markets, international capital budgeting, financing foreign trade and designing a global financing strategy. Emphasis of the course is on how to manage exchange and political risks while maximizing benefits from global opportunity sets faced by the firm.

BMGT 447 Internship and Research in Finance (3) Prerequisites: BMGT340 and BMGT343 (or 400 level finance elective); and core requirements in business and management; and permission of department. Recommended: finance major courses. For finance majors only. Supervised, sponsored internship in a corporation or financial institution. Analysis of approved research topic in corporate finance, investments or financial institutions/markets.

BMGT 450 Integrated Marketing Communications (3) Prerequisite: BMGT350. For BMGT majors only. Credit will be granted for only one of the following: BMGT354 or BMGT450. Formerly BMGT 354. In-depth study of coordinated marketing activities including advertising, sales promotion, Internet marketing, direct marketing and personal selling. Emphasizes strategic planning to effectively use these promotional tools to communicate with customers and meet marketing goals. Blends theory and current practice to provide managerial orientation.

BMGT 451 Consumer Analysis (3) Prerequisite: BMGT350. Recommended: PSYC100; and PSYC221. Identifying buyer behavior concepts relevant to a specific marketing problem so that appropriate marketing decisions can be made. Conceptual frameworks are drawn from psychology, sociology, economics, and other social sciences to aid in understanding the behavior of ultimate and industrial buyers.

BMGT 452 Marketing Research Methods (3) Prerequisites: BMGT230; and BMGT451. Focuses on aiding marketing decision-making through exploratory, descriptive and casual research. Develops student skills in evaluating and writing market research proposals, interpreting and analyzing subsequent reports and appraising their usefulness to managers; designing studies, including selection of data collection method, development of data collection instrument, sample design, collection and analysis of data and reporting the results.

BMGT 454 Global Marketing (3) Prerequisite: BMGT350. Marketing functions from the global executive's viewpoint, including coverage of global marketing policies relating to product development, data collection and analysis, channels of distribution, pricing, communications and cost analysis. Consideration is given to the cultural, legal, financial and organizational aspects of global marketing.

BMGT 455 Sales Management (3) Prerequisite: BMGT350. The roles of the sales executive as a planner, manager of resources and marketing functions and recruiter, trainer, motivator and leader of field sales personnel. Techniques and sequence of problem analysis for selling and sales management decisions and to the practical framework in which these decisions take place. Teaching vehicles feature strong classroom interactions, cases, journal articles, research findings, guest sales managers, debates, and modern company practices.

BMGT 457 Marketing Policies and Strategies (3) Prerequisite: BMGT350. This capstone course ties together various marketing concepts using the fundamentals of strategic market planning as the framework. Application of these principles is accomplished by analyzing and discussing cases and by playing a marketing strategy computer simulation game. Analysis of current business articles to understand the link between theory and real-world problem solving.

BMGT 460 Human Resource Management: Analysis and Problems (3) Prerequisite: BMGT360. Recommended: BMGT230. Research findings, special readings, case analysis, simulation and field investigations are used to develop a better understanding of personnel problems, alternative solutions and their practical ramifications.
BMGT 461 Entrepreneurship (3) Not open to students who have completed BMGT261 or BMGT361. Credit will be granted for only one of the following: BMGT261, BMGT361, or BMGT461. Process of creating new ventures, including evaluating the entrepreneurial team, the opportunity and the financing requirements. Skills, concepts, mental attitudes and knowledge relevant for starting a new business.

BMGT 462 Employment Law for Business (3) This course is restricted to BMGT majors with 72 hours completed. Legal framework of industrial relations with special emphasis on employment discrimination, i.e., wrongful termination, sex discrimination, sexual harassment, age discrimination, disability, etc.

BMGT 463 Cross-cultural Challenges in Business (3) For BMGT majors only. Examines in depth the nature of international cultural value-differences and their behavioral-related effects in the workplace. Topics include decision-making and leadership styles and reactions to various work assignments and reward structures.

BMGT 464 Organizational Behavior (3) Prerequisite: BMGT 364. An examination of research and theory concerning the forces which contribute to the behavior of organizational members. Topics covered include work group behavior, supervisory behavior, intergroup relations, employee goals and attitudes, communication problems, organizational change and organizational goals and design.

BMGT 465 Business Plan For The New Venture (3) Prerequisite: BMGT361 or BMGT461. Each student focuses on the production of a business plan that will be accepted for an annual business plan competition. Business plans of sufficient quality may be submitted to attract financing. Topics include a deep review of business construction and its derivative short forms.

BMGT 466 Global Business Strategy (3) For BMGT majors only. Focuses on the strategic challenges that directly result from and are associated with the globalization of industries and companies. Topics include drivers of industry globalization, difference between global and multi-domestic industry, global expansion strategies, sources of competitive advantage in a global context, and coordination of a company across a global network.

BMGT 467 Undergraduate Seminar in Human Resource Management (3) 86 semester hours. For BMGT majors only. Strategic human resource management, compensation and rewards and performance management skills. Guest lecturer presentations.

BMGT 470 Advanced Transportation Management (3) Prerequisite: BMGT370. An in-depth study of a wide range of transportation issues facing managers from the perspective of both carriers and users in the various modes and in multi-modal/inter-modal settings. Current U.S. and international transportation issues, including strategies, financing, service, competitive aspects and governmental policies/promotion, are reviewed and analyzed in the context of supply chain management.

BMGT 472 Advanced Logistics Operations (3) Prerequisite: BMGT372. Analysis of the operational aspects of logistics management, including purchasing policies, transportation planning and inventory control. Attention is directed toward total logistics cost minimization and the establishment of a sustainable competitive advantage based on logistical activities.

BMGT 475 Advanced Supply Chain Management Strategy and Technologies (3) Prerequisite: BMGT372. Analysis of the strategic aspects of supply chain management. Emphasis on the creation of end-user value through supply chain cost reductions, service improvements or both. Attention is directed toward the enabling role of technology in support of strategy evaluation and implementation.

BMGT 476 Applied Computer Models in Supply Chain Management (3) Prerequisites: BMGT370 and BMGT372. Introduction to the expanding base of computer software in the field of supply chain management. Applications include: demand planning and forecasting, transportation planning, warehouse management systems and other relevant modules.

BMGT 477 International Supply Chain Management (3) The study of the importance of the supply chain management concept within an international arena. Coverage of the structure, service, pricing and competitive relationships among international carriers and transport intermediaries, documentation, location decisions, international sourcing and distribution and management of inventory throughout the international supply chain.

BMGT 482 Business and Government (3) Prerequisite: ECON200; or ECON205. Focus is on the complex interrelationships between business and government. Explores areas in which business and government are allies (cooperative research and financing program) and adversaries (regulation). Emphasizes a strategic management approach by business to government involvement in economic affairs.

BMGT 484 Electronic Marketing (3) Prerequisite: BMGT350. For BMGT majors only. Examines the process of developing, implementing and analyzing strategies for successfully marketing a variety of existing and potential products and services on the Internet. Special attention devoted to the tools and techniques unique to the electronic media.
BMGT 485 Project Management (3) Prerequisite: BMGT230 or BMGT231; or equivalent. 72 semester hours. For BMGT majors only. Modern project management techniques that are used by modern practicing professionals will be covered. Particular attention is given to the management of technology based systems and projects in a business enterprise. The topics covered include: defining project scope, alignment of projects with enterprise strategy, managing project cost, time and risks using tools such as CPM/PERT, and measuring project performance.

BMGT 486 Total Quality Management (3) Prerequisite: BMGT230 or equivalent. Total Quality Management and the synergy required between functions to obtain the customer’s quality demands. Statistical tools which are mandatory in any successful quality effort.

BMGT 487 Six Sigma Innovation (3) Prerequisite: BMGT190H or ENES190H; and (BMGT230, BMGT231, STAT400 or ENME392). Six Sigma Innovation of products and processes via the Define-Measure-Analyze-Improve-Control (DMAIC) breakthrough improvement strategy is addressed. Emphasizes that quality and statistical tools and strategies of Six Sigma and requires their use in an applied business improvement project. Satisfactory completion of the course is equivalent to Six Sigma Red Belt certification representing content mastery and applications experience that exceeds the widely recognized and much in demand six Sigma Green Belt certification.

BMGT 490 The Total Quality Practicum (3) Prerequisite: BMGT390 or ENES390. Also offered as ENES490. Credit will be granted for only one of the following: BMGT490 or ENES490. Capstone course for the four-course total quality program. Based on a major project undertaken by student teams in an industry environment emphasizing integrative aspects of total quality, each project will be supervised by a joint faculty/industry team with differing areas of expertise. Requires extensive out-of-class work.

BMGT 493 Honors Study (3) Prerequisite: permission of department. First semester of the senior year. The course is designed for honors students who have elected to conduct intensive study (independent or group). The student will work under the direct guidance of a faculty advisor and the Assistant Dean of Undergraduate Studies. They shall determine that the area of study is of a scope and intensity deserving of a candidate’s attention. Formal written and/or oral reports on the study may be required by the faculty advisor.

BMGT 494 Honors Study (3) Prerequisite: BMGT493, and continued candidacy for honors in Business and Management; and permission of department. Second semester of the senior year. The student shall continue and complete the research initiated in BMGT 493, additional reports may be required at the discretion of the faculty advisor and Assistant Dean of Undergraduate Studies.

BMGT 495 Business Policies (3) Prerequisites: BMGT340; and BMGT350; and BMGT364. For BMGT majors only. A case study course where students apply what they have learned of general management principles and their specialized functional applications to the overall management function in the enterprise.

BMGT 496 Business Ethics and Society (3) Prerequisite: one course in BMGT; or permission of department. A study of the standards of business conduct, morals and values as well as the role of business in society with consideration of the sometimes conflicting interests of and claims on the firm and its objectives. Emphasizes a strategic approach by business to the management of its external environment.

BMGT 498 Special Topics in Business and Management (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Special topics in business and management designed to meet the changing needs and interests of students and faculty.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

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<td>200-299</td>
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Use the search box below to view the approved courses.

Select Program: BSCI - Biological Sciences Program

Course Number: ____________

Search

Courses in "BSCI-Biological Sciences Program"

BSCI - Biological Sciences Program

BSCI 103 The World of Biology (4) Three hours of lecture and three hours of laboratory per week. Formerly: BIOL101 and BIOL102. An introduction to modern biology for the non-science major. Major themes include molecular biology, cell biology, evolution and organismal biology. Relevance of study of biology to modern human life will be emphasized. Course not acceptable toward degree in College of Chemical and Life Sciences.

BSCI 105 Principles of Biology I (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: placement in MATH110 or higher. For science majors. Formerly BIOL 105. Basic principles of biology with special emphasis on cellular and molecular biology.
BSCI 106 Principles of Biology II (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: MATH110 placement. For science majors. Formerly BIOL 106. Basic principles of biology with special emphasis on organismal, ecological and evolutionary biology.

BSCI 120 Insects (3) Two hours of lecture and one hour of discussion/recitation per week. Formerly ENTM 100. A survey of the major groups of insects, their natural history, and their relationships with humans and their environment. Course not acceptable toward major requirements in the College of Chemical and Life Sciences.

BSCI 121 Beekeeping (2) Formerly ENTM 111. First semester. A study of the life history, behavior and seasonal activities of the honeybee, its place in pollination of flowers with emphasis on plants of economic importance and bee lore in literature. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 122 Microbes and Society (4) Three hours of lecture and two hours of laboratory per week. Credit will be granted for only one of the following: BSCI112 or BSCI223. Formerly MICB 100. Introduction to the historical, societal and conceptual aspects of microbiology and biotechnology. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 124 Plant Biology for Non-Science Students (3) For non-science majors only. Not open to students who have completed BSCI105/BIO105. Formerly PBIO 100. A basic course in plant biology specifically designed for the non-science student. Emphasis is placed on an evolutionary and ecological approach to studying fundamental concepts and processes of plants, their place in the biosphere, the importance of plants to man, and the manner in which humans impact on plants and their environment. This course will not count toward graduation requirements for any student in the College of Chemistry and Life Sciences or the College of Agriculture and Natural Resources.

BSCI 125 Plant Biology Laboratory (1) Two hours of laboratory per week. Corequisite: BSCI124. For non-science majors only. Not open to students who have completed BSCI105. Credit will be granted for only one of the following: BSCI105 or BSCI125. Formerly PBIO 101. An introduction to the biology of plants with emphasis on the processes by which plants function, the diversity of plants, and the importance of plants to humans. This course will not count toward graduation requirements for any student in the College of Chemistry and Life Sciences or the College of Agriculture and Natural Resources. CORE Lab Science.

BSCI 201 Human Anatomy and Physiology I (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: BSCI105 or equivalent. Formerly ZOOL 201. Anatomy and physiology of the skeletal, muscular, neural, endocrine, and sensory systems. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 202 Human Anatomy and Physiology II (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: BSCI201 or permission of department. Formerly ZOOL 202. Anatomy and physiology of the cardiovascular, respiratory, immune, digestive, urinary and reproductive systems. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 205 Environmental Science (3) Formerly PBIO 235. Basic ecological principles as they relate to the ecological dilemmas of overpopulation, pollution, increasing consumption of natural resources, and deteriorating land use ethics facing mankind today. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 206 Chesapeake: A Living Resource (3) Credit will be granted for only one of the following: BSCI206 or BSCI173. Formerly PBIO 255. The living resources of the Chesapeake Bay from an ecosystem perspective. Designed for non-science majors, it will acquaint students with the Bay's watershed, its physical environment, and its living organisms, with an emphasis on the connections between these factors. Understanding the relationships between physical, chemical and biological processes will equip students to comprehend and appreciate the remarkable productivity of our estuary, as well as provide them with the knowledge needed to protect the Bay. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 207 Principles of Biology III - Organismal Biology (3) Prerequisite: BSCI105 and BSCI106. Pre- or corequisite: CHEM103 or CHEM131; or equivalent. Credit will be granted for only one of the following: BSCI207 or BSCI279D. The diversity, structure and function of organisms as understood from the perspective of their common physicochemical principles and unique evolutionary histories.

BSCI 222 Principles of Genetics (4) Three hours of lecture and two hours of discussion/recitation per week. Prerequisite: {BSCI105 and BSCI106 and (CHEM131 and CHEM132)} or {BSCI105 and two semesters of chemistry}. Credit will be granted for only one of the following: BIOL222 or BSCI222. Formerly BIOL 222. Principles and mechanisms of heredity and gene expression. Considers plant, animal, and microbial organisms.

BSCI 223 General Microbiology (4) Two hours of lecture and four hours of laboratory per week. Prerequisite: BSCI110. Credit will be granted for only one of the following: BSCI122 or BSCI223. Formerly MICB 200. Fundamental concepts in morphology, physiology, genetics, immunology, ecology, and pathogenic
microbiology. Applications of microbiology to medicine, the food industry and biotechnology.

BSCI 224 Animal Diversity (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: BSCI106. Formerly ZOOL 210. Comparative study of the diversity of animal form and function, including analysis of structures and mechanisms which different organisms utilize to cope with similar requirements of life.

BSCI 230 Cell Biology and Physiology (4) Three hours of lecture and three hours of laboratory per week. Prerequisites: BSCI105 and CHEM103. Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

BSCI 258 College Park Scholars Internship (1-3) For College Park Scholars - Life Sciences students only. Repeatable to 6 credits if content differs. Formerly BIOL 258. Credit to be determined by CPS Director. Must be completed by end of sophomore year. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 279 Supplemental Study (1-3) Prerequisite: permission of department. Repeatable to 6 credits. Formerly ZOOL 299. Research or special study to complement a course taken previously which is not fully equivalent to current departmental requirements. Credit according to work done.

BSCI 288 Internship (1-6) Prerequisite: permission of department. Repeatable to 12 credits if content differs. Formerly BIOL 288. An individual experience arranged by the student with the instructor. Does not satisfy biology major requirements. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 289 Off-Campus Internship (1-3) Prerequisite: permission of department. For LFSC majors only. Repeatable to 5 credits if content differs. Formerly BIOL 289. Elective credit for formally established off-campus research internships. Permission of Director of Outreach required. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 312 Eukaryotic Genetics Laboratory (2) Three hours of laboratory and one hour of discussion/recitation per week. Prerequisite: BSCI222 or equivalent. Credit will be granted for only one of the following: BIOL322, ZOOL322, or BSCI132. Formerly ZOOL 322. Experiments using lower and higher eukaryotes will be done by the students. Exercises will apply the genetic concepts underlying Mendelian and chromosomal theory of heredity; gene-environment interactions and the induction and detection of mutations. Major emphasis will be on the analysis and interpretation of data as well as clarity and completeness of the laboratory records.

BSCI 328 Special Topics in Entomology (1-4) Repeatable to 6 credits if content differs. Formerly ENTM 328. Lectures, seminars, mini-courses and other special instruction in various entomological subjects.

BSCI 329 Instructional Assistance Practicum (1-3) Prerequisite: permission of department. Repeatable to 3 credits if content differs. Formerly ZOOL 329. Students serve as instructional assistants in selected undergraduate biology courses. Roles and responsibilities are determined on a course-specific basis and approved by the College Undergraduate Program Committee. Course not acceptable toward major requirements in the College of Chemistry and Life Sciences.

BSCI 330 Cell Biology and Physiology (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: grade of C(2.0) or better in {BSCI105 and (CHEM131 and CHEM132)}. Not open to students who have completed BSCI230. Credit will be granted for only one of the following: BSCI230 or BSCI330. Formerly BSCI 230. Biochemical and physiological mechanisms underlying cellular function. Properties of cells which make life possible and mechanisms by which cells provide energy, reproduce, and regulate and integrate with each other and their environment.

BSCI 334 Mammalogy (3) Prerequisite: A grade of C (2.0) or better in {BSCI106 and BSCI207}. Credit will be granted for only one of the following: BSCI334 or BSCI338M. Formerly BSCI 338M. Introduction to the biology of mammals, including evolution, physiological, and behavioral specializations.

BSCI 335 Mammalogy Laboratory (1) Prerequisite: A grade of C (2.0) in {BSCI106 and BSCI334 (formerly BSCI338M)}. Corequisite: BSCI334 (formerly BSCI338). Credit will be granted for only one of the following: BSCI335 or BSCI338U. Formerly BSCI 338U. Lab and field techniques for the study of mammals, focusing on their identification, anatomy, histology, spatial distribution, ecology, and behavior.

BSCI 337 Biology of Insects (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: BSCI106 or (PLSC100 and PLSC101); or permission of department. Credit will be granted for only one of the following: BSCI227 or BSCI337. Formerly BSCI 227. An overview of the biology, evolution and diversity of insects and their relatives. Insect morphology, physiology, behavior and ecology; the impact of insects on humanity and the management of pest insect populations; assembly of an insect collection is required.
BSCI 338 Special Topics in Biology (1-4) Repeatable to 6 credits if content differs. Formerly ZOOL 328. Lectures, seminars, mini-courses and other special instruction in various biological subjects.

BSCI 342 Biology of Reproduction (3) Prerequisite: BSCI105 or permission of department. Also offered as WMST326. Credit will be granted for only one of the following: BSCI342 or WMST326. Formerly ZOOL 326. The biology of the reproductive system with emphasis on mammals and, in particular, on human reproduction. Hormone actions, sperm production, ovulation, sexual differentiation, sexual behavior, contraception, pregnancy, lactation, maternal behavior, and menopause.

BSCI 348 Special Topics in Cell Biology and Molecular Genetics (1-4) Formerly MICB 388. Presentation and discussion of special subjects in the field of cell biology and molecular genetics. A maximum of three credit hours of BSCI 348 may be applied to major.

BSCI 360 Principles of Animal Behavior (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisites: BSCI105 and BSCI106 and BSCI222. Formerly ZOOL 360. Study of animal behavior with emphasis on its evolution and function. Topics include genetic basis of behavior, communication, aggression, foraging, cooperation, mate selection, and relevance for conservation.

BSCI 361 Principles of Ecology (4) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: BSCI106 and (MATH140 or MATH220). Formerly ZOOL 328N. Basic principles of population, community, and ecosystem ecology. Use of these principles to predict possible consequences of human-caused changes in the environment and to understand the level of uncertainty of those predictions.

BSCI 362 Ecology of Marsh and Dune Vegetation (2) Prerequisite: BSCI106. Formerly PBIO 455. An examination of the biology of higher plants in dune and marsh ecosystems.

BSCI 363 The Biology of Conservation and Extinction (3) Prerequisite: BSCI106. Formerly ZOOL 312. Ecology, evolutionary biology, and paleontology will be applied to the study of conservation, species invasions, and extinction.

BSCI 366 Biodiversity Issues in Conservation Management (3) Prerequisite: BSCI224 or BSCI225 or BSCI227 or permission of department. Formerly ENTM 313. How biological diversity affects the stability and economic viability of agriculture, urban landscapes, and other managed resources and what actions can be taken to reduce losses.

BSCI 370 Principles of Evolution (3) Prerequisite: BSCI106. Formerly ZOOL 328Q. Understanding evolutionary processes in a natural and human environment, including adaption; DNA sequence, protein, and genome evolution; evolution of developmental mechanisms; mechanisms of evolutionary change (mutation, natural selection, drift); epidemiology; coevolution and biological control; speciation; comparative methods; extinction and conservation; human evolution.

BSCI 373 Natural History of the Chesapeake Bay (3) Three lectures per week and at least one Saturday field trip. Prerequisite: a course in biological sciences or permission of department. Formerly ZOOL 381. Consideration of the major groups of organisms associated with the Chesapeake Bay and current issues that determine humans' present and future uses for the Chesapeake and its biota.

BSCI 374 Chesapeake Bay Laboratory (2) One hour of lecture, two hours of laboratory, and eight hours of fieldwork per week. Prerequisite or corequisite: BSCI373. Formerly ZOOL 382. A laboratory and field experience of the watershed and Chesapeake Bay biota. Laboratories will be used to identify the biota collected by students on Thursday and Saturday field trips to a wide variety of collecting sites available along the 200 mile length of the Chesapeake Bay.

BSCI 375 Biological Oceanography (3) Prerequisites: BSCI106 and BSCI224. Formerly ZOOL 375. Fundamentals of biological processes in the world's oceans; emphasizes ecology of marine organisms and how ocean chemistry and ocean circulation influence biological processes such as production, dispersal, and food chain dynamics.

BSCI 378H Cell Biology and Molecular Genetics Department Honors Seminar (1) Repeatable to 6 credits. Formerly MICB 388H. Required seminar for all students participating in departmental honors research program.

BSCI 379 Cell Biology and Molecular Genetics Department Research (1-3) Prerequisite: permission of department. Formerly MICB399/PBIO399. This course is arranged to provide qualified majors an opportunity to pursue research problems under the supervision of a member of the department.

BSCI 379H Cell Biology and Molecular Genetics Department Honors Research (1-4) Prerequisite: admission to departmental honors program. Repeatable to 8 credits if content differs. Formerly MICB 379. Student should consult program guidelines. Research project carried out under guidance of faculty advisor.

BSCI 380 Comparative Bioinformatics (4) Three hours of lecture and three hours of laboratory per week.
BSCI 389 Entomology Department Research (1-2) Prerequisite: BSCI227/ENTM205 or permission of department. Formerly ENTM 399. Credit to be determined by the department. Should be taken during the junior year. Investigations of assigned entomological problems. No more than 4 credit hours of BSCI389 may be applied to the 120 credit hours needed for the Bachelor’s degree.

BSCI 389H Entomology Department Honors Research (1-2)

BSCI 392 Biology of Extinct Animals (3) Prerequisite: BSCI106. Credit will be granted for only one of the following: BSCI392 or ZOOL396. Formerly ZOOL 396. A survey of extinct animals that have few, if any, direct living descendants. The principles governing the functional design of animals will be used to infer life styles for extinct, and frequently bizarre, organisms.

BSCI 393 Biology of Extinct Animals Laboratory (1) Three hours of laboratory per week. Pre- or corequisite: BSCI392. Formerly: BSCI338W/ZOOL328W. Credit will be granted for only one of the following: BSCI392 or BSCI338W or ZOOL328W. An overview of the techniques used in paleobiological reconstructions of extinct animals.

BSCI 394 Vertebrate Form and Function (3) Prerequisites: BSCI105 and BSCI106 and (BSCI224 or BSCI230). Formerly ZOOL 328F. Comparative functional anatomy of vertebrates in the context of adaptation to their environments. The vertebrate body and its systems will be considered in terms of structure, physiology, evolution, and embryonic development.

BSCI 398H Biology Department Honors Seminar (1) Prerequisite: permission of department. Formerly ZOOL 308H. Required seminar for all students participating in departmental honors research program.

BSCI 399 Biology Department Research (1-3) Prerequisite: minimum G.P.A. of 3.0 and permission of department. Repeatable to 8 credits if content differs. Formerly ZOOL 319. Research and/or integrated reading in biology under the direction and close supervision of a member of the faculty.

BSCI 399H Biology Department Honors Research (1-2) Prerequisite: participation in the Biology Department Honors Program. Repeatable to 8 credits if content differs. Formerly ZOOL 318H. A laboratory research problem; required each semester during honors participation and culminating in an honors thesis.

BSCI 410 Molecular Genetics (3) Prerequisites: BSCI1106 and BSCI1106 and (BSCI224 or BSCI230). Formerly ZOOL 446. An advanced genetics course emphasizing the molecular basis of gene structure and function in the context of modern approaches to the genetics of humans and model organisms.

BSCI 411 Plant Genetics and Molecular Biology (3) Prerequisite: BSCI222. Junior standing. Formerly PBIO 405. The basic principles of genetic analysis and molecular biology of gene structure, expression, and manipulation.

BSCI 412 Microbial Genetics (4) Two hours of lecture and six hours of laboratory per week. Prerequisites: BSCI223 and BSCI222. Formerly MICB 485. A laboratory/lecture based course that covers the fundamentals of mutation, mobile genetic elements and transmission genetics of microbial organisms using both classical and molecular approaches.

BSCI 413 Recombinant DNA (3) Prerequisites: (BSCI230 or BSCI223) and BSCI222. Formerly ZOOL 452. An advanced course presenting the tools and procedures of genetic engineering. Theory and practical applications of recombinant DNA techniques to understanding eukaryotic gene structure and expression.

BSCI 414 Recombinant DNA Laboratory (3) Prerequisite: BSCI222. Formerly MICB 453. An advanced course offering hands-on experience in performing recombinant DNA experiments. All current molecular biology techniques used for cloning prokaryotic genes, analyzing the gene products, and modifying the genes will be performed. Techniques include isolation of DNA, use of restriction enzymes; cloning procedures, PCR analysis, and Southern hybridizations. Lecture material focuses on interpretation of results generated in the laboratory.

BSCI 415 Molecular Genetics Laboratory (3) Six hours of laboratory per week. Pre- or corequisite: BSCI410. Junior standing. Credit will be granted for only one of the following: BSCI348G or BSCI415. Formerly BSCI 348G. Problem solving laboratory organized around extended projects that employ different approaches toward linking gene and function.

BSCI 416 Biology of the Human Genome (3) Prerequisite: A grade of C (2.0) or better in BSCI222. Recommended: BSCI330 or BSCI230. Formerly ZOOL 417. Approaches to human genetics and applications to
biology and medicine: genetic basis of human disease, the human genome project, human genetic diversity and evolutionary genetics.

**BSCI 417 Microbial Pathogenesis (3)** Prerequisite: BSCI222 and BSCI223. Junior standing. Credit will be granted for only one of the following: BSCI348M or BSCI417. Formerly BSCI 348M. Current research in microbial pathogenesis and the molecular and cellular basis of bacterial disease. Comprehensive overview of the molecular basis of pathogenesis with a focus on model microbial systems to illustrate mechanisms of disease pathogenesis. Topics covered: how microorganisms attach to and enter cells; how host cells are damaged by microbial products; how the host responds to invasion; and host-pathogen evolution.

**BSCI 420 Cell Biology Lectures (3)** Prerequisites: BSCI230 and BSCI222 and CHEM233. Credit will be granted for only one of the following: BSCI420 or BSCI421. Formerly ZOOL 410. Molecular and biochemical bases of cellular organization and function in eukaryotes.

**BSCI 421 Cell Biology (4)** Three hours of lecture and four hours of laboratory per week. Prerequisites: BSCI230 and BSCI222 and CHEM233. Formerly: PBIO410 and ZOOL411. Credit will be granted for only one of the following: BSCI420 or BSCI421. Molecular and biochemical bases of cellular organization and function in eukaryotes.

**BSCI 422 Principles of Immunology (3)** Prerequisites: BSCI222 and BSCI223. Recommended: BSCI230. Junior or Senior standing. Formerly MICB 454. The immune system in health and disease. Presentation and analysis of the cellular and molecular processes that comprise the immune system.

**BSCI 423 Immunology Laboratory (2)** Six hours of laboratory per week. Prerequisites: BSCI222 and BSCI223. Corequisite: BSCI422. Junior or senior standing. Formerly MICB 455. Current techniques for assessment of immune status and evaluation of the immune response, including monoclonal antibody production, Western blotting, cytokine assays, ELISA and flow cytometry.

**BSCI 424 Pathogenic Microbiology (4)** per week. Prerequisite: BSCI223. Formerly MICB 440. The role of bacteria and fungi in the diseases of humans with emphasis upon the differentiation and culture of microorganisms, types of disease, modes of disease transmission, prophylactic, therapeutic, and epidemiological aspects.

**BSCI 425 Epidemiology and Public Health (3)** Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: BSCI223. Formerly MICB 420. History, characteristic features of epidemiology; the important responsibilities of public health; vital statistics.

**BSCI 426 Membrane Biophysics (3)** Prerequisites: BSCI230; and (PHYS122 or PHYS142) and (MATH140 or MATH220). Formerly ZOOL 413. Quantitative aspects of biology and the use of mathematical descriptions of biological phenomena. The focus will be on membrane structure, transport, and bioenergetics.

**BSCI 427 Principles of Microscopy (2)** Prerequisite: BSCI421. Formerly PBIO 430. An introduction to optical principles that underlie light and electron microscopic image formation. Brightfield, darkfield, phase contrast, differential interference contrast, fluorescence and polarized light microscopy. Comparison of light and electron microscopy. The application of these techniques to problems in biological research.

**BSCI 430 Developmental Biology (3)** Prerequisites: BSCI230 and BSCI222. Formerly ZOOL 430. Structural, functional and regulatory events and mechanisms that operate during development to produce an integrated, multicellular organism composed of a multitude of differentiated cell types.

**BSCI 433 Biology of Cancer (3)** Prerequisites: (BSCI230 and BSCI222) or permission of department. Formerly ZOOL 416. Causes and consequences of neoplastic transformations at the biochemical and cellular levels.

**BSCI 434 Mammalian Histology (4)** Two hours of lecture and six hours of laboratory per week. Prerequisites: BSCI230 and BSCI440; or permission of department. Formerly ZOOL 495. A study of the microscopic anatomy, ultrastructure and histophysiology of tissues and organs of mammals.

**BSCI 436 Drug Action and Design (3)** Prerequisite: CHEM243 or permission of department. Junior standing. Formerly MICB 443. Introductory pharmacology with an emphasis on "magic bullets", novel therapies, and drug design.

**BSCI 437 General Virology (3)** Prerequisite: BSCI222 or permission of department. Junior standing. Formerly MICB 460. Discussion of the physical and chemical nature of viruses, virus cultivation and assay methods, virus replication, viral diseases with emphasis on the oncogenic viruses, viral genetics, and characteristics of the major virus groups.

**BSCI 440 Mammalian Physiology (4)** Three hours of lecture and two hours of discussion/recitation per week. Prerequisites: BSCI230 and CHEM233 or permission of department. Formerly ZOOL 422. A study of the cardiovascular, hemopoietic, gastrointestinal, renal and respiratory systems. Chemical and endocrine...
regulation of physiological functions in mammals. Course does not count as an upper level lab for BIOL majors (see BSCI441).

**BSCI 441 Mammalian Physiology Laboratory (2)** Four hours of laboratory per week. Corequisite: BSCI440. Formerly ZOOL 423. Laboratory exercises in experimental mammalian physiology.

**BSCI 442 Plant Physiology (4)** Three hours of lecture and three hours of laboratory per week. Prerequisites: BSCI105 and CHEM233 or (CHEM231 and CHEM232). Formerly PBIO 420. A survey of the general physiological activities of plants.


**BSCI 444 Neurophysiology Lectures (3)** Prerequisites: BSCI230 and CHEM233 and PHYS122. Credit will be granted for only one of the following: BSCI444 or BSCI445. Formerly ZOOL 420. The physiology of nerves, muscles, and sensory receptors and aspects of central nervous system physiology.

**BSCI 445 Neurophysiology (4)** Three hours of lecture and three hours of laboratory per week. Prerequisites: BSCI230 and CHEM233 and PHYS122. Credit will be granted for only one of the following: BSCI444 or BSCI445. Formerly ZOOL 421. The physiology of nerves, muscles and sensory receptors and aspects of central nervous system physiology.

**BSCI 446 Neural Systems (3)** Prerequisite: BSCI230. Formerly ZOOL 402. Neural development, followed by sensory, motor and integrative system organization in the central nervous system.

**BSCI 447 General Endocrinology (3)** Prerequisites: BSCI230 and CHEM233 and CHEM243. Formerly ZOOL 426. Functions and the functioning of the endocrine glands of animals with special reference to the vertebrates.

**BSCI 451 Physical Chemistry for Biologists (3)** Prerequisite: BSCI230 or equivalent. Formerly ZOOL 328S. Mechanistic and quantitative aspects of chemical and physical processes, including diffusion, ligand-receptor binding, DNA melting, sedimentation, redox reactions, kinetics, fluorescence, osmosis, and electrophoresis.

**BSCI 453 Cellular Neurophysiology (3)** Prerequisite: A grade of C (2.0) or better in ((BSCI230 or BSCI330) and (CHEM231 and CHEM232) and PHYS122). Credit will be granted for only one of the following: BSCI444 or BSCI445 or BSCI453. Formerly BSCI 444. The cellular and molecular basis of nervous system function.

**BSCI 454 Neurobiology Laboratory (1)** Prerequisite: (BSCI230 or BSCI330) and (CHEM231 and CHEM232) and PHYS122; and pre- or corequisite: (BSCI453 or BSCI446). Credit will be granted for only one of the following: BSCI444 or BSCI445. Formerly BSCI 445. Grade of C (2.0) required in all course pre-requisites. Basic neuroanatomical techniques, intracellular and extracellular recordings of electrical potentials from nerve and muscle.

**BSCI 460 Plant Ecology (3)** Prerequisite: BSCI106. Formerly PBIO 440. The dynamics of populations as affected by environmental factors with special emphasis on the structure and composition of natural plant communities, both terrestrial and aquatic.

**BSCI 461 Plant Ecology Laboratory (2)** Three hours of laboratory per week. Pre- or corequisite: BSCI460. Formerly PBIO 441. Two or three field trips per semester. The application of field and experimental methods to the qualitative and quantitative study of vegetation and ecosystems.


**BSCI 463 Laboratory and Field Ecology (2)** Four hours of laboratory and field work per week. Pre- or corequisites: BSCI462 and a course in statistics. Formerly ZOOL 471. Laboratory and field exercises involving problems of contemporary ecological interest; population density regulation, community structure, and spatial pattern diversity in both terrestrial and aquatic systems.

**BSCI 464 Microbial Ecology (3)** Prerequisites: BSCI223; and (CHEM241 and CHEM242 or CHEM243). Formerly MICB 480. Interaction of microorganisms with the environment, other microorganisms and with higher organisms. Roles of microorganisms in the biosphere. Microorganisms and current environmental problems.
BSCI 465 Behavioral Ecology (3) Prerequisites: BSCI106 and (BSCI222 or BSCI224). Formerly ZOOL 465. How natural and social environments shape individual behavior. The influence of evolution on patterns of individual adaptation. Use of the evolutionary paradigm to investigate specific problems in animal and human behavior.

BSCI 467 Freshwater Biology (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: BSCI227 or permission of department. Formerly ENTM 482. Biology and ecology of freshwater invertebrates in lotic and lentic habitats, their adaptation to aquatic life, their function in aquatic ecosystems, and their relationship to environmental deterioration. Laboratory will include field trips, demonstrations, and identifications.

BSCI 471 Molecular Evolution (3) Prerequisite: BSCI222 or permission of department. Formerly ZOOL 441. Patterns of DNA sequence variation within and between species, caused by nucleotide changes and the movement of transposable elements. Theories of molecular evolution, such as the neutral theory. Molecular clock hypothesis: its importance as a practical empirical tool in molecular genetics and systematics and its theoretical foundation.

BSCI 472 Evolutionary Biology of Plants (3) Prerequisites: BSCI106 and BSCI222. Formerly PBIO 445. Evolution in plant populations. The pace, pattern, and mechanisms of evolution will be discussed within a genetic and ecological framework. Some emphasis will be placed on processes that are unique to the evolution of plants.

BSCI 473 Marine Ecology (3) Prerequisite: BSCI224. Formerly ZOOL 473. Courses in evolution and animal behavior are strongly recommended. A detailed analysis of the evolutionary ecology of marine invertebrates; emphasis on testing of theories and on current literature.

BSCI 474 Mathematical Biology (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: MATH220 and MATH221. Formerly ZOOL 425. Mathematical methods for analyzing deterministic and stochastic biological processes from a variety of areas (including population and evolutionary biology, neurobiology, physiology and morphogenesis). Qualitative aspects of dynamical systems which are usually given as difference or differential equations. The computer program Mathematica will be used to obtain the numerical solutions of these equations.

BSCI 480 Arthropod Form and Function (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: BSCI227 or permission of department. Formerly ENTM 423. Survey of the morphological, systematic and physiological diversity of the phylum Arthropoda.

BSCI 481 Insect Diversity and Classification (4) One hour of lecture and six hours of laboratory per week. Prerequisite: BSCI227 or permission of department. Formerly ENTM 424. The techniques of collecting insects in the field and their classification into the latest hierarchical scheme. Field trips will visit habitats throughout the state. An insect collection is required.

BSCI 482 Medical and Veterinary Entomology (4) Three hours of lecture and two hours of laboratory per week. Prerequisite: BSCI227 or permission of department. Formerly ENTM 472. A study of the morphology, taxonomy, biology and control of the arthropod parasites and disease vectors of man and animals. The ecology and behavior of vectors in relation to disease transmission will be emphasized.

BSCI 485 Protozoology (4) Two hours of lecture and six hours of laboratory. Prerequisite: one year of biology. Formerly ZOOL 472. Basic conceptual treatment of free-living and parasitic protozoan functional morphology, life history, and systematics. The laboratory will stress observations of protozoa, living and stained, collected from diverse habitats.

BSCI 488 Summer Biology Institutes (1-8) Prerequisite: permission of department. Formerly: BIOL488, BIOL489, and BIOL490. Repeatable to 12 credits if content differs.

BSCI 493 Medicinal and Poisonous Plants (3) Two hours of lecture and two hours of discussion/recitation per week. Prerequisites: BSCI105 and CHEM233 or 4 credit hours of biological sciences. Formerly PBIO 485. A study of plants important to humans that have medicinal or poisonous properties. Emphasis on plant source, plant description, the active agent and its beneficial or detrimental physiological action and effects.

BSCI 494 Animal-Plant Interactions (3) Prerequisites: BSCI106 and (BSCI227, or BSCI224, or permission of department). Credit will be granted for only one of the following: BSCI494 or ENTM400. Formerly ENTM 400. Theoretical, conceptual and applied aspects of the ecological interactions between plants and animals.

BSCI 495 Animal-Plant Interactions Laboratory (1) Two hours of laboratory per week. Pre- or corequisite: BSCI494. Credit will be granted for only one of the following: BSCI495 or ENTM401. Formerly ENTM 401. Guided independent research on animal-plant ecological interactions.

BSCI 497 Insect Pests of Ornamentals and Turf (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: BSCI227 or permission of instructor. Also offered as ENTM497. Credit will be granted
for only one of the following: BSCI497, ENTM453, or ENTM497. Formerly ENTM 453. The recognition, biology and management of insects and mites injurious to ornamental shrubs, trees, greenhouse crops, and turf. Emphasis on Integrated Pest Management (IPM).
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

<table>
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<tr>
<th>Number</th>
<th>Eligibility</th>
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<tbody>
<tr>
<td>000–099</td>
<td>Non-credit course</td>
</tr>
<tr>
<td>100–199</td>
<td>Primarily freshman course</td>
</tr>
<tr>
<td>200–299</td>
<td>Primarily sophomore course</td>
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<tr>
<td>300–399</td>
<td>Junior, senior course not acceptable for credit toward graduate degrees</td>
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<tr>
<td>386–387</td>
<td>Campus-wide internship courses; refer to information describing Experiential Learning</td>
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<tr>
<td>400–499</td>
<td>Junior, senior course acceptable for credit toward some graduate degree</td>
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<tr>
<td>500–599</td>
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Use the search box below to view the approved courses.

Select Program:  BSOS - Behavioral and Social Sciences

Course Number:  

Search

Courses in "BSOS-Behavioral and Social Sciences"

BSOS - Behavioral and Social Sciences

**BSOS 181 Civicus Student and the University (1)** Freshman standing. Knowledge and skills designed to utilize CIVICUS to enhance the college experience and preparation for civic engagement.

**BSOS 182 Civicus and Service-Learning (1)** Prerequisite: BSOS181, and BSOS191. Corequisite: SOCY105. Open only to Civicus students. Students will examine domestic societal issues and their national, regional, and local dimensions from political, economic, and policy perspectives. Students will work with local direct service non-profit organizations.

**BSOS 188 Selected Topics in the Behavioral and Social Sciences (1–3)** Repeatable to 6 credits if
content differs. Not open to students who have completed EDCP108P. Credit will be granted for only one of the following: EDCP108O or BSOS188A. Introductory selected topics course dealing with interdisciplinary issues related to the social sciences.

**BSOS 191 Introduction to Civicus (3)** 3 semester hours. An introduction to the social and historical foundations of a civil society. An examination of the roles of individuals, groups, social institutions and community services.

**BSOS 288 Special Topics in Behavioral and Social Sciences (1-3)** Repeatable to 6 credits if content differs. Introductory special topics course focusing on an interdisciplinary topic related to behavioral and social sciences.

**BSOS 301 Leadership in a Multicultural Society (3)** Prerequisites: SOCY105, BSOS181, and BSOS191. Sophomore standing. A study and application of skills, historical context, theories, and concepts for constructive leadership in a pluralistic, multicultural, and diverse society. Social science methodologies and theories will provide the structure for the study of contemporary social problems, civil society issues, and leadership practices.

**BSOS 302 Civicus Capstone (3)** Prerequisite: BSOS301. Sophomore standing. Capstone course required for CIVICUS citation. Supervised internship, community service, or research project on civil society topic. Application and continued study of skills and concepts, grounded in the social sciences, relevant to understanding and effectively dealing with contemporary social issues.

**BSOS 308 Contemporary Issues: Interdisciplinary Approaches (3)** Repeatable to 6 credits if content differs. An interdisciplinary analysis of current public policy issues of international, national and community import. Senior standing recommended.

**BSOS 309 Civicus Seminar (1)** Repeatable to 5 credits if content differs. Review and analysis of contemporary social issues.

**BSOS 333 Information Technology & Society (3)** Also offered as GVPT333. Credit will be granted for only one of the following: BSOS333 or GVPT333. Multi-disciplinary course utilizes a collaborative research model approach to focus on the influences of information and communication technologies on the way we live, work, learn, and relate to each other and to our community. Given the collaborative nature of the course, students may not drop after the first four weeks of class.

**BSOS 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.

**BSOS 388 Behavioral and Social Sciences Special Topics (1-3)** Repeatable to 6 credits if content differs. Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

**BSOS 399 Directed Study in Behavioral and Social Sciences (1-6)** Prerequisite: permission of department. Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

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Chapter 8: Approved Courses

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Select Program: CCJS - Criminology and Criminal Justice
Course Number: 

Courses in “CCJS-Criminology and Criminal Justice”

CCJS - Criminology and Criminal Justice

CCJS 100 Introduction to Criminal Justice (3) Formerly CJUS 100. Introduction to the administration of criminal justice in a democratic society, with emphasis on the theoretical and historical development of law enforcement. The principles of organization and administration for law enforcement; functions and specific activities; planning and research; public relations; personnel and training; inspection and control; direction; policy formulation.

CCJS 105 Introduction to Criminology (3) Formerly CRIM 220. Criminal behavior and the methods of its study; causation; typologies of criminal acts and offenders; punishment, correction and incapacitation; prevention of crime.
CCJS 188 Topics in Criminology and Criminal Justice (3) Prerequisite: CCJS100 or CCJS105. Repeatable to 6 credits if content differs. Contemporary and emerging crimes and the response to them by criminal justice agencies. Emphasis is on the emergence of new forms of crimes or criminals.

CCJS 200 Statistics for Criminology and Criminal Justice (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisites: CCJS100 or CCJS105, and MATH111 with a grade of C or higher. Introduction to descriptive and inferential statistics, graphical techniques, and the computer analysis of criminology and criminal justice data. Basic procedures of hypothesis testing, correlation and regression analysis, and the analysis of continuous and binary dependent variables. Emphasis upon the examination of research problems and issues in criminology and criminal justice.

CCJS 230 Criminal Law in Action (3) Prerequisite: CCJS100. Law as one of the methods of social control. Criminal law: its nature, sources and types; theories and historical developments. Behavioral and legal aspects of criminal acts. Classification and analysis of selected criminal offenses.


CCJS 288 Special Topics in Law and Justice (3) Prerequisites: CCJS105 and CCJS230. Repeatable to 6 credits if content differs. An analysis of recent developments in criminal law and their implications for criminal justice systems and research. Focus will be on Supreme Court decisions and legislative initiatives.

CCJS 300 Criminological and Criminal Justice Research Methods (3) Prerequisites: CCJS100 and CCJS105; and one of the following: CCJS200 or SOCY201 or PSYC200 or ECON321 or BMGT230. Introduction to the formulation of research questions covering crime and justice, research designs, data collection, and interpretation and reporting in criminological and justice-system settings.

CCJS 320 Introduction to Criminalistics (3) Prerequisite: CCJS100 and CCJS230. An introduction to modern methods used in the detection, investigation and solution of crimes. Practical analysis of evidence in a crime laboratory, including fingerprints and other impressions, firearms ID and ballistics, hairs and fibers, document examination, and use of polygraph.

CCJS 330 Contemporary Criminological Issues (3) Prerequisite: CCJS100 and CCJS105. Topics may include career criminals, prison overcrowding, prediction, ecological studies of crimes, family and delinquency, entrepreneurship in criminal justice and criminology, and similar criminological problems.


CCJS 332 Major Transitions: From Undergraduate to Professional (1) Junior standing. For CCJS majors only. This course is designed to assist criminology and criminal justice students explore career opportunities. Topics will include: graduate school, law school, career opportunities in federal, state, local, and public agencies, resume writing, and internships.

CCJS 340 Concepts of Law Enforcement Administration (3) Prerequisite: CCJS100 or equivalent. An introduction to concepts of organization and management as these relate to law enforcement. Principles of structure, process, policy and procedure, communication and authority, division of work and organizational controls. Human element in the organization. Informal interaction and bureaucracy.

CCJS 350 Juvenile Delinquency (3) Prerequisite: CCJS105. Juvenile delinquency in relation to the general problem of crime; analysis of factors underlying juvenile delinquency; treatment and prevention; organization and social responsibility of law enforcement.

CCJS 352 Drugs and Crime (3) Prerequisite: CCJS100. An analysis of the role of criminal justice in the control of drug use and abuse.

CCJS 357 Industrial and Retail Security Administration (3) Prerequisite: CCJS100 or permission of department. The origins of contemporary private security systems. Organization and management of industrial and retail protective units.

CCJS 359 Field Training in Criminology and Corrections (1-6) Prerequisite: six credits in criminology and permission of department. Repeatable to 6 credits. Supervised field training in public or private social agencies. Group meetings, individual conferences and written program reports.

CCJS 360 Victimology (3) Prerequisite: CCJS105. Overview of the history and theory of victimology. Analysis of victimization patterns with special emphasis on types of victims and crimes. The interaction between victims of crime and the criminal justice system with respect to the role of the victim and the
services offered to the victim.

**CCJS 370 Race, Crime and Criminal Justice (3)** Prerequisite: CCJS100 or equivalent. Role and treatment of racial/ethnic minorities in the criminal justice system. Course will provide students with historical and theoretical framework for understanding this dynamic.

**CCJS 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.

**CCJS 388 Independent Reading Course in Criminology and Criminal Justice (3)** Prerequisites: CCJS100 and CCJS105. For honor students only. Designed for the needs of honor students in criminology and criminal justice.

**CCJS 389 Independent Research in Criminology and Criminal Justice (3)** Prerequisite: CCJS105. For honor students only. Designed for the needs of honor students in criminology and criminal justice.

**CCJS 398 Law Enforcement Field Training (1-6)** Prerequisite: 6 credits of CCJS; and permission of department. Repeatable to 6 credits. Supervised, structured and focused field training in law enforcement agencies.

**CCJS 399 Independent Study in Criminology and Criminal Justice (1-3)** Prerequisites: 12 credits in criminology and criminal justice and permission of department. Repeatable to 6 credits. Integrated reading or research under direction and supervision of a faculty member.

**CCJS 400 Criminal Courts (3)** Prerequisites: CCJS100 or permission of department; and CCJS300. Criminal courts in the United States at all levels; judges, prosecutors, defenders, clerks, court administrators, and the nature of their jobs; problems facing courts and prosecutors today and problems of administration; reforms.

**CCJS 432 Law of Corrections (3)** Prerequisites: CCJS100, CCJS105, CCJS230, and CCJS300. A review of the law of criminal corrections from sentencing to final release or release on parole. Probation, punishments, special treatments for special offenders, parole and pardon, and the prisoner's civil rights are also examined.

**CCJS 444 Advanced Law Enforcement Administration (3)** Prerequisites: CCJS100 and CCJS340. The structuring of manpower, material, and systems to accomplish the major goals of social control. Personnel and systems management. Political controls and limitations on authority and jurisdiction.

**CCJS 451 Crime and Delinquency Prevention (3)** Prerequisites: CCJS105 or CCJS350 or permission of department; and CCJS300. Methods and programs in prevention of crime and delinquency.

**CCJS 452 Treatment of Criminals and Delinquents (3)** Prerequisites: CCJS105 or CCJS350 or permission of department; and CCJS300. Processes and methods used to modify criminal and delinquent behavior.

**CCJS 453 White Collar and Organized Crime (3)** Prerequisites: CCJS105 or CCJS350; and CCJS300. Definition, detection, prosecution, sentencing and impact of white collar and organized crime. Special consideration given to the role of federal law and enforcement practices.

**CCJS 454 Contemporary Criminological Theory (3)** Prerequisites: CCJS105; and CCJS300; and CCJS350. Brief historical overview of criminological theory up to the 50’s. Deviance. Labeling. Typologies. Most recent research in criminalistic subcultures and middle class delinquency. Recent proposals for "decriminalization".

**CCJS 455 Dynamics of Planned Change in Criminal Justice I (3)** Prerequisite: CCJS300 and permission of department. An examination of conceptual and practical issues related to planned change in criminal justice. Emphasis on the development of innovative ideas using a research and development approach to change.

**CCJS 456 Dynamics of Planned Change in Criminal Justice II (3)** Prerequisite: CCJS455 or permission of department. An examination of conceptual and practical issues related to planned change in criminal justice. Emphasis on change strategies and tactics which are appropriate for criminal justice personnel in entry level positions.

**CCJS 457 Comparative Criminology and Criminal Justice (3)** Prerequisites: CCJS105 or CCJS350; and CCJS300. Comparison of law and criminal justice systems in different countries. Special emphasis on the methods of comparative legal analysis, international cooperation in criminal justice, and crime and development.

**CCJS 461 Psychology of Criminal Behavior (3)** Prerequisites: CCJS105 or equivalent; and CCJS300; and PSYC330 or PSYC353. Biological, environmental, and personality factors which influence criminal behaviors. Biophysiology and crime, stress and crime, maladjustment patterns, psychoses, personality disorders, aggression and violent crime, sex-motivated crime and sexual deviations, alcohol and drug abuse, and
criminal behavior.

**CCJS 462 Special Problems in Security Administration (3)** Prerequisites: CCJS300 and CCJS357. An advanced course for students desiring to focus on specific concerns in the study of private security organizations; business intelligence and espionage; vulnerability and criticality analyses in physical security; transportation, banking, hospital and military security problems; uniformed security forces; national defense information; and others.

**CCJS 498 Selected Topics in Criminology and Criminal Justice (3)** Repeatable to 6 credits if content differs. Topics of special interest to advanced undergraduates in criminology and criminal justice. Offered in response to student request and faculty interest.

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Chapter 8: Approved Courses

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![Search box](https://www.umd.edu/catalog/index.cfm/show/content.chapter/c/50/program/525)

Courses in "CHEM-Chemistry"

**CHEM - Chemistry**

**CHEM 104 Fundamentals of Organic and Biochemistry (4)** Three hours of lecture, three hours of laboratory, and one hour of discussion/recitation per week. Prerequisite: CHEM103 or CHEM131/132. Credit will be granted for only one of the following: CHEM104 or CHEM231/232 or CHEM233 or CHEM237. Intended for students whose curricula require one year of chemistry. Students requiring two or more years of chemistry should register for CHEM233 or CHEM237. The chemistry of carbon: aliphatic compounds, aromatic compounds, stereochemistry, halides, amines, and amides, acids, esters, carbohydrates, and natural products.

**CHEM 131 Chemistry I - Fundamentals of General Chemistry (3)** Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: Placement in MATH113 or MATH115. Corequisite: CHEM132.
Credit will be granted for only one of the following: CHEM103, CHEM131, CHEM135, CHEM143 or CHEM146. Formerly CHEM 103. An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM131 is the first course in a four-semester sequence for students majoring in the sciences, other than Chemistry and Biochemistry majors.

CHEM 132 General Chemistry I Laboratory (1) Three hours of laboratory per week. Corequisite: CHEM131. Credit will be granted for only one of the following: CHEM103, CHEM132, CHEM136, CHEM143 or CHEM147. Formerly CHEM 103. Introduction to the quantification of chemical substances, including the concept of the mole and chemical stoichiometry. Additional work involves the synthesis of ionic substances and their qualitative characterization. Must be taken concurrently with CHEM131.

CHEM 135 General Chemistry for Engineers (3) Three hours of lecture and one hour of discussion/recitation per week. Pre- or corequisite: MATH115. Not open to students who have completed CHEM103, CHEM113, CHEM143, or CHEM153. Credit will be granted for only one of the following: CHEM103, CHEM113, CHEM135, CHEM143, OR CHEM153. The nature and composition of matter, solutions, chemical reactions, equilibria, and electrochemistry, with applications to various fields of engineering.

CHEM 136 General Chemistry Laboratory for Engineers (1) Three hours of laboratory per week. Pre- or corequisite: CHEM135. For ENGR majors only. A laboratory course for engineering majors intending to take CHEM231 and CHEM232.

CHEM 146 Principles of General Chemistry (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: Placement in MATH115 or higher. Corequisite: CHEM147. For CHEM and BCHM majors only. Credit will be granted for only one of the following: CHEM103, CHEM113, CHEM135, CHEM143 or CHEM146. Formerly CHEM 143. An overview of the Periodic Table, inorganic substances, ionic and covalent bonding, bulk properties of materials, chemical equilibrium, and quantitative chemistry. CHEM146 is the first course in a four-semester sequence for Chemistry and Biochemistry majors.

CHEM 147 Principles of Chemistry Laboratory (1) Four hours of laboratory per week. Corequisite: CHEM146. For CHEM and BCHM majors only. Credit will be granted for only one of the following: CHEM103, CHEM132, CHEM136, CHEM143 or CHEM147. Formerly CHEM 143. Introduction to the synthesis and characterization of inorganic substances. Must be taken concurrently with CHEM146.

CHEM 231 Organic Chemistry I (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: {CHEM131 and CHEM132} or {CHEM113 or CHEM153} or {CHEM135 and CHEM136} or {CHEM146 and CHEM147}. A grade of C or better in the prerequisite is required of Life Science majors and recommended for all students. Not open to students who have completed CHEM104, CHEM231, CHEM233 or CHEM237. Formerly CHEM 233. The chemistry of carbon: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters and spectroscopy.

CHEM 232 Organic Chemistry Laboratory I (1) Prerequisite: {CHEM131 and CHEM132} or {CHEM113 or CHEM153} or {CHEM135 and CHEM136} or {CHEM146 and CHEM147}. A grade of C or better in the prerequisites is required for Life Science majors and recommended for all students. Corequisite: CHEM231. Not open to students who have completed CHEM104, CHEM233 or CHEM237. Credit will be granted for only one of the following: CHEM104, CHEM231, CHEM233 or CHEM237. Formerly CHEM 233. Provides experience in developing some basic laboratory techniques, recrystallization, distillation, extraction, chromatography.

CHEM 237 Principles of Organic Chemistry I (4) Three hours of lecture and four hours of laboratory per week. Prerequisite: A grade of C or better in {CHEM131 and CHEM132} or {CHEM146 and CHEM147} or CHEM113 or CHEM133 or CHEM153 or permission of department is required for Life Science majors. For CHEM, BCHM, and ENCH majors only. Credit will be granted for only one of the following: CHEM233 or CHEM237. The chemistry of carbons: aliphatic compounds, aromatic compounds, stereochemistry, arenes, halides, alcohols, esters, and spectroscopy.

CHEM 241 Organic Chemistry II (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: {CHEM231 and CHEM232} or CHEM233 or CHEM237. A grade of C or better in the prerequisite is required for Life Science majors and recommended for all students. Corequisite: CHEM241. Not open to students who have completed CHEM243 or CHEM247. Formerly CHEM 243. A continuation of CHEM231 with emphasis on molecular structure; substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

CHEM 242 Organic Chemistry Laboratory II (1) Prerequisite: {CHEM231 and CHEM232} or CHEM233 or CHEM237. A grade of C or better in the prerequisite is required for Life Science majors or recommended for all students. Corequisite: CHEM241. Not open to students who have completed CHEM243 or CHEM247. Formerly CHEM 243. Synthetic organic chemistry through functional group manipulation, introduction to instrumentation essential to analysis and structure elucidation.

CHEM 247 Principles of Organic Chemistry II (4) Three hours of lecture and four hours of laboratory per week. Prerequisite: A grade of C or better in CHEM237 or permission of department. The "C" or better in the prerequisite is required for Life Science majors. For CHEM, BCHM, ENCH majors, and honors students only. Credit will be granted for only one of the following: CHEM243 or CHEM247. A continuation of CHEM237 with
emphasis on molecular structure, substitution reactions; carbonium ions; aromaticity; synthetic processes; macromolecules.

**CHEM 271 General Chemistry and Energetics (2)** Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: CHEM241 and CHEM242; or CHEM247. A grade of C or better in the prerequisites for Life Sciences majors and recommended for all students. Corequisite: CHEM272. Not open to students who have completed CHEM113. Credit will be granted for only one of the following: CHEM113, CHEM153, CHEM271 or CHEM276. Formerly CHEM 113. An introduction to the physical aspects of chemistry; chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

**CHEM 272 General Bioanalytical Chemistry Laboratory (2)** One hour of lecture and three hours of laboratory per week. Prerequisite: CHEM241 and CHEM242; or CHEM247. A grade of C or better in the prerequisites is required for Life Sciences majors and recommended for all students. Corequisite: CHEM271. Credit will be granted for only one of the following: CHEM227, CHEM272 or CHEM277. An introduction to analytical chemistry with an emphasis on bio-analytical instrumentation and techniques.

**CHEM 276 General Chemistry and Energetics - Majors (2)** Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: CHEM 241 and CHEM242; or CHEM247. A grade of C or better in the prerequisite is required. Corequisite: CHEM277. For CHEM and BCHM majors only. Credit will be granted for only one of the following: CHEM113, CHEM153, CHEM 271 or CHEM276. Formerly CHEM 153. An introduction to the physical aspects of chemistry for Biochemistry and Chemistry majors. Chemical kinetics, thermodynamics and electrochemistry in the context of current chemistry research.

**CHEM 277 Fundamentals of Analytical and Bioanalytical Chemistry Laboratory (3)** One hour of lecture and six hours of laboratory per week. Prerequisite: CHEM241 and CHEM242; or CHEM247. A grade of C or better in the prerequisite is required. Corequisite: CHEM276. For CHEM and BCHM majors only. Credit will be granted for only one of the following: CHEM153, CHEM227, CHEM272 or CHEM277. Formerly CHEM 153. Quantitative analysis, inorganic analytical chemistry, and an introduction to bio-analytical instrumentation and techniques.

**CHEM 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**CHEM 395 Professional Issues in Chemistry and Biochemistry (1)** Junior standing. For CHEM and BCHM majors only. Seminar on professional issues. Professional responsibilities, ethics, interview techniques, career opportunities, graduate/professional school, race and gender issues.

**CHEM 398 Special Projects (2)** Honors projects for undergraduate students.

**CHEM 399 Introduction to Chemical Research (1-3)** Prerequisite: permission of department. Junior standing. Repeatable to 6 credits. Basic (chemical) research conducted under the supervision of a faculty member.

**CHEM 401 Inorganic Chemistry (3)** Prerequisite: {CHEM241 and CHEM242} or CHEM243 or CHEM247. An overview of basic concepts of the electronic structure of the elements, chemical bonding and reactivity, from simple diatomic molecules to coordination compounds. These are viewed from simple (Lewis) to the most comprehensive molecular orbital theory. Symmetry and group theory are used throughout the course.

**CHEM 403 Radiochemistry (3)** Prerequisite: one year of college chemistry and one year of college physics. Radioactive decay; introduction to properties of atomic nuclei; nuclear processes in cosmology; chemical, biomedical and environmental applications of radioactivity; nuclear processes as chemical tools; interaction of radiation with matter.

**CHEM 425 Instrumental Methods of Analysis (4)** Two hours of lecture and six hours of laboratory per week. Prerequisite: {CHEM153 or CHEM227} or {CHEM271 and CHEM272} or {CHEM276 and CHEM277}. Modern instrumentation in analytical chemistry. Electronics, spectroscopy, chromatography and electrochemistry.

**CHEM 441 Advanced Organic Chemistry (3)** Prerequisite: CHEM481. Also offered as CHEM641. An advanced study of the compounds of carbon, with special emphasis on molecular orbital theory and organic reaction mechanisms.

**CHEM 450 Ethics in Science and Engineering (3)** Prerequisite: 8 credits laboratory science or permission of department. Ethical issues in science and their resolutions. Topics will be ethics and scientific truth, ethics and other scientists, and ethics and society.

**CHEM 460 Structure Determination Using Spectroscopic Methods (3)** Prerequisite: {CHEM243 or CHEM247} or {CHEM241 or CHEM242}. Formerly CHEM 660. The use of infrared, ultraviolet-visible, proton and carbon-13 nuclear magnetic resonance and mass spectroscopy for structure determination in organic chemistry.
CHEM 474 Environmental Chemistry (3) Prerequisite: CHEM481 or equivalent. The sources of various elements and chemical reactions between them in the atmosphere and hydrosphere are treated. Causes and biological effects of air and water pollution by certain elements are discussed.

CHEM 481 Physical Chemistry I (3) Prerequisite: A grade of C or better in CHEM113, CHEM135, or CHEM153, or (CHEM271 and CHEM272), or (CHEM276 and CHEM277); and MATH141 and PHYS142. The "C" or better in prerequisites is required for Life Science majors. A course primarily for chemists and chemical engineers.

CHEM 482 Physical Chemistry II (3) Prerequisite: A Grade of C or better in CHEM481. The "C" or better is required for Life Science majors. A course primarily for chemists and chemical engineers.

CHEM 483 Physical Chemistry Laboratory I (2) One hour lecture-recitation and one three-hour laboratory period per week Corequisite: CHEM481. An introduction to the principles and application of quantitative techniques in physical chemical measurements. Experiments will be coordinated with topics in CHEM481.

CHEM 484 Physical Chemistry Laboratory II (2) One hour lecture-recitation and one three-hour laboratory period per week. Prerequisite: CHEM481 and CHEM483. Corequisite: CHEM482. A continuation of CHEM 483. Advanced quantitative techniques necessary in physical chemical measurements. Experiments will be coordinated with topics in CHEM 482.

CHEM 491 Advanced Organic Chemistry Laboratory (4) One hour of lecture and 10 hours of laboratory per week. Prerequisite: CHEM243. Formerly CHEM433 and CHEM443. Credit will be granted for only one of the following: CHEM433 and CHEM443 or CHEM491. Advanced synthetic techniques in organic chemistry with an emphasis on spectroscopy for structure determination.

CHEM 492 Advanced Inorganic Chemistry Laboratory (3) One hour of lecture and eight hours of laboratory per week. Corequisite: CHEM401. Synthetic and structural inorganic chemistry. Emphasis on spectroscopy methods for structure determination. Students complete an individual special project. (Designed to satisfy the university requirement for a Capstone course in chemistry.)

CHEM 493 Advanced Synthesis Laboratory (3) One hour of lecture and eight hours of laboratory per week. Prerequisite: {CHEM241 and 242} or CHEM243 or {CHEM247 and CHEM401}. A grade of C or better in the prerequisite is required for Life Science majors and recommended for all students. Formerly: CHEM491 and CHEM492. Credit will be granted for only one of the following: CHEM491 and CHEM492; or CHEM493. A course in advanced synthesis of organic and inorganic compounds.

CHEM 498 Special Topics in Chemistry (3) Three lectures or two lectures and one three-hour laboratory per week. Prerequisite varies with the nature of the topic being considered. Course may be repeated for credit if the subject matter is substantially different, but not more than three credits may be accepted in satisfaction of major supporting area requirements for chemistry majors.

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Chapter 8: Approved Courses

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Select Program: CHIN - Chinese

Course Number: Search

Courses in "CHIN-Chinese"

**CHIN - Chinese**

**CHIN 101 Intensive Elementary Chinese I (6)** Non-majors admitted only after a placement interview. Introduction to speaking, reading, and writing Chinese with an emphasis on mastering the essentials of pronunciation, basic characters and structural patterns.

**CHIN 102 Elementary Spoken Chinese (3)** Prerequisite: CHIN101 or equivalent and permission of department. Non-majors admitted only after a placement interview. Continued study of grammatical patterns and vocabulary build up with particular emphasis on conversation. May be taken in conjunction with CHIN 103.

**CHIN 103 Elementary Written Chinese (3)** Prerequisite: CHIN101 or equivalent and permission of
Department. Non-majors admitted only after a placement interview. Continued study of grammatical patterns and buildup of vocabulary with particular emphasis on reading and writing. May be taken in conjunction with CHIN102.

CHIN 105 Elementary Chinese - Accelerated Track (3) Prerequisite: permission of department. Not open to students who have completed CHIN101, CHIN102, or CHIN103. Accelerated instruction in Mandarin Chinese at the elementary level for students with prior Chinese language background, either through home use or formal instruction.

CHIN 201 Intermediate Spoken Chinese I (3) Prerequisite: CHIN102 or equivalent and permission of department. Non-majors admitted only after a placement interview. Emphasis on development of conversational skills with vocabulary build-up and controlled conversation.

CHIN 202 Intermediate Written Chinese I (3) Prerequisite: CHIN103 or equivalent and permission of department. Non-majors admitted only after a placement interview. Reading and writing skills with emphasis on grammar and Chinese characters.

CHIN 203 Intermediate Spoken Chinese II (3) Prerequisite: CHIN201 or equivalent and permission of department. Non-majors admitted only after a placement interview. Continuation of CHIN201.

CHIN 204 Intermediate Written Chinese II (3) Prerequisite: CHIN202 or equivalent and permission of department. Non-majors admitted only after a placement interview. Continuation of CHIN202.

CHIN 205 Intermediate Chinese - Accelerated Track (3) Prerequisite: permission of department. Not open to students who have completed CHIN201, CHIN202, CHIN203, or CHIN204. Accelerated instruction in Mandarin Chinese at the intermediate level for students with prior Chinese language background, either through home use or formal instruction.

CHIN 207 Linguistic Resources for Students of Chinese (3) One hour of lecture and two hours of discussion/recitation per week. Prerequisite: CHIN102 and CHIN103, or CHIN105. Not open to students who have completed CHIN428, CHIN421 or CHIN422. Training in the use of Chinese dictionaries, introduction to the relationship between traditional and simplified Chinese characters, overview of the main regional variations of Mandarin, review of elementary grammar.

CHIN 213 Chinese Poetry into English: An Introduction (3) Issues in the intercultural and interlingual interpretation of foreign literature through the study of Western translations of and scholarship on selected Chinese poets. No knowledge of Chinese required.

CHIN 220 Beginning Chinese Calligraphy (3) Not open to students who have completed CHIN331. Credit will be granted for only one of the following: CHIN220 or CHIN331. Introduction to techniques, history, and culture of Chinese calligraphy. Extensive hands-on practice.

CHIN 231 Chinese Thought and Literature in Translation (3) Writing of the major poets, essayists, and historians from the 10th century B.C. to the 12th century A.D. No knowledge of Chinese is required.

CHIN 232 Chinese Fiction and Drama in Translation (3) Representative short stories, novels, and plays from the third through the nineteenth centuries. No knowledge of Chinese is required.

CHIN 233 Modern Chinese Literature in Translation (3) Major works of fiction and drama from 1920 to the present read in the context of social and literary change. Emphasis on western and traditional Chinese influences on the writers and their works. No knowledge of Chinese required.

CHIN 234 Traditional Chinese Values (3) Three hours of lecture and three hours of discussion/recitation per week. Classical Chinese thought and literature in English translation. Discussions will explore what these writings reflect about traditional Chinese ideas on morality and personal values -- how should a person live,
and why? What do the main philosophical schools have to say about the question?

**CHIN 321 Classical Chinese I (3)** Prerequisite: Satisfactory placement on departmental placement test. Credit will be granted for only one of the following: CHIN321 or CHIN403. Formerly CHIN 403. Introductory classical Chinese using literacy and historical sources in the original language.

**CHIN 322 Classical Chinese II (3)** Prerequisite: CHIN321, CHIN403, or permission of department. Credit will be granted for only one of the following: CHIN322 or CHIN404. Formerly CHIN 404. Further classical studies by various writers from famous ancient philosophers to prominent scholars before the new culture movement.

**CHIN 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**CHIN 388 Topics in Chinese Literature in Translation (3)** Repeatable to 6 credits if content differs. Analysis of significant themes and structures in Chinese literature. No knowledge of Chinese required.

**CHIN 389 Language House Spring Colloquium (1)** Prerequisite: Residence in Language House. Repeatable to 8 credits. For students residing in the Language House Immersion Program. Focuses on the development of skills in the target language and acquiring the cultural knowledge of the countries that speak the target language.

**CHIN 401 Readings in Modern Chinese I (3)** Prerequisite: CHIN302 or equivalent. Non-majors admitted only after a placement interview. Readings in history, politics, economics, sociology, and literature. Emphasis on wide-ranging, rapid reading, reinforced by conversations and compositions.

**CHIN 402 Readings in Modern Chinese II (3)** Prerequisite: CHIN401 or equivalent. Non-majors admitted only after a placement interview. Continuation of CHIN401.

**CHIN 403 Classical Chinese I (3)** Prerequisite: CHIN302. Introductory classical Chinese using literary and historical sources in the original language.

**CHIN 404 Classical Chinese II (3)** Prerequisite: CHIN302. Further classical studies by various writers from famous ancient philosophers to prominent scholars before the new culture movement.

**CHIN 408 Selected Readings in Classical Chinese (3)** Three hours of lecture and three hours of discussion/recitation per week. Prerequisites: CHIN321 or CHIN403 at UMCP or pass a placement test offered by the Chinese Program; and must know Pinyin. Students who do not know Pinyin must learn it before the end of the first week of classes or they will be required to drop. Repeatable to 9 credits if content differs. Selected readings in Classical Chinese, including important representative works of history, poetry, and parallel prose. Close attention is paid to matters of grammar and phonology in the readings. Content will differ each time this course is offered.

**CHIN 411 Business Chinese I (3)** Prerequisite: CHIN402 or permission of department. Non-majors admitted only after a placement interview. Not open to students who have completed CHIN303. Conversation, reading, and writing applicable to Chinese business transactions, social meetings, and meetings with government organizations, plus background material in English on professional business practices and social customs associated with business.

**CHIN 412 Business Chinese II (3)** Prerequisite: CHIN411 or permission of department. Non-majors admitted only after a placement interview. Not open to students who have completed CHIN304. Continuation of CHIN411.

**CHIN 413 Advanced Conversation and Composition (3)** Prerequisite: CHIN402 or permission of department. Non-majors admitted only after a placement interview. Not open to students who have completed CHIN405. Practice in writing essays, letters, and reports on selected topics. Conversation directed toward everyday situations and topics related to life in China.

**CHIN 415 Readings in Current Newspapers and Periodicals (3)** Prerequisite: CHIN402 or equivalent. Non-majors admitted only after a placement interview. Reading of periodical literature on selected topics with discussions and essays in Chinese.

**CHIN 418 Special Topics in Contemporary Chinese Fiction and Film (3)** Prerequisite: permission of department. Repeatable to 12 credits if content differs. Various approaches to the most recent textual productions of China and Taiwan. Taught in Chinese.

**CHIN 421 Sounds and Transcriptions of Mandarin Chinese (3)** Production and recognition of Mandarin speech sounds and tones, their phonological patterns, comparison with English, and representation by the various Romanization systems.
CHIN 422 Advanced Chinese Grammar (3) Prerequisite: CHIN302, CHIN322, or permission of department. Chinese sentence patterns studied contrasted with English and in terms of current pedagogical as well as linguistic theories.

CHIN 423 Chinese Historical and Dialect Phonology (3) Prerequisite: CHIN302 or JAPN405. Formerly CHIN 428B. The history and structure of the sounds of Chinese language, with emphasis on the Medieval formal phonological system and its relationship to Mandarin and other modern languages. Students are expected to have advanced knowledge of written Chinese graphs (may include Japanese kanji or Korean hanja).

CHIN 424 Linguistics of the Chinese Writing System (3) Prerequisite: CHIN302 or JAPN405. Recommended: CHIN423. Also offered as SLAA798A. Formerly CHIN 428A. The history and structure of the Chinese writing system, with emphasis on its early development and place in the cognition of language. Students are expected to have advanced knowledge of written Chinese graphs (may include Japanese kanji or Korean hanja).

CHIN 428 Selected Topics in Chinese Linguistics (3) Prerequisite: permission of department. Sophomore standing. Repeatable to 12 credits if content differs. Undergraduate seminar in Chinese linguistics. Topics may include the ancient writing system, historical phonology, dialectology, prosody and rhyming, grammar and the history of the language as a whole. This course may be repeated with different content, and satisfies the linguistics requirement for the Chinese major. Students are expected to be in at least Third Year Chinese. Taught in English.

CHIN 431 Translation and Interpretation I (3) Prerequisite: CHIN302 or equivalent and permission of department. Theory and practice of Chinese/English translation and interpretation with emphasis on translation.

CHIN 432 Translation and Interpretation II (3) Prerequisite: CHIN402 or equivalent and permission of department. Workshop on Chinese/English translation and interpretation, with emphasis on seminar (consecutive) interpretation and introduction to conference (simultaneous) interpretation.

CHIN 441 Traditional Chinese Fiction (3) Prerequisite: permission of department. Major works of fiction from the 4th century tales of the marvelous through the 19th century Ching novel. Taught in Chinese.

CHIN 442 Modern Chinese Fiction (3) Prerequisite: permission of department. Examination, through selected texts, of the writer’s role as shaper and reflector of the Republican and Communist revolutions. Taught in Chinese.

CHIN 499 Directed Study in Chinese (1-3) Prerequisite: permission of instructor. Repeatable to 6 credits if content differs. Readings in Chinese under faculty supervision.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: CLAS - Classics

Course Number:  

Search

Courses in "CLAS- Classics"

CLAS - Classics

CLAS 100 Classical Foundations (3) Aspects of the ancient world taught through the medium of influential classical texts.

CLAS 170 Greek and Roman Mythology (3) Taught in English, no prerequisite: cannot be taken for language credit. This course is particularly recommended for students planning to major in foreign languages, English, history, the fine arts, or journalism.

CLAS 171 Classical Myths in Europe (1) Prerequisite: CLAS170. Freshman standing. The role which Classical Myths have played in the arts, architecture and politics of a major European city. This will only be...
offered through the study abroad program.

**CLAS 270 Greek Literature in Translation (3)** Selections in translation of Greek literature from Homer to Lucian, with special emphasis on epic and dramatic poetry. No knowledge of Greek or Latin is required.

**CLAS 271 Roman Literature in Translation (3)** Selections in translation of Latin literature to the time of Apuleius. Special emphasis will be placed on poetry of the Augustan Age. No knowledge of Latin is required.

**CLAS 308 The Classics in Context (1-3)** Three hours of lecture per week. Prerequisite: permission of department. Repeatable to 9 credits if content differs. A Study Abroad course which introduces students to the topography, archaeology and culture of the ancient Mediterranean world.

**CLAS 309 Special Topics in Classical Literature (3)** Repeatable to 9 credits if content differs. Readings in translation.

**CLAS 310 Ancient Philosophy (3)** Prerequisite: six credits in classics or philosophy. Credit will be granted for only one of the following: CLAS310 or PHIL310. The origins and development of philosophy and science in Ancient Greece, focusing on the pre-Socratics, Socrates, Plato and Aristotle.

**CLAS 315 Greek and Roman Athletics (3)** The origin and evolution of athletics in ancient Greece and Rome studied as recreation, as play, as education, as a profession and as mass entertainment.

**CLAS 320 Women in Classical Antiquity (3)** Also offered as WMST320. Credit will be granted for only one of the following: CLAS320 or WMST320. A study of women's image and reality in ancient Greek and Roman societies through an examination of literary, linguistic, historical, legal and artistic evidence; special emphasis in women's role in the family, views of female sexuality, and the place of women in creative art. Readings in primary sources in translation and modern critical writings.

**CLAS 330 Ancient Greek Religion: Gods, Myths, Temples (3)** Survey of Greek religious ideas and practices as they evolve from the Bronze Age to the early Christian period.

**CLAS 331 Roman Religion: From Jupiter to Jesus (3)** Formerly CLAS 3091. Survey of the major institutions of Roman state and private religion and of the diverse religions, including Judaism and Christianity, practiced in the Roman empire.

**CLAS 370 Classical Myths in America (3)** Prerequisite: CLAS170. Sophomore standing. Credit will be granted for only one of the following: CLAS370 or HONR269W. Formerly HONR 269W. The role which Greek and Roman Myths have played in American culture and politics.

**CLAS 372 Classical Epic (3)** Introduction to major classical epic poems in translation.

**CLAS 374 Greek Tragedy in Translation (3)** Study and analysis of the tragedies of Aeschylus, Sophocles and Euripides with special attention to the concepts of character and of thought as conceived by Aristotle in The Poetics.

**CLAS 375 Ancient Comedy (3)** Representative plays by Aristophanes, Menander, Plautus and Terence in translation; examination of Greek tradition in Roman and postclassical periods.

**CLAS 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**CLAS 419 The Classical Tradition (3)** Two hours of lecture and one hour of discussion/recitation per week. Repeatable to 9 credits if content differs. Credit will be granted for only one of the following: CLAS419 or CLAS420. Formerly CLAS 420. Examination of the role of Greek and Roman civilization in shaping the arts and ideas of western culture.

**CLAS 470 Approaches to Greek Mythology (3)** Prerequisite: CLAS170 or permission of department. Ancient and modern approaches to understanding Greek myth as expression of human experience, including interpretations drawn from psychology, anthropology, and comparative mythology.

**CLAS 488 Independent Study in Classical Civilization (3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs.

**CLAS 495 Senior Thesis in Classics (3)** Prerequisite: permission of department. Prior departmental approval of research topic is required. Available to all students who wish to pursue a specific research topic.

**CLAS 499 Independent Study in Classical Languages and Literatures (1-3)** Prerequisite: permission of department.
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Select Program: CMLT - Comparative Literature

Course Number:

Search

Courses in "CMLT-Comparative Literature"

CMLT - Comparative Literature

CMLT 214 Film Form and Culture (3) Introduction to film forms in international perspective. Emphasis on the techniques of film analysis, distinctions among film genres, and the history of cinema.

CMLT 235 Introduction to the Literatures of the African Diaspora (3) Credit will be granted for only one of the following: CMLT235 or ENGL235. Introduction to authors, periods, and genres reflecting the diversity of African and African Diaspora cultures.

CMLT 270 Global Literature and Social Change (3) Comparative study of literature through selected literary works from several non-Western cultures, viewed cross-culturally in light of particular social, political,
and economic perspectives.

CMLT 275 World Literature by Women (3) Also offered as WMST275. Credit will be granted for only one of the following: CMLT275 or WMST275. Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women’s literary representations.

CMLT 277 Literatures of the Americas (3) Comparative study of several North, South, and Central American cultures with a focus on the specificities, similarities, and divergences of their literary and cultural texts.

CMLT 280 Film Art in a Global Society (3) Two hours of lecture and two hours of laboratory per week. Comparative study of a variety of film traditions from around the world, including cinema from Hollywood, Europe, Asia and developing countries, with a stress on different cultural contexts for film-making and viewing.

CMLT 291 International Perspectives on Lesbian and Gay Studies (3) Exploration of the construction and representation of sexualities in cultures around the globe, with particular emphasis on literature and media.

CMLT 298 Topics in Comparative Studies (3-6) Repeatable to 9 credits if content differs.

CMLT 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

CMLT 415 The Hebrew Bible (3) A study of sources, development and literary types.

CMLT 469 The Continental Novel (3) The novel in translation from Stendhal through the existentialists, selected from literatures of France, Germany, Italy, Russia, and Spain.

CMLT 479 Major Contemporary Authors (3)

CMLT 488 Genres (3) Repeatable to 6 credits if content differs. A study of a recognized literary form, such as tragedy, film, satire, literary criticism, comedy, tragicomedy, etc.

CMLT 489 Major Writers (3) Each semester two major writers from different cultures and languages will be studied. Authors will be chosen on the basis of significant relationships of cultural and aesthetic contexts, analogies between their respective works, and the importance of each writer to his literary tradition.

CMLT 498 Selected Topics in Comparative Studies (3)

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Select Program: CMPS - Computer, Mathematical and Physical Sciences

Course Number:

Courses in "CMPS-Computer, Mathematical and Physical Sciences"

CMPS 181 At the Edge of Discovery with CMPS Scientists (1) Restricted to New CMPS students. This course will bring entering CMPS majors into direct contact with some of the most exciting scientific research problems today in the wide range of the disciplines in the college, through the eyes of the scientists who are on the front lines.

CMPS 299 Special Topics (.50-3) Prerequisite: By permission of the CMPS Dean's Office. For CMPS majors only. Repeatable to 8 credits if content differs.

CMPS 496 NASA Academy (4) Two hours of lecture and four hours of laboratory per week. Prerequisite:
College Permission. Junior standing. Also offered as ENES496 or GEOG496. Credit will be granted for only one of the following: CMPS496, ENES496 or GEOG496. A ten-week resident summer institute at Goddard Space Flight Center for juniors, seniors and first-year graduate students interested in pursuing professional and leadership careers in aerospace-related fields. The national program includes research in a Goddard laboratory, field trips to NASA centers, and a combination of lectures and workshops on the mission, current activities and management of NASA. Students interested in the Academy will find information at http://www.nasa-academy.nasa.gov Application should be made by the end of January; sponsorship by an affiliated State Space Grant Consortium is customary, but not required.

**CMPS 497 Experiential Learning (1-3)** Prerequisite: Permission of CMPS Department. For CMPS majors only. This course is part of the experiential learning internship program, Corporate Scholars, set up by the college and industry. It offers students an opportunity to gain practical experience in their chosen career fields. Fall semester only.

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Select Program: CMSC - Computer Science

Course Number: 

Search

Courses in "CMSC-Computer Science"

CMSC - Computer Science

CMSC 102 Introduction to Information Technology (3) For non-majors only. Not recommended for BMGT students. Not open to students who have completed CMSC106, CMSC114, CMSC132 or CMSC214. Credit will be granted for only one of the following: CMSC102, CMSC132 or CMSC214. If CMSC102 is taken before CMSC132 or CMSC214, then credit will be granted for both. An introduction to computer terminology and concepts of computing and information technology. Hands-on experience with a variety of tools available to access the Internet, to find information, as well as PC applications such as a word processor and a spreadsheet package. Students will work in multiple environments (for example, both Windows and UNIX).

CMSC 106 Introduction to C Programming (4) Three hours of lecture and two hours of laboratory per week. Prerequisite: permission of department. Pre- or corequisite: MATH140. Only for CMPS, ENCP and
students with major code: 2299F. Not open to students who have completed CMSC114 or higher. Design and analysis of programs in C. An introduction to computing using structured programming concepts. For further information contact the Undergraduate Education Office, Computer Science Department.

**CMSC 107 Introduction to the UNIX Operating System (3)** Recommended: prior experience with computing. Effective use of UNIX tools for students of all disciplines. UNIX file system; shell programming; text editing; filters; pipes; macro processing; data analysis; text processing; document maintenance.

**CMSC 114 Computer Science I (4)** Three hours of lecture and two hours of laboratory per week. Prerequisite: CMSC106 with a grade of C or better; and permission of department based on satisfactory performance on the department's placement exams. Corequisite: MATH141. Not open to students who have completed CMSC214 or higher. Credit will be granted for only one of the following: CMSC114 or CMSC113. With CMSC214, this course forms a one-year sequence for computer science majors. Introduction to UNIX. Procedural and data abstraction using C++. CMPS and Computer Engineering students will be given priority for registration until the first day of classes.

**CMSC 131 Object-Oriented Programming I (4)** Three hours of lecture and two hours of discussion/recitation per week. Corequisite: MATH140 and permission of department. Not open to students who have completed CMSC114. Introduction to programming and computer science. Emphasizes understanding and implementation of applications using object-oriented techniques. Develops skills such as program design and testing as well as implementation of programs using a graphical IDE. Programming done in Java.

**CMSC 132 Object-Oriented Programming II (4)** Three hours of lecture and two hours of discussion/recitation per week. Prerequisite: CMSC131 with a grade of C or better; or a score of 5 on the AP Exam; or a score of 4 or 5 on the AB Java AP exam; or permission of the department based on satisfactory performance on the department placement exam and permission of department. Corequisite: MATH141. Introduction to the use of computers to solve problems using software engineering principles. Design, build, test, and debug medium-size software systems and learn to use relevant tools. Use object-oriented methods to create effective and efficient problem solutions. Use and implement application programming interfaces (APIs). Programming done in Java.

**CMSC 198 Special Topics in Computer Science for Non-Majors (1-4)** Repeatable to 6 credits if content differs. Not open to CMSC students. A course designed to allow non-computer science majors and non-computer engineering majors to pursue a specialized topic or project.

**CMSC 212 Introduction to Low-Level Programming Concepts (4)** Three hours of lecture and two hours of discussion/recitation per week. Prerequisite: CMSC132 with a grade of C or better; or permission of the department based on satisfactory performance on the department placement exam and permission of department. Corequisite: CMSC250. Introduction to many of the concepts that lie behind software, such as hardware, memory layout, memory management, and operating systems. Explain how these concepts affect the design of software systems.

**CMSC 214 Computer Science II (4)** Three hours of lecture and two hours of laboratory per week. Prerequisites: CMSC114 with a grade of C or better; or a score of 4 or 5 on either the A or the AB C++ AP exam; or permission of department based on satisfactory performance on the department placement exam. Corequisite: CMSC250. Credit will be granted for only one of the following: CMSC214 or CMSC113. Elementary data structures, recursion, and object-oriented programming using C++.

**CMSC 250 Discrete Structures (4)** Three hours of lecture and two hours of discussion/recitation per week. Prerequisite: CMSC131 with a grade of C or better; MATH141; and permission of department. Formerly CMSC 150. Fundamental mathematical concepts related to computer science, including finite and infinite sets, relations, functions, and propositional logic. Introduction to other techniques, modeling and solving problems in computer science. Introduction to permutations, combinations, graphs, and trees with selected applications.

**CMSC 297 Honors Seminar (1)** An introduction to the breadth of computer science research. Intended for all Computer Science Honors students, especially those considering a career in research. Will cover work from some of the key figures in the history of computer science, as well as research being pursued at Maryland.

**CMSC 298 Special Topics in Computer Science (1-4)** Prerequisite: permission of department. Repeatable to 6 credits if content differs. A course designed to allow a lower level student to pursue a specialized topic or project.

**CMSC 311 Computer Organization (3)** Prerequisite: CMSC212 and CMSC250 each with a grade of C (2.0) or better; and permission of department. Introduction to assembly language. Design of digital logic circuits. Organization of central processors, including instruction sets, register transfer operations, control microprogramming, data representation, and arithmetic algorithms. Memory and input/output organization.

**CMSC 330 Organization of Programming Languages (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: CMSC212 and CMSC250: each with a grade of C (2.0) or better; and permission of department. The semantics of programming languages and their run-time organization. Several
different models of languages are discussed, including procedural (e.g., C, Pascal), functional (e.g., ML, LISP), rule-based (e.g., Prolog), and object-oriented (e.g., C++, Smalltalk). Run-time structures, including dynamic versus static scope rules, storage for strings, arrays, records, and object inheritance are explored.

**CMSC 351 Algorithms (3)** Prerequisite: CMSC212 and CMSC250: each with a grade of C (2.0) or better; and permission of department. CMSC351 may not count as one of the required upper level CMSC courses for students who are required to have 54 credits for graduation, i.e. for students who became computer science majors prior to Fall, 2002. Credit will be granted for only one of the following: CMSC251 or CMSC351. Formerly CMSC 251. A systematic study of the complexity of some elementary algorithms related to sorting, graphs and trees, and combinatorics. Algorithms are analysed using mathematical techniques to solve recurrences and summations.

**CMSC 390 Honors Paper (3)** Prerequisite: admission to CMSC Honors Program. Special study or research directed toward preparation of honors paper.

**CMSC 411 Computer Systems Architecture (3)** Prerequisite: A grade of C or better in (CMSC311 or ENEE350) and a grade of C or better in CMSC330; and permission of department; or CMSC graduate student. Input/output processors and techniques. Intra-system communication, buses, caches. Addressing and memory hierarchies. Microprogramming, parallelism, and pipelining.

**CMSC 412 Operating Systems (4)** Three hours of lecture and two hours of laboratory per week. Prerequisites: A grade of C or better in (CMSC311 or ENEE350) and a grade of C or better in CMSC330; and permission of department; or CMSC graduate student. An introduction to batch systems, spooling systems, and third-generation multiprogramming systems. Description of the parts of an operating system in terms of function, structure, and implementation. Basic resource allocation policies.

**CMSC 414 Computer and Network Security (3)** Prerequisite: A grade of C or better in (CMSC311 or ENEE350) and a grade of C or better in CMSC330; and permission of department; or CMSC graduate student. An introduction to the topic of security in the context of computer systems and networks. Identify, analyze, and solve network-related security problems in computer systems. Fundamentals of number theory, authentication, and encryption technologies, as well as the practical problems that have to be solved in order to make those technologies workable in a networked environment, particularly in the wide-area Internet environment.

**CMSC 417 Computer Networks (3)** Prerequisite: A grade of C or better in CMSC351, a grade of C or better in (CMSC311 or ENEE350), and a grade of C or better in CMSC330; and permission of department; or CMSC graduate student. Computer networks and architectures. The OSI model including discussion and examples of various network layers. A general introduction to existing network protocols. Communication protocol specification, analysis, and testing.

**CMSC 420 Data Structures (3)** Prerequisites: A grade of C or better in CMSC330 and in CMSC351; and permission of department; or CMSC graduate student. Description, properties, and storage allocation of data structures including lists and trees. Algorithms for manipulating structures. Applications from areas such as data processing, information retrieval, symbol manipulation, and operating systems.

**CMSC 421 Introduction to Artificial Intelligence (3)** Prerequisites: A grade of C or better in CMSC330 and in CMSC351; and permission of the department or CMSC graduate student. Areas and issues in artificial intelligence, including search, inference, knowledge representation, learning, vision, natural languages, expert systems, robotics. Implementation and application of programming languages (e.g. LISP, PROLOG, SMALLTALK), programming techniques (e.g. pattern matching, discrimination networks) and control structures (e.g. agendas, data dependencies).

**CMSC 422 Programming Robots (3)** Prerequisite: CMSC212 with a grade of C or better and permission of department; or CMSC graduate student. An examination of programming issues involved in creating autonomous robots, which can interact with their environments in "intelligent" ways. Topics include traditional robotics, behavior-based robotics, sensor processing, sensor-based control, programming robotic behaviors. Team programming project. Note: Not for credit in graduate program for computer science.

**CMSC 423 Bioinformatic Algorithms, Databases, and Tools (3)** Prerequisite: CMSC351 or permission of department. A practical introduction to the main topics in algorithms, databases, and tools used in bioinformatics. Includes public databases such as Genbank and PDG, software tools such as BLAST, and their underlying algorithms. Use of Perl scripting language to perform a number of useful tasks in analyzing sequence data and managing bioinformatic databases.

**CMSC 424 Database Design (3)** Prerequisite: CMSC420 with a grade of C or better; and permission of department; or CMSC graduate student. Motivation for the database approach as a mechanism for modeling the real world. Review of the three popular data models: relational, network, and hierarchical. Comparison of permissible structures, integrity constraints, storage strategies, and query facilities. Theory of database design logic.

**CMSC 426 Image Processing (3)** Prerequisite: CMSC 420 and permission of department; or CMSC graduate student. An introduction to basic techniques of analysis and manipulation of pictorial data by
CMSC 427 Computer Graphics (3) Prerequisites: MATH240; and a grade of C or better in CMSC420; and permission of department; or CMSC graduate student. An introduction to the principles of computer graphics. Includes an introduction to graphics displays and systems. Introduction to the mathematics of affine and projective transformations, perspective, curve and surface modeling, algorithms for hidden-surface removal, color models, methods for modeling illumination, shading, and reflection.

CMSC 430 Theory of Language Translation (3) Prerequisites: a grade of C or better in CMSC330; and permission of department; or CMSC graduate student. Formal translation of programming languages, program syntax and semantics. Finite state recognizers and regular grammars. Context-free parsing techniques such as recursive descent, precedence, LL(k) and LR(k). Code generation, improvement, syntax-directed translation schema.

CMSC 433 Programming Language Technologies and Paradigms (3) Prerequisite: CMSC330; and permission of department; or CMSC graduate student. Programming language technologies (e.g., object-oriented programming), their implementations and use in software design and implementation.

CMSC 434 Introduction to Human-Computer Interaction (3) Prerequisites: CMSC330 with a grade of C or better and PSYC100; and permission of department; or CMSC graduate student. Assess usability by quantitative and qualitative methods. Conduct task analyses, usability tests, expert reviews, and continuing assessments of working products by interviews, surveys, and logging. Apply design processes and guidelines to develop professional quality user interfaces. Build low-fidelity paper mockups, and a high-fidelity prototype using contemporary tools such as graphic editors and a graphical programming environment (eg: Visual Basic, Java).

CMSC 435 Software Engineering (3) Prerequisites: (CMSC412, CMSC417, CMSC420, CMSC430, or CMSC433) with a grade of C or better and permission of department; or CMSC graduate student. State-of-the-art techniques in software design and development. Laboratory experience in applying the techniques covered. Structured design, structured programming, top-down design and development, segmentation and modularization techniques, iterative enhancement, design and code inspection techniques, correctness, and chief-programmer teams. The development of a large software project.

CMSC 450 Logic for Computer Science (3) Prerequisites: (CMSC351 and MATH141) with grade of C or better and PSYC100; and permission of department; or CMSC graduate student. Also offered as MATH450. Credit will be granted for only one of the following: MATH445 or CMSC450/MATH450. Elementary development of propositional and first-order logic accessible to the advanced undergraduate computer science student, including the resolution method in propositional logic and Herbrand's Unsatisfiability Theorem in first-order logic. Included are the concepts of truth, interpretation, validity, provability, soundness, completeness, incompleteness, decidability and semi-decidability.

CMSC 451 Design and Analysis of Computer Algorithms (3) Prerequisite: a grade of C or better in CMSC351; and permission of department; or CMSC graduate student. Fundamental techniques for designing efficient computer algorithms, proving their correctness, and analyzing their complexity. General topics include sorting, selection, graph algorithms, and basic algorithm design paradigms (such as divide-and-conquer, dynamic programming and greedy algorithms), lower bounds and NP-completeness.

CMSC 452 Elementary Theory of Computation (3) Prerequisite: CMSC351 with a grade of C or better; and permission of department; or CMSC graduate student. Alternative theoretical models of computation, types of automata, and their relations to formal grammars and languages.

CMSC 456 Cryptology (3) Prerequisites: Any two 400-level MATH courses; or CMSC330 and CMSC351; and permission of department; or CMSC graduate student. Also offered as MATH456. Credit will be granted for only one of the following: CMSC456 or MATH456. Importance in protecting data in communications between computers. The subject lies on the border between mathematics and computer science. Mathematical topics include number theory and probability, and computer science topics include complexity theory.

CMSC 460 Computational Methods (3) Prerequisites: MATH240; and MATH241; and CMSC106 or CMSC114 or ENEE114; and permission of department; or CMSC graduate student. Also offered as AMSC460. Credit will be granted for only one of the following: AMSC/CMSC/MATH460 or AMSC/CMSC/MAPL466. Basic computational methods for interpolation, least squares, approximation, numerical quadrature, numerical solution of polynomial and transcendental equations, systems of linear equations and initial value problems for ordinary differential equations. Emphasis on methods and their computational properties rather than their analytic aspects. Intended primarily for students in the physical and engineering sciences.

CMSC 462 Computer Science for Scientific Computing (3) Prerequisite: CMSC106 or CMSC131; and (AMSC460 or CMSC460); or permission of department. This course cannot be used toward the upper-level math requirement for MATH and STAT majors. Students who take CMSC311 or CMSC330 will not be given credit for this course. Also offered as AMSC462. Credit will be granted for only one of the following: AMSC462 or CMSC462. A survey of computer science for scientists and engineers. The goal is to enable the student to write efficient, well-organized programs for today's machines. Topics to be treated include computer organization, computer arithmetic, processes and operating systems, the memory hierarchy, comparison of
the Fortran and C families of languages, compilers, the run time environment, memory allocation, preprocessors and portability, and documentation. Specific topics will vary from semester to semester.

**CMSC 466 Introduction to Numerical Analysis I (3)** Prerequisites: MATH240; and MATH241; and CMSC106 or CMSC114 or ENEE114; and permission of department; or CMSC graduate student. Also offered as AMSC466. Credit will be granted for only one of the following: AMSC/CMSC/MAPL460 or AMSC/CMSC/MAPL466. Floating point computations, direct methods for linear systems, interpolation, solution of nonlinear equations.

**CMSC 475 Combinatorics and Graph Theory (3)** Prerequisites: MATH240 and MATH241; and permission of department; or CMSC graduate student. Also offered as MATH475. General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

**CMSC 477 Optimization (3)** Prerequisites: (AMSC/CMSC/MAPL460, AMSC/CMSC/MAPL466, or AMSC/CMSC/MAPL467) with a grade of C or better and permission of department; or CMSC graduate students. Also offered as AMSC477. Credit will be granted for only one of the following: AMSC477, CMSC477 or MAPL477. Linear programming including the simplex algorithm and dual linear programs; convex sets and elements of convex programming; combinatorial optimization, integer programming.

**CMSC 498 Selected Topics in Computer Science (1-3)** Prerequisite: permission of department. An individualized course designed to allow a student or students to pursue a selected topic not taught as a part of the regular course offerings under the supervision of a Computer Science faculty member. In addition, courses dealing with topics of special interest and/or new emerging areas of computer science will be offered with this number. Selected topics courses will be structured very much like a regular course with homework, project and exams. Credit according to work completed

**CMSC 499 Independent Undergraduate Research (1-3)** Prerequisite: permission of department; restricted to Computer Science and Computer Engineering Majors. Students are provided with an opportunity to participate in a computer science research project under the guidance of a faculty advisor. Format varies. Students and supervising faculty member will agree to a research plan which must be approved by the department. As part of each research plan, students should produce a final paper delineating their contribution to the field.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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<tr>
<td>200-299</td>
<td>Primarily sophomore course</td>
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<td>300-399</td>
<td>Junior, senior course not acceptable for credit toward graduate degrees</td>
</tr>
<tr>
<td>386-387</td>
<td>Campus-wide internship courses; refer to information describing Experiential Learning</td>
</tr>
<tr>
<td>400-499</td>
<td>Junior, senior course acceptable for credit toward some graduate degree</td>
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<tr>
<td>500-599</td>
<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
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<td>600-899</td>
<td>Course restricted to graduate students</td>
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<tr>
<td>799</td>
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</table>

Use the search box below to view the approved courses.

Select Program: COMM - Communication

Course Number: Search

Courses in "COMM-Communication"

COMM - Communication

**COMM 100 Foundations of Oral Communication (3)** Not open to students who have completed COMM107. Credit will be granted for only one of the following: COMM100 or COMM107. Prerequisite for advanced communication courses. A study of oral communication principles, including verbal and nonverbal language, listening, group dynamics, and public speaking. Emphasis in this course is upon the application of these principles to contemporary problems and upon the preparation of different types of oral discourse.

**COMM 107 Oral Communication: Principles and Practices (3)** Not open to students who have completed COMM100. Credit will be granted for only one of the following: COMM100 or COMM107. A study of and practice in oral communication, including principles of interviewing, group discussion, listening, informative briefings, and persuasive speeches.
COMM 125 Introduction to Interpersonal Communication (3) Concepts of interpersonal communication including perception, language and meaning, nonverbal communication, listening and feedback.

COMM 170 Foundations of Listening (3) Role, process, and levels of listening behavior and the development of listening skills.

COMM 200 Critical Thinking and Speaking (3) Theory and practice of persuasive discourse analysis and composition. Research techniques, logical and rhetorical conceptions of argument, and technical principles for persuading in public venues.

COMM 220 Small Group Discussion (3) Principles, methods and types of interaction occurring in small groups with an emphasis on group discussion and decision-making.

COMM 230 Argumentation and Debate (3) A study of the fundamental principles of reasoning, analysis, and evidence preparation of debate briefs and presentation of standard academic debate.

COMM 231 News Writing and Reporting for Public Relations (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: Grammar competency demonstrated by a score of 52 or higher on the TWSE and permission of department. Limited to COMM majors. Credit will be granted for only one of the following: JOUR201, JOUR201P, JOUR231, or COMM231. Formerly JOUR 231. Introduction to writing and researching news and information media for public relations; laboratory in news-gathering tools and writing techniques for public relations.

COMM 232 News Editing for Public Relations (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: Grade of C or better in COMM231 or equivalent and permission of department. Limited to COMM majors. Credit will be granted for only one of the following: JOUR202, JOUR202P, JOUR232, or COMM232. Formerly JOUR 232. Copy editing, graphic principles and processes, news and information technologies for public relations.

COMM 250 Introduction to Communication Inquiry (3) An introduction to the field of communication. Definitions, models, and contexts of communication; rhetorical theory and rhetorical criticism of discourse.

COMM 288 Communication Internship (1-6) Prerequisite: permission of department. Repeatable to 6 credits if content differs. An individual experience arranged by the student and the instructor. Does not satisfy communication major requirements. 45 hours of supervised internship per credit hour with communication professional. Not a substitute for COMM386.

COMM 298 Selected Topics in Communication (3) Repeatable to 6 credits if content differs. Special topical study of contemporary issues in communication.

COMM 324 Communication and Gender (3) The creation of images of male and female, and masculine and feminine, through communication, the differences in male and female communication behaviors and styles, and the implications of those images and styles for male-female transactions.

COMM 330 Argumentation and Public Policy (3) Contemporary theories of argumentation with special emphasis on methods of formulating and critiquing public policy argument.

COMM 340 Communicating the Narrative (3) The role of narratives in communicating messages and development of strategies to effectively communicate the narrative form through storytelling, oral reading, and anecdotes.

COMM 350 Public Relations Theory (3) Prerequisite: Grade C or better in JOUR201, JOUR231, COMM231 or COMM250; or permission of department. For COMM majors only. Not open to students who have completed JOUR330. Credit will be granted for only one of the following: COMM350 or COMM430 or JOUR330 or JOUR530. Formerly JOUR 330. The historical development and contemporary status of public relations in business, government, associations and other organizations. Application of communication theory and social science methods to the research, planning, communication and evaluation aspects of the public relations process.

COMM 351 Public Relations Techniques (3) Prerequisite: A grade C or better in JOUR202, JOUR232 or COMM232; and COMM350. For COMM majors only. Not open to students who have completed JOUR331. Credit will be granted for only one of the following: COMM351 or JOUR331. Formerly JOUR 331. The techniques of public relations, including news releases, publications and printed materials, audio-visual techniques, speeches and special events. Application of these techniques in laboratory and field projects.

COMM 352 Specialized Writing in Public Relations (3) Prerequisite: A grade of C or better in COMM351. For COMM majors only. Not open to students who have completed JOUR332. Credit will be granted for only one of the following: COMM352 or JOUR332. Formerly JOUR 332. Public Relations writing for science, technology, health, medicine, corporate finance, educational policy, law and government in broadcast and technical media, as well as newspapers, magazines, proposals, speeches and correspondence.
COMM 354 Public Relations Programs (3) Prerequisite: COMM350. Not open to students who have completed JOUR334. Credit will be granted for only one of the following: COMM354 or JOUR334. Formerly JOUR 334. Analysis of eight major programs typically carried out by public relations professionals: employee relations, media relations, financial relations, member relations, governmental relations, community relations, fundraising and dealing with activist public.

COMM 360 The Rhetoric of Black America (3) An historical-critical survey of the rhetoric of Black Americans from the colonial period to the present.


COMM 383 Urban Communication (3) A study of communication variations in the urban setting with emphasis on communication problems encountered in ethnic relations. Strategies for improving communication.

COMM 386 Experiential Learning (3-6) 45 hours of supervised internship per credit hour Only 3 credits may be used to fulfill the requirements for the Communication major. Prerequisite: permission of department. Junior standing. For COMM majors only. Supervised internship experience with communication professionals. Relation of academic training to professional experience.

COMM 388 Communication Practicum (1-3) Prerequisite: permission of department. Repeatable to 3 credits if content differs. Supervised professional-level practice in communication.

COMM 398 Selected Topics in Communication (3) Repeatable to 6 credits if content differs. Topical study of contemporary issues in communication.

COMM 399 Honors Thesis (3) Nine hours of laboratory per week. Prerequisite: permission of department. For COMM majors only. Repeatable to 6 credits if content differs.

COMM 400 Research Methods in Communication (3) Prerequisite: COMM250 and an introductory course in statistics. For COMM majors only. Philosophy of scientific method; role of theory; research ethics; empirical research methods (measurement, sampling, design, analysis).

COMM 401 Interpreting Strategic Discourse (3) Prerequisite: COMM250. For COMM majors only. Principles and approaches for practical analysis of discourse designed to shape audience opinion.

COMM 402 Communication Theory and Process (3) Prerequisite: COMM250. For COMM majors only. Philosophical and conceptual analysis of communication theories.

COMM 420 Theories of Group Discussion (3) Current theory, research and techniques regarding small group process, group dynamics, leadership and decision-making.

COMM 421 Communicating Leadership (3) Not open to students who have completed COMM498L. Examines the nature of leadership, theories of leadership from a communication perspective, relationships between leadership, authority, power, and ethics. Explores leadership responsibilities, commitments, and actions.

COMM 422 Communication Management (3) Communication policies, plans, channels, and practices in the management of the communication function in organizations.

COMM 423 Communication Processes in Conferences (3) Group participation in conferences, methods of problem solving, semantic aspects of language, and the function of conferences in business, industry and government settings.

COMM 424 Communication in Complex Organizations (3) Structure and function of communication within organizations: organizational climate and culture, information flow, networks and role relationships.

COMM 425 Negotiation and Conflict Management (3) Role of communication in shaping negotiation and conflict processes and outcomes.

COMM 426 Conflict Management (3) Recommended: COMM425, COMM250, and COMM402. Role of communication in managing conflict processes.

COMM 430 Public Relations Theory and Techniques (3) Prerequisite: JOUR201 or equivalent; and permission of department. Not open to students who have completed COMM350. Credit will be granted for only one of the following: COMM350, COMM430, COMM630, JOUR530 and JOUR630. Formerly JOUR 530. Theories relevant to the strategic management of public relations and techniques used in programs to
communicate with publics of organizations

**COMM 435 Theories of Interpersonal Communication (3)** Prerequisite: COMM400 or permission of department. Major theoretical approaches and research trends in the study of interpersonal communication.

**COMM 450 Ancient and Medieval Rhetorical Theory (3)** Prerequisite: COMM250. For COMM majors only. Credit will be granted for only one of the following: COMM450, or COMM650. A survey of rhetorical theory in the ancient and medieval periods. Emphasis is placed on the theoretical problems that gave rise to its development within both periods. Authors include Isocrates, Plato, Aristotle, Cicero, Quintilian, Hermogenes, Martianus Capella, Aurelius Augustine, Alberic of Monte Cassino, Geoffrey of Vinsauf and Robert of Basevorn.

**COMM 451 Renaissance & Modern Rhetoric Theory (3)** A survey of rhetorical theory in the renaissance and modern periods. Emphasis is placed on the theoretical trends that dominate rhetorical thinking during both periods--especially in Great Britain. Authors include Wilson, Sherry, Rainolde, Day, Hyperius, Cox, Ramus, Talon, Bacon, Pascal, Fenelon, Sheridan, Campbell, Blair, and Whately.

**COMM 453 The Power of Discourse in American Life (3)** The potential of language forms and strategic discourse to create, perpetuate, and alter patterns of political and cultural behavior. The influence of contemporary political and cultural discourse on public understanding, public policy, and day-to-day life.

**COMM 454 Rhetoric of the 1960s (3)** Prerequisite: COMM401 or permission of department. Not open to students who have completed COMM453 (Spring 2003). Study of key rhetoric of the 1960s. Treats rhetoric of relevant Presidents and several protest movements including civil rights, anti-war, and women's liberation. Contrasts traditional modes of argument with alternative rhetorical forms.

**COMM 455 Speechwriting (3)** The study of message strategies in order to research and develop effective speech texts appropriate to speakers and their audiences in various public contexts.

**COMM 458 Seminar in Political Communication (3)** Prerequisite: COMM250. Repeatable to 6 credits if content differs. The examination of special topics for and theories of political communication.

**COMM 460 Public Life in American Communities, 1634-1900 (3)** Ways that Americans have used their voice to create public life. Focus is on the diverse social communities that have characterized American life and the place and characteristics of oral discourse in each.

**COMM 461 Voices of Public Leadership in the Twentieth Century (3)** Study of the use of speaking in the power struggles of the twentieth century. Focus is on important speakers of the century, their social and policy influence, and the struggle to expand the diversity of voices with power in the public sphere.

**COMM 468 Seminar in Mediated Communication (3)** Prerequisites: COMM/JOUR350 or COMM402 or COMM450. Junior standing. Repeatable to 6 credits if content differs. The examination of special topics related to the study of mediated communication.

**COMM 469 The Discourse of Social Movements (3)** Recommended: COMM401. Junior standing. Repeatable to 6 credits if content differs. Study of key social movements that have influenced American social and political life. In alternate years the Civil Rights Movement and the Rhetoric of Women's Suffrage and Abolitionism. Consideration of how groups excluded from or marginalized in American political life affect social change.

**COMM 470 Listening (3)** The principles of listening behavior.

**COMM 471 Public Communication Campaigns (3)** Prerequisite: COMM200 or permission of department. Diffusion theory and its implications for public communication campaigns.

**COMM 472 Nonverbal Communication (3)** Nonverbal communication in human interaction theory and research on proxemics, kinesics and paralanguage as expression of relationship, affect and orientation within and across cultures.

**COMM 475 Persuasion (3)** Bases of persuasion, with emphasis on recent experimental developments in persuasion.

**COMM 476 Language, Communication, and Action (3)** The nature of communication as symbolic action. Topics include language, meaning, intention, understanding, and consequences of communication.

**COMM 477 Discourse Analysis (3)** Concepts of textual and discourse analysis applied to speech situations.

**COMM 478 Communication Colloquium (1)** Repeatable to 4 credits if content differs. Current trends and issues in the field of communication, stressing recent research methods. Recommended for senior and
graduate student majors and minors in communication.

**COMM 482 Intercultural Communication (3)** The major variables of communication in an intercultural context: cultural, racial and national differences; stereotypes; values; cultural assumptions; and verbal and nonverbal channels.

**COMM 483 Senior Seminar in Public Relations (3)** Prerequisite: COMM351 and COMM400. Not open to students who have completed JOUR483. Credit will be granted for only one of the following: COMM483 or JOUR483. Formerly JOUR 483. Integration of theory, techniques and research methods into the planning and execution of public relations campaigns for specific organizations. Analysis of research on the case studies of public relations.

**COMM 488 Communication Portfolio Project (1)** Senior standing. For COMM majors only. Repeatable to 3 credits if content differs. Preparation of the professional communication portfolio.

**COMM 489 Topical Research (1-3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs. Individualized research projects conducted with a faculty sponsor.

**COMM 498 Seminar (3)** Prerequisite: permission of instructor. Senior standing. Present-day communication research.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: CPSP - College Park Scholars Program

Search

Courses in "CPSP-College Park Scholars Program"

CPSP - College Park Scholars Program

**CPSP 118 College Park Scholars Colloquium I (1-3)** Prerequisite: admission to College Park Scholars Program. Introductory colloquium for specific College Park Scholars Program.

**CPSP 126 Issues in Public Leadership (3)** Prerequisite: admission to College Park Scholars Public Leadership Program. Development of effective leaders and change agents through analysis and application of leadership theories and definitions, personal leadership, tasks and processes of leadership, leader/follower interactions, group dynamics, and transformation of communities.

**CPSP 218 College Park Scholars Colloquium II (1-3)** Prerequisite: admission to College Park Scholars
Program. Colloquium for specific College Park Scholars Program.


**CPSP 229 Supervised Online Communication Practicum (1-3)** Prerequisite: admission to College Park Scholars Program. Repeatable to 6 credits. Introduction to concepts and skills of web publishing through simulation of e-business environment. As teams, students form start-up web design companies and create websites for clients from non-profit organizations. Fulfills the experiential learning course requirement for College Park Scholars Citation.

**CPSP 239 Individual Practicum (1-3)** Prerequisite: admissions to College Park Scholars Program. Repeatable to 6 credits. Independent study or internship in interest area supervised by faculty member. Must be approved by program faculty director. Fulfills the experiential learning course requirement for College Park Scholars Citation.

**CPSP 249 Service-Learning (1-3)** Prerequisite: admissions to College Park Scholars Program. Repeatable to 6 credits. Use of community service projects as the context for building knowledge and skills. Structured class meetings for critical analysis and reflection on topics such as citizenship, community, leadership, and discipline-specific issues. Fulfills the experiential learning course requirement for the College Park Scholars Citation.

**CPSP 259 Discovery Projects Research (1-3)** Prerequisite: admissions to College Park Scholars Program. Repeatable to 6 credits if content differs. Through independent research with faculty and subject matter experts, sophomores design and implement research study using specific methodologies on topic of interest. Findings presented at annual campus showcase. Fulfills the experiential learning course requirement for the College Park Scholars Citation.

**CPSP 288 Special Topics in College Park Scholars (1-3)** Prerequisite: admission to College Park Scholars Program. Repeatable to 6 credits if content differs. Topics of special interest to College Park Scholars, such as case studies, book groups on science and technology, facilitating dialogue, and other timely issues.

**CPSP 318 College Park Scholars Colloquium III (1-3)** Prerequisite: admission to College Park Scholars Program. Colloquium for specific College Park Scholars Program.

**CPSP 339 Advanced Practicum (1-3)** Prerequisite: admissions to College Park Scholars Program and permission of instructor. Repeatable to 6 credits. Independent study designed for students who wish to extend in greater depth and detail projects begun in sophomore year. Subject varies. Overseen by faculty director or mentor.

**CPSP 369 Guided College Park Scholars Teaching (1-3)** Prerequisites: admission to College Park Scholars Program and permission of instructor. Repeatable to 6 credits. For CPSP colloquia section leaders. Guided teaching experience for selected students in College Park Scholars Program.

**CPSP 379 College Park Scholars Travel Study (3)** Restricted to College Park Scholars students or by permission. Repeatable to 6 credits if content differs. College Park Scholars travel studies course focused on a multidisciplinary theme.

**CPSP 386 Experiential Learning (3-6)**

**CPSP 388 Advanced Special Topics in College Park Scholars (1-3)** Prerequisite: admissions to College Park Scholars Program. Repeatable to 6 credits if content differs. Interdisciplinary topics of special interest to College Park Scholars, such as legacies of the cold war, environmental ethics, women in leadership, and other timely issues. Projects build on previous work in College Park Scholars.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: DANC - Dance

Course Number: Search

Courses in "DANC-Dance"

DANC - Dance

**DANC 102 Rhythmic Training for Dance (2)** One hour of lecture and two hours of laboratory per week. Prerequisite: Restricted to DANC majors. All other majors will require permission. Basic approaches to rhythmic principles related to dance.

**DANC 109 Improvisation I (2)** One hour of lecture and two hours of laboratory per week. Prerequisite: Restricted to DANC majors. All other majors will require permission. Repeatable to 4 credits. An introduction to the process of spontaneous movement discovery involving solo and group movement experiences.

**DANC 118 Beginning Tap (2)** One hour of lecture and two hours of laboratory per week. Repeatable to 4
credits. Introduction to tap for the beginning student.

**DANC 119 Introduction to American Social Dance (2)** One hour of lecture and two hours of laboratory per week. Repeatable to 4 credits. Social dance forms of North America.

**DANC 128 Fundamentals of Ballet (2)** One hour of lecture and two hours of laboratory per week. For non-majors only. Repeatable to 4 credits. Introduction to ballet technique and terminology for the beginning student.

**DANC 138 Introduction to Ethnic Dance (2)** Repeatable to 4 credits with permission of department. Traditional dances and music of selected cultures.

**DANC 148 Fundamentals of Modern Dance (2)** One hour of lecture and two hours of laboratory per week. For non-majors only. Repeatable to 4 credits. Introduction to modern dance with emphasis on the development of fundamental movement skills.

**DANC 149 Fundamentals of Modern Dance II (2)** Two hours of laboratory and one hour of discussion/recitation per week. Prerequisite: DANC148. Repeatable to 4 credits. Continuation of the development of axial and locomotor movement skills with emphasis on the development of functional alignment, musicality, range of movement, coordination, and movement memory.

**DANC 158 Fundamentals of Jazz (2)** One hour of lecture and two hours of laboratory per week. For non-majors only. Repeatable to 4 credits. Introduction to the jazz style in dance for the beginning student.

**DANC 171 Movement Integration (2)** One hour of lecture and two hours of laboratory per week. Techniques for reducing tension and achieving integrated muscular control and coordination.

**DANC 199 Practicum in Choreography, Production and Performance I (1-3)** Prerequisite: permission of department. Repeatable to 6 credits. Choreography, production, and performance of student works, both on and off campus.

**DANC 200 Introduction to Dance (3)** A study of dance as a form of communication and as an art form; a survey of the theories and styles of dance, and their relationships to other art forms.

**DANC 208 Choreography I (3)** Prerequisites: DANC102 and DANC109. Repeatable to 6 credits. Basic principles of dance composition: space, time, dynamics, and movement invention. The development of critical awareness.

**DANC 210 Dance Production (3)** A survey of theatre crafts and techniques involved in dance production, including lighting, sound, set and costume design and construction, stage-management and videotaping.

**DANC 228 Ballet I (2)** One hour of lecture and two hours of laboratory per week. Prerequisite: permission of department. Repeatable to 4 credits. Barre and center work for alignment, strength, flexibility and coordination. Introduction to ballet terminology.

**DANC 229 Ballet II (2)** One hour of lecture and two hours of laboratory per week. Prerequisite: permission of department. Repeatable to 4 credits. Continuation of DANC228.

**DANC 248 Modern Dance I (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: Dance major standing or permission of department. Repeatable to 6 credits. Body alignment, rhythm, dynamics, space and dance phrases.

**DANC 249 Modern Dance II (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: DANC248 and permission of department. Repeatable to 6 credits. Continuation of DANC248.

**DANC 258 Jazz I (2)** One hour of lecture and two hours of laboratory per week. Prerequisite: DANC158 or dance major standing. Repeatable to 4 credits. Jazz warm-ups and combinations emphasizing rhythm and movement isolations.

**DANC 259 Jazz II (2)** One hour of lecture and two hours of laboratory per week. Prerequisite: DANC258. Repeatable to 4 credits. Continuation of the principles of Jazz I. Emphasis on style and execution of movement.

**DANC 299 Practicum in Choreography, Production and Performance II (1-3)** Prerequisite: DANC199 or permission of department. Repeatable to 6 credits. Continuation of DANC199.

**DANC 302 Music Sources for Dance (3)** Prerequisite: DANC102 or permission of department. Study of
musical literature, improvisation and composition as they relate to dance. Techniques of instrumental accompaniment.

DANC 305 Principles of Teaching Dance (3) Prerequisites: DANC102, DANC208, and DANC248. Theory and practice of dance instruction including methods, lesson plans and practice teaching.

DANC 306 Creative Dance for Children (3) Prerequisite: DANC305 or equivalent. Communication of the essential elements of dance to children. The development of movement into simple forms to serve as a symbol of creative individual expression.

DANC 308 Choreography II (3) Prerequisite: DANC208. Repeatable to 6 credits. Exploration of the formal elements of choreography; theme, development, repetition, contrast, transition, continuity and structure.

DANC 309 Improvisation II (2) Prerequisite: DANC109 or audition. Repeatable to 4 credits. Continuation of DANC109.

DANC 310 Dance Lighting (3) Prerequisite: DANC210. Two lectures and two laboratory periods per week. Theory and practice of stage lighting with specific reference to designing for dance.

DANC 328 Ballet III (2) One hour of lecture and two hours of laboratory per week. Prerequisite: permission of department. Repeatable to 4 credits. Execution of the vocabulary of ballet movement with technical accuracy.

DANC 329 Ballet IV (2) One hour of lecture and two hours of laboratory per week. Prerequisite: permission of department. Repeatable to 4 credits. Continuation of DANC328.

DANC 348 Modern Dance III (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: DANC249 and permission of department. Repeatable to 6 credits. The body as an instrument of expression; techniques for increasing kinesthetic sensitivity.

DANC 349 Modern Dance IV (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: DANC348 and permission of department. Repeatable to 6 credits. Continuation of DANC348.

DANC 365 Labanotation (3) Prerequisites: DANC102 and DANC248. Formerly DANC 266. Introduction to Rudolf Laban’s system of structural movement analysis.

DANC 367 Dance in World Cultures (3) An examination of non-Western dance forms, including classical, ceremonial, and folk-traditional in their historical and societal contexts.

DANC 370 Kinesiology for Dancers (4) For DANC majors only. A study of the biological and physical principles of movement and the effects of dancing upon the structure and function of the human body.

DANC 379 Practicum in Dance (1-3) Repeatable to 12 credits. Performing experience for the student dancer who has developed a professional level of competence.

DANC 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

DANC 388 Choreography III (3) Prerequisite: DANC308 or equivalent. Repeatable to 6 credits. Theoretical and creative aspects of choreography for small groups. Emphasis on individual projects.

DANC 398 Directed Studies in Dance (1-6) Prerequisite: permission of department. Repeatable to 6 credits.

DANC 399 Practicum in Choreography, Production and Performance III (1-3) Prerequisite: DANC299 or permission of department. Repeatable to 6 credits. Continuation of DANC299.

DANC 410 Technical Theater Production for Dance (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: DANC210 or equivalent (or permission of department). A study of the theoretical principles of production and the practical application of those principles to the presentation of dance works.

DANC 428 Advanced Ballet Technique I (1) Two hours of laboratory per week. Prerequisite: permission of department. Repeatable to 3 credits. Advanced ballet technique with emphasis on physical and expressive skills.

DANC 429 Advanced Ballet Technique II (1) Two hours of laboratory per week. Prerequisite: permission of department. Repeatable to 3 credits. Intensive work in ballet technique for the professionally-oriented dancer.
DANC 448 Modern Dance V (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: DANC349 and audition. Repeatable to 6 credits. Complex phrases of modern dance movement with emphasis on articulation and expression.

DANC 449 Modern Dance VI (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: DANC448 and permission of department. Repeatable to 6 credits. Continuation of DANC448.

DANC 466 Laban Movement Analysis (3) For DANC majors only. Introduction to Rudolf Laban's system of qualitative movement analysis in relation to understanding personal movement style. Application to dance performance, teaching, composition and research.

DANC 468 Modern Repertory (3) Prerequisite: DANC349 or permission of department. Repeatable to 6 credits if content differs. Form, content, music, design and performance of modern dance works.

DANC 479 Advanced Practicum in Dance (1-3) Repeatable to 6 credits. Advanced level performing experience for the student dancer who has developed an advanced professional level of competence.

DANC 482 History of Dance I (3) Prerequisite: DANC200. The development of dance from primitive times to the Middle Ages and the relationship of dance forms to patterns of culture.

DANC 483 History of Dance II (3) Prerequisite: DANC200. The development of dance from the Renaissance period to the present time and the relationship of dance forms to patterns of culture.

DANC 485 Seminar in Dance (3) Prerequisite: DANC483. Senior standing. For DANC majors only. Formerly DANC 484. Individual research leading to a presentation with written documentation of the process, serving as a culmination of undergraduate study for dance majors.

DANC 489 Special Topics in Dance (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Theoretical, choreographic, pedagogic, or performance study.

DANC 499 Practicum in Choreography, Production and Performance IV (1-6) Prerequisite: permission of department. Repeatable to 6 credits. Advanced workshop in dance presentation, including performing, production and planned field experiences.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: EALL - East Asian Languages and Literatures

Course Number: Search

Courses in "EALL-East Asian Languages and Literatures"

EALL - East Asian Languages and Literatures

EALL 300 The Languages of East Asia (3) A survey of Chinese, Japanese, and Korean, and the languages of other East Asian nationalities. Provides a basic understanding of the structures of these languages. Topics covered include the characterizing features; the relationships of the languages to each other; the geographical, social, and historical settings. No knowledge of Asian languages is required. The course is taught in English.

EALL 310 Asian Culture and the Sinosphere (3) Cultural, literary, linguistic, social and historical influence of China in East and Southeast Asia.
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Use the search box below to view the approved courses.

Select Program: ECON - Economics
Course Number: Search

Courses in "ECON-Economics"

ECON - Economics

ECON 200 Principles of Micro-Economics (4) Prerequisite: MATH110 or placement in MATH115 or above. It is recommended that students complete ECON200 before taking ECON201. This course emphasizes the behavior of individual consumers and business firms, problems of international trade and finance, the distribution of income, policies for eliminating poverty and discrimination, the problems of environmental pollution, and the impact of different market structures upon economic activity.

ECON 201 Principles of Macro-Economics (4) Prerequisite: MATH110 or placement in MATH115 or above. It is recommended that students complete ECON200 before taking ECON201. Credit will be granted for only one of the following: ECON201 or ECON205. An introduction to the problems of unemployment, inflation, and economic growth. Emphasis on roles of monetary and fiscal policy in the conduct of macroeconomic policy.
The efficacy of wage and price controls is analyzed.

**ECON 305 Intermediate Macroeconomic Theory and Policy (3)** Prerequisites: ECON200; and ECON201; and MATH220. Analysis of the determination of national income, employment, and price levels. Discussion of consumption, investment, inflation, and government fiscal and monetary policy.

**ECON 306 Intermediate Microeconomic Theory (3)** Prerequisites: ECON200; and ECON201; and MATH220. Analysis of the theories of consumer behavior and of the firm, market systems, distribution theory and the role of externalities.

**ECON 310 European Economic History (3)** Prerequisite: ECON200 and ECON201. The evolution of the capitalist system from its medieval origins to the present. Emphasis on dynamic forces of cumulative change in capitalism, including capital accumulation, technology, expansion of markets, the corporate form of private property in the means of production, and the relation of capitalism to war and revolution.

**ECON 311 American Economic History Before the Civil War (3)** Prerequisites: ECON200 and ECON201. Topics include: the British settlement of the North American colonies, economic development in the colonial period, the economics of the American Revolution, the writing of the Constitution, the development of financial markets in the early 19th century, public lands and the spread of western agriculture, slavery, banking, and early industrialization.

**ECON 312 American Economics After the Civil War (3)** Prerequisites: ECON200 and ECON201. Topics include: the economics of the Civil War, the performance of southern agriculture in the late 19th century, the rise of large corporations, industrialization, the development of financial markets, the creation of the Federal Reserve Board, the economics of the Great Depression and the New Deal, the economic impact of World War II, and the rise of the modern service economy in the late 20th century.

**ECON 314 Economic History, Development and Policy (3)** Prerequisite: ECON200, ECON201 and permission of department. For ECON majors only. Study abroad in the economic history, institutional development, and recent economic policy problems of selected areas.

**ECON 315 Economic Development of Underdeveloped Areas (3)** Prerequisites: (ECON200 and ECON201) or ECON205. Credit will be granted for only one of the following: ECON315 or ECON416. Analysis of the economic and social characteristics of underdeveloped areas. Recent theories of economic development, obstacles to development, policies and planning for development.

**ECON 321 Economic Statistics (3)** Prerequisite: ECON200, ECON201, MATH220 or MATH140 or permission of department. For ECON majors only. Not open to students who have completed BMGT230 or BMGT231. Introduction to the use of statistics in economics. Topics include: Probability, random variables and their distributions, sampling theory, estimation, hypothesis testing, analysis of variance, regression analysis and correlation.

**ECON 330 Money and Banking (3)** Prerequisite: ECON200 and ECON201. The structure of financial institutions and their role in the provision of money and near money. Analysis of the Federal Reserve System, the techniques of central banks, and the control of supply of financial assets in stabilization policy. Relationship of money and credit to economic activity and the price level.

**ECON 340 International Economics (3)** Prerequisite: ECON200 and ECON201. Credit will be granted for only one of the following: ECON340 or ECON441. A description of international trade and the analysis of international transactions, exchange rates, and balance of payments. Analysis of policies of protection, devaluation, and exchange rate stabilization and their consequences.

**ECON 350 Introduction to Public Sector Economics (3)** Prerequisite: (ECON200 and ECON201) or ECON205. Credit will be granted for only one of the following: ECON350 or ECON454. The role of federal, state, and local governments in meeting public wants. Analysis of theories of taxation, public expenditures, government budgeting, benefit-cost analysis and income redistribution, and their policy applications.

**ECON 370 Labor Markets, Human Resources, and Trade Unions (3)** Prerequisites: (ECON200 and ECON201) or ECON205. Credit will be granted for only one of the following: ECON370 or ECON470. A survey of labor markets and the American labor movement. Analysis of labor force growth and composition, problems of unemployment and labor market operations, theories of wage determination, the wage-price spiral, collective bargaining, and governmental regulation of employment and labor relations.

**ECON 375 Economics of Poverty and Discrimination (3)** Prerequisites: (ECON200 and ECON201) or ECON205. The causes of the persistence of low income groups; the relationship of poverty to technological change, to economic growth, and to education and training; economic results of discrimination; proposed remedies for poverty and discrimination.

**ECON 386 Experiential Learning (3-6)** Prerequisite: ECON200, ECON201, GPA > 2.75. Junior standing. For ECON majors only.
ECON 387 Major Transitions: From Undergraduate to Professional (1) Junior standing. For ECON majors only. Credit will be granted for only one of the following: BSOS388C or ECON387. Formerly BSOS 388C. Course involves a focus on students' interests and professional opportunities in their field; integration of major program of study and career concerns; issues of transition into graduate school and employment; includes experiential/explorational activities.

ECON 391 Survey of Urban Economics Problems and Policies (3) An introduction to the study of urban economics through the examination of current policy issues. Topics may include suburbanization of jobs and residences, housing and urban renewal, urban transportation, development of new towns, ghetto economic development, problems in services such as education and police.

ECON 396 Independent Honors Study (3) Prerequisite: permission of department. Recommended: ECON422. Normally taken in senior year. Course will explore selected topics in economic theory and its application in depth. Analysis of methodologies in economic research and the development of student skills in research methods. Students will prepare workshop papers.

ECON 397 Honors Thesis (3) Prerequisites: ECON396 and candidacy for honors in economics. General supervision will be provided through assembled meetings with the professor in charge of the course.

ECON 398 Topics in Economics (3) Prerequisite: ECON200, ECON201, and permission of department. Repeatable to 6 credits if content differs. This course is designed to meet the changing interests of students and staff. Topics vary in response to those interests. Students are advised to seek information about the coverage and prerequisites during the registration period.

ECON 399 Individual Reading and Research For Undergraduates (1-3) Prerequisite: ECON200, ECON201, and permission of department. Repeatable to 6 credits if content differs. By arrangement with individual faculty members. This course is designed for students desiring specialized instruction and guidance in subjects not covered in the course offerings. Before enrollment, the students must secure agreement from an individual faculty member to act as their supervisor. A program of reading, research and evaluation will be worked out between the student and the faculty member.

ECON 401 Current Issues in American Economic Policy (3) Prerequisite: ECON306; or permission of department. For ECON majors only. Analysis of current economic problems and public policies. Inflation, unemployment, market power, government regulation, poverty and distribution of income, federal budget and tax policy, environment.

ECON 402 Macroeconomic Models and Forecasting (3) Prerequisite: ECON305. Analysis of the fluctuations in economic activity and the formulation and use of forecasting models of the economy. Illustrations of computer macro models and forecasting problems.

ECON 407 Advanced Macroeconomics (3) Prerequisite: ECON305; or permission of department. For ECON majors only. An in-depth analysis of current issues in macroeconomic theory and policy. Topics covered include: 1. alternative perspectives on macroeconomics including monetarism, new classical equilibrium models, rational expectations, and real business cycle models; 2. long term growth, the slowdown in productivity growth, and concerns about U.S. competitiveness; 3. the effectiveness of macroeconomic policy in an open economy; 4. the effects of finance on the real sector.

ECON 413 Information and Markets (3) Prerequisite: ECON306. Presents advanced microeconomic theory, concentrating on how information affects exchange and market outcomes, including insurance, signaling, reputations, and incentive contracts. Studies applications to various markets and policy questions.

ECON 414 Game Theory (3) Prerequisites: ECON306; or permission of department. For ECON majors only. Studies the competitive and cooperative behavior that results when several parties with conflicting interests must work together. Learn how to use game theory to analyze situations of potential conflict. Applications are drawn from economics, business, and political science.

ECON 415 Strategic Behavior and Incentives (3) Prerequisite: ECON414 or permission of department. Most decisions are not made in isolation, but involve interaction with others. Applies the foundations of game theory learned in ECON414 to several important topics in business and economics. Emphasis is on topics of practical importance: negotiation, markets with few participants, pricing and incentives.

ECON 416 Theory of Economic Development (3) Prerequisite: ECON305. For ECON majors only. Credit will be granted for only one of the following: ECON315 or ECON416. Economic theory of the developing nations; role of innovation, capital formation, resources, institutions, trade and exchange rates, and governmental policies.

ECON 418 Economic Development of Selected Areas (3) Prerequisite: ECON306 and (ECON315 or ECON416). Repeatable to 6 credits if content differs. Institutional characteristics of a specific area are discussed and alternate strategies and policies for development are analyzed.

ECON 422 Quantitative Methods in Economics I (3) Prerequisites: ECON200, ECON201, and ECON321;
ECON 423 Quantitative Methods in Economics II (3) Prerequisite: ECON422. Interaction between economic problems and specification and estimation of econometric models. Topics include issues of autocorrelation, heteroscedasticity, functional form, simultaneous equation models, and qualitative choice models.

ECON 424 Computer Methods in Economics (3) Prerequisites: ECON305, ECON306, and ECON321. For ECON majors only. Database development from Internet and other sources, research methods, and statistical analysis in economics using EXCEL and SAS.

ECON 425 Mathematical Economics (3) Prerequisites: ECON305 and ECON306, and MATH220 or equivalent. Mathematical developments of theory of household and firm, general equilibrium and welfare economics, market imperfections, and role of information.

ECON 435 Financial Markets and the Macroeconomy (3) Prerequisite: ECON306. Not open to finance majors. For ECON majors only. Credit will be granted for only one of the following: BMGT343 or ECON435. Formerly ECON 398F. The different types of financial assets that exist, the markets that they trade in, and the determination of their prices and rates of return are examined. Specific topics that will be covered include the Markowitz portfolio selection model, the capital asset pricing model, the arbitrage pricing theory, the efficient markets hypothesis, the term structure of interest rates, and options. There will be almost no emphasis on issues in corporate finance.

ECON 441 Theory of International Economics (3) Prerequisite: ECON305 and ECON306; or permission of department. For ECON majors only. Credit will be granted for only one of the following: ECON340, ECON440 or ECON441. Theoretical treatment of international trade and international finance. Includes Ricardian and Heckscher-Ohlin theories of comparative advantage, analysis of tariffs and other trade barriers, international factor mobility, balance of payments adjustments, exchange rate determination, and fiscal and monetary policy in an open economy.

ECON 442 Globalization and Capital Markets (3) Prerequisite: ECON305 and ECON306. For ECON majors only. Credit will be granted for only one of the following: ECON398M or ECON442. Formerly ECON 398M. Includes principals of open-economy macroeconomics used to explain the causes and consequences of international capital flows. Analysis is made of private consumption, investment, the government sector, current accounts, the labor market, and the money and foreign exchange markets in small open economies. This framework is then used to study examples of how speculative attacks on currencies, sudden reversals of capital inflows, and the effects of the lack of credibility of economic policy affect economic development.

ECON 451 Public Choice (3) Prerequisite: ECON306. Analysis of collective decision making, economic models of government, program budgeting, and policy implementation; emphasis on models of public choice and institutions which affect decision making.

ECON 454 Theory of Public Finance and Fiscal Federalism (3) Prerequisite: ECON306; or permission of department. For ECON majors only. Credit will be granted for only one of the following: ECON350 or ECON454. Study of welfare economics and the theory of public goods, taxation, public expenditures, benefit-cost analysis, and state and local finance. Applications of theory to current policy issues.

ECON 456 Law and Economics (3) Prerequisite: ECON306. Relationship of the exchange process to the system of institutions and rules that society develops to carry out economic transactions. Topics covered include: Property rights; torts, negligence, and liability; contracts and exchanges; criminal control and enforcement; equity issues in the rule and market environment.

ECON 457 Economics of the Gambling Industry (3) Prerequisite: ECON306, ECON321, and MATH140 (or higher). For ECON majors only. Analysis of basic economic issues related to the gambling industry. Topics will include: (i) structure and profitability of the gambling industry; (ii) public policy issues (distribution of the tax burden, addiction, government operation of lotteries); (iii) probabilistic and microeconomic elements of various games in play (lotteries, blackjack, keno, poker, sports gambling, etc) and related issues in strategic behavior; (iv) microeconomic similarities and distinctions between risky investment and gambling.

ECON 460 Industrial Organization (3) Prerequisite: ECON306; or permission of department. For ECON majors only. Changing structure of the American economy; price policies in different industrial classifications of monopoly and competition in relation to problems of public policy.

ECON 461 Economics of Regulation and Anti-trust (3) Prerequisite: ECON306. For ECON majors only. Credit will be granted for only one of the following: ECON398R or ECON461. Formerly ECON 398R. Considers government intervention in economic activity of three types: antitrust policy, regulation of natural monopolies, and health safety regulation. Covers theoretical models, real-world policy applications, and empirical studies relevant to the impact of regulation.
ECON 465 Health Care Economics (3) Prerequisite: ECON306. Analysis of health care, the organization of its delivery and financing. Access to care; the role of insurance; regulation of hospitals, physicians, and the drug industry; role of technology; and limits on health care spending.

ECON 470 Theory of Labor Economics (3) Prerequisite: ECON306; or permission of department. For ECON majors only. Credit will be granted for only one of the following: ECON370 or ECON470. An analytical treatment of theories of labor markets. Marginal productivity theory of labor demand; allocation of time in household labor supply models; theory of human capital; earnings differentials; market structure and the efficiency of labor markets; the role of trade unions; discrimination; and unemployment.

ECON 480 Seminar in the New Economy (3) Prerequisites: ECON305, ECON306, and permission of department. For ECON majors only. Credit will be granted for only one of the following: ECON398J or ECON480. Formerly ECON 398J. Six research topics will be examined each semester. The course will be divided into six modules, each focusing on the research of an Economic Department faculty member. Topics vary depending on the faculty members in the course in any given year. Students will be expected to prepare a short research paper for each module.

ECON 481 Theory and Policy in Environmental Economics (3) Prerequisite: ECON306. For ECON and ENSP majors only. Credit will be granted for only one of the following: ECON381 or ECON481. Formerly ECON 381. Application of economic theory and empirical tools to the analysis of environmental issues. The concepts of externalities, public goods, property rights and cost-benefit analysis are applied to air pollution, water pollution, solid waste management, hazardous waste, and global warning. The optimal role and various tools of public policy are addressed.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

<table>
<thead>
<tr>
<th>Number</th>
<th>Eligibility</th>
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<td>000-099</td>
<td>Non-credit course</td>
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<td>100-199</td>
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<tr>
<td>200-299</td>
<td>Primarily sophomore course</td>
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<tr>
<td>300-399</td>
<td>Junior, senior course not acceptable for credit toward graduate degrees</td>
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<tr>
<td>386-387</td>
<td>Campus-wide internship courses; refer to information describing Experiential Learning</td>
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<tr>
<td>400-499</td>
<td>Junior, senior course acceptable for credit toward some graduate degree</td>
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<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
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<td>Course restricted to graduate students</td>
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<td>Master Thesis credit</td>
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<tr>
<td>899</td>
<td>Doctoral Dissertation credit</td>
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</table>

Use the search box below to view the approved courses.

Select Program: EDCI - Curriculum and Instruction

Course Number:  

Search

Courses in "EDCI-Curriculum and Instruction"

EDCI - Curriculum and Instruction

EDCI 280 Introduction to Teaching (3) Development of conceptual understanding of the teaching-learning process. Seminar to coordinate on-and off-campus experiences.

EDCI 288 Special Topics in Teacher Education (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs.

EDCI 298 Special Problems in Teacher Education (1-6) Prerequisite: permission of department. Repeatable to 6 credits if content differs.
EDCI 300 Disciplined-Based Art Education Methods I (3) Three hours of lecture and three hours of laboratory per week. Prerequisites: admission to teacher education program; 2.5 GPA; permission of department. For art education majors only. EDCI300 is designed to provide prospective art teachers with a knowledge base of the theories and best practices which are relevant to effective pedagogy as well as current art education goals and standards. This course focuses on understanding and using research-based teaching techniques and strategies in planning, teaching and evaluating instruction in the K-12 classroom. Emphasis is placed on principles of effective instruction, classroom management, multiculturalism, thinking/questioning/problem solving skills and adaptation/modification of instruction for diverse student populations. Students will be encouraged to explore their understandings and beliefs about teaching (pedagogy) and learning.

EDCI 301 Teaching Art in the Elementary School (3) For elementary and pre-elementary education majors only. Not open to art education majors. Art methods and materials for elementary schools. Includes laboratory experiences with materials appropriate for elementary schools. Emphasis on emerging areas of art education for the elementary classroom teacher.

EDCI 320 Curriculum and Instruction in Secondary Education: Social Studies/ (3) History Prerequisites: admission to teacher education program; 2.5 GPA; permission of department. For education majors only. Objectives, selection and organization of subject matter, appropriate methods, lesson plans, textbooks and other instructional materials, measurement and topics pertinent to social studies education. Includes emphasis on multi-cultural education.

EDCI 321 Curriculum and Instruction in Secondary Education: Social Studies/ (3) Geography Prerequisites: admission to teacher education program; 2.5 GPA; permission of department. For education majors only. Objectives, selection and organization of subject matter, appropriate methods, lesson plans, textbooks and other instructional materials, measurement, and topics pertinent to geography education.

EDCI 322 Curriculum and Instruction in Elementary Education: Social Studies (3) Prerequisites: admission to teacher education program; 2.5 GPA; EDCI397; and permission of department. Corequisites: EDCI342; EDCI352; EDCI362; and EDCI372. For elementary education majors only. Curriculum, organization and methods of teaching, evaluation of materials, and utilization of environmental resources. Emphasis on multicultural education. Includes laboratory/field experiences.

EDCI 330 Introduction to K-12 Foreign Language Methods and Technology (3) Prerequisites: 2.5 GPA; permission of department. For education majors only. Language acquisition; theory and best practice in teaching reading, listening, speaking and writing; national proficiency standards; authentic classroom assessment; technology and materials; planning lessons and curricula; classroom organization and management; learning disabilities. Focus on key models; content-based foreign language, FLES (foreign language in elementary schools), K-12 FLEX (foreign language exploratory), and immersion. School visitation and observation in elementary and middle school will be arranged.

EDCI 342 Curriculum and Instruction in Elementary Education: Language (3) Arts Prerequisites: admission to teacher education program; 2.5 GPA; EDCI397; and permission of department. Corequisites: EDCI322; EDCI352; EDCI362; and EDCI372. For elementary education majors only. Listening, oral communication, functional writing, creative writing, spelling, handwriting, and creative expression. Includes laboratory/field experiences.

EDCI 350 Curriculum and Instruction in Secondary Education: Mathematics (3) Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; and six semester hours of 400-level mathematics courses. Corequisite: EDCI355. For education majors only. Objectives, selection and organization of subject matter, appropriate methods, lesson plans, textbooks and other instructional materials, measurement and topics. For pre-service mathematics teachers.

EDCI 352 Curriculum and Instruction in Elementary Education: Mathematics (3) Prerequisites: admission to teacher education program; 2.5 GPA; EDCI397; permission of department. Corequisites: EDCI322; EDCI342; EDCI362; and EDCI372. For elementary education majors only. Materials and procedures to help children sense arithmetical meanings and relationships. Development of an understanding of the number system and arithmetical processes. Includes laboratory/field experiences.

EDCI 355 Field Experience in Secondary Mathematics Education (1) Three hours of laboratory per week. Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; and six semester hours of 400-level mathematics courses. For education majors only. Practical experience as an aide to a regular secondary mathematics teacher; assigned responsibilities and participation in a variety of teaching/learning activities.

EDCI 356 Field Experience in Elementary Mathematics Education (1) Three hours of laboratory per week. Prerequisites: admission to teacher education program; 2.5 GPA; permission of department. Corequisites: EDCI322; EDCI342; and EDCI352. For education majors only. Practical experience as an aide to a regular elementary mathematics teacher; assigned responsibilities and participation in a variety of teaching/learning activities.

EDCI 360 Disciplined-Based Art Education Methods II (3) Three hours of lecture and three hours of laboratory per week. Prerequisites: admission to teacher education program; 2.5 GPA; permission of department. For art education majors only. EDCI360 is designed to provide prospective art teachers with a knowledge base of the theories and best practices which are relevant to effective pedagogy as well as current art education goals and standards. This course focuses on understanding and using research-based teaching techniques and strategies in planning, teaching and evaluating instruction in the K-12 classroom. Emphasis is placed on principles of effective instruction, classroom management, multiculturalism, thinking/questioning/problem solving skills and adaptation/modification of instruction for diverse student populations. Students will be encouraged to explore their understandings and beliefs about teaching (pedagogy) and learning.

EDCI 362 Curriculum and Instruction in Elementary Education: Reading (3) Prerequisites: admission to teacher education program; 2.5 GPA; EDCI397; and permission of department. Corequisites: EDCI322; EDCI342; and EDCI352. For elementary education majors only. Provide future elementary school teachers with the understandings and strategies to plan effective reading instruction. Participants will: a) learn a variety of developmentally appropriate word recognition strategies; b) learn a variety of developmentally appropriate comprehension strategies to enhance student understanding and interpretation of text; c) learn how to implement a balanced literacy program; d) learn appropriate early identification and intervention strategies to assist students with different learning styles, and emerging literacy; and e) learn...
how to establish and maintain an organized classroom environment that fosters interests, motivation, and positive attitudes/perceptions about all aspects of literacy.

**EDCI 372 Curriculum and Instruction in Elementary Education: Science (3)** Prerequisites: admission to teacher education program; 2.5 GPA; EDCI397; and permission of department. Corequisites: EDCI322; EDCI342; EDCI352; EDCI362. For elementary education majors only. Objectives, methods, materials and activities for teaching science in the elementary school; emphasis on teaching strategies which help children learn the processes and concepts of science. Includes laboratory/field experiences.

**EDCI 373 Practicum in Ceramics (3)** Six hours of laboratory per week. For art education majors only. 3 semester hours. Junior standing. Not open to students who have completed a ceramic course. Credit will be granted for only one of the following: EDCI273 or EDCI373. Formerly EDCI 273. A lecture/studio format designed to introduce the use of clay and ceramics in a wide variety of educational settings.

**EDCI 375 Field Experience in Science Education (1)** Corequisite: EDCI470. For science education majors only. This field experience course is designed to provide prospective teachers with knowledge of theory and best school practice relevant to effective pedagogy, current educational goals, and trends in educational assessment in a public school environment. Topics include planning, instructional delivery, diversity and individual differences, classroom management, technology, and the inclusion of students with special needs.

**EDCI 380 Curriculum and Instruction: Elementary (3)** Focuses on developmental needs at various age levels, with emphasis upon the activities, materials, and methods by which educational objectives are attained.

**EDCI 385 Computers for Teachers (3)** Prerequisites: admission to teacher education program; and 2.5 GPA. For education majors only. A first-level survey of instructional uses of computers, software, and related technology for preservice teachers.

**EDCI 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.

**EDCI 390 Principles and Methods of Secondary Education (3)** Prerequisites: admission to teacher education program; and 2.5 GPA. For education majors only. Principles and methods of teaching in junior and senior high schools. Instructional problems common to all of the subject fields, considered in relation to the needs and interests of youth, social problems and the central values of society.

**EDCI 397 Principles and Methods of Teaching in Elementary Schools (3)** Prerequisites: admission to teacher education program and 2.5 GPA. For education majors only. Teaching strategies, classroom interactive techniques, and procedures for planning and evaluating instruction in elementary schools. Emphasis on principles of effective instruction, classroom management, and adaptation of instruction for various student populations.

**EDCI 400 Field Experience in Art Education (1)** Four hours of laboratory per week. Prerequisites: permission of department. For Art Education majors. Practical classroom experience in teaching/evaluating/exhibiting the products of art lessons.

**EDCI 401 Student Teaching in Elementary School: Art (4-8)** Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; and EDCI300. For art education majors only.

**EDCI 402 Student Teaching in Secondary Schools: Art (2-8)** Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; EDCI300. For art education majors only.

**EDCI 403 Teaching Art Criticism and Aesthetics (3)** Three hours of discussion/recitation per week. For art education majors only. Prerequisite: admission to teacher education program; 2.5 GPA; ARTH200 and ARTH201. Introduction to the teaching of art criticism and aesthetics in K-12 art education programs. Trips to galleries and museums.

**EDCI 404 Student Teaching Seminar: Art Education (3)** Prerequisite: Admission to Teacher Education Program; 2.5 GPA; and EDCI300, EDCI400, EDCI405. Corequisite: EDCI401 and EDCI402. For art education majors only. An analysis of teaching theories, strategies, and techniques in the student teaching experience.

**EDCI 405 Art Education Methods I (3)** Two hours of lecture and one hour of laboratory per week. Prerequisite: admission to teacher education program; 2.5 G.P.A.; and permission of department. For education majors only. Credit will be granted for only one of the following: EDCI300 or EDCI405. Formerly EDCI 300. Methods I provides future art teachers with a knowledge base of the theories and best practices of effective pedagogy for: teaching methods and strategies, diversity, motivational techniques, classroom management, assessment and evaluation methods, and accommodating all students including those with special needs.

**EDCI 406 Technology and Two-Dimensional Art (3)** Two hours of laboratory and two hours of discussion/recitation per week. Prerequisite: admission to teacher education program; 2.5 GPA; ARTT210;
EDCI 407 Practicum in Art Education: Three-Dimensional (3) For pre-art education and art education majors only. A lecture-studio course to develop skills, material resources, and educational strategies for three-dimensional projects in school settings.

EDCI 410 Methods I: K-12 Foreign Language Methods and Technology (3) Prerequisite: 2.5 G.P.A.; and permission of department. Not open to students who have completed EDCI330. Credit will be granted for only one of the following: EDCI330 or EDCI410. Formerly EDCI 330. The first of two sequential courses required for achieving competence in teaching a foreign language. The sequel to this course is EDCI433 (Methods II) entitled: Advanced K-12 Foreign Language Methods and Technology. EDCI410 requires on-going examination of theories relevant to language acquisition. Students will also investigate the instructional methods that reflect these theories.

EDCI 411 Knowledge, Reasoning, and Learning in Science (3) Prerequisite: 2.5 GPA; and permission of department. Junior standing. Credit will be granted for only one of the following: EDCI370 or EDCI411. Formerly EDCI 370. For prospective science teachers. Investigations of the nature of knowledge, reasoning, and learning in middle and secondary science. Readings from cognitive science and science education research; studies of student thinking in interview and classroom observations; analyses of curricula. Includes laboratory and field experiences.

EDCI 416 Curriculum and Instruction in Secondary Education: English Speech (3) Theatre Prerequisites: admission to teacher education program; 2.5 GPA; and permission of department. Credit will be granted for only one of the following: EDCI340 or EDCI416. Formerly EDCI 340. An introduction for prospective middle and secondary English teachers into the basic issues, concepts, orientations, and processes that shape the teaching of English for diverse students in schools. Candidates explore their own perspectives in relation to local and national trends and develop basic teaching understanding and skills through on-campus seminars, teaching laboratory experiences, and guided field experiences.

EDCI 417 Bases for English Language Instruction (3) Two hours of lecture and 1/2 day field placement per week. Prerequisite: admission to teacher education program; EDHD413; and EDHD420. Provides students with knowledge of current theory, research, and pedagogy focused on the teaching of English to English language learners. Topics include morphology, syntax, semantics, vocabulary, pragmatics, arguments, discourse structure, and English language usage. Exceptional student, inclusion, and diversity issues will be considered.

EDCI 420 Student Teaching Seminar in Secondary Education: Social Studies (3) Prerequisites: admission to teacher education program; 2.5 GPA. Corequisite: EDCI421 or EDCI422. An analysis of teaching theories, strategies, and techniques in the student teaching experience.

EDCI 421 Student Teaching in Secondary Schools: Social Studies/History (12) Prerequisites: admission to teacher education program; 2.5 GPA; permission of department. Corequisite: EDCI420.


EDCI 423 Art Education Methods II (3) Prerequisite: admission to teacher education program; 2.5 G.P.A.; and EDCI405 or equivalent. Corequisite: EDCI400. For art education majors only. Methods II builds upon the pedagogical foundation of Methods I and provides future art teachers with the means for developing pre K-12 art lessons and unit plans for a balanced qualitative art program for today's diverse and inclusive schools and classrooms.


EDCI 425 Social Studies and Multicultural Education (3) Seminar in general social science principles applicable to multicultural education. Cultural experiences arranged for each participant.

EDCI 426 Materials and Resources in Social Studies (3) Prerequisite: permission of department and 2.5 GPA. The course will emphasize the identification, appropriate selection, implementation and assessment of materials and resources that promote social studies instruction that is theory based for multiple settings.

EDCI 427 Curriculum and Instruction in Secondary Education: Social Studies (3) and History Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; EDHD413 and EDHD420. Corequisite: EDCI428. For education majors only. Credit will be granted for only one of the following: EDCI320 or EDCI427. Formerly EDCI 320. Objectives, selection and organization of subject matter, appropriate methods, lesson plans, textbooks and other instructional materials, measurement and topics pertinent to social studies education. Includes emphasis on multi-cultural education.
EDCI 428 Field Experience in Secondary Social Studies Teaching (1) Three hours of laboratory per week. Prerequisites: admission to teacher education program; 2.5 GPA; and permission of department. Corequisite: EDCI427. For education majors only. Practical experience as an aide to a regular social studies teacher; assigned responsibilities and participation in a variety of teaching/learning activities.

EDCI 430 Student Teaching Seminar in Secondary Education: Foreign Language (3) Prerequisites: admission to teacher education program; 2.5 GPA; and EDCI330. Corequisite: EDCI431. An analysis of teaching theories, strategies and techniques in the student teaching experience.

EDCI 431 Student Teaching in Secondary Schools: Foreign Language (12) Prerequisites: admission to teacher education program; and 2.5 GPA; and permission of department; and EDCI330. Corequisite: EDCI430.

EDCI 433 Advanced K-12 Foreign Language Methods and Technology (3) Prerequisites: EDCI330, EDHD413, EDHD420 and permission of department. Corequisite: EDCI438. For EDCI majors only. Teaches advanced best practices for effective foreign language instruction. Topics include: using authentic assessment and materials, applying national standards, teaching writing and culture, motivating students, providing strategy instruction, infusing technology, preparing for K-12 employment, and creating a professional portfolio. Field experience (in co-requisite EDCI438) focuses on middle and high school.

EDCI 438 Field Experience in Second Language Education (1) Four hours of laboratory per week. Prerequisites: permission of department. Corequisite: EDCI330. For Second Language Education majors only. Repeatable to 3 credits if content differs. Practical experience as an aide to a regular foreign language teacher; assigned responsibilities and participation in a variety of teaching/learning activities.

EDCI 440 Student Teaching Seminar in Secondary Education: English, Speech, (1) Theatre Prerequisites: admission to teacher education program; 2.5 GPA; EDCI417. Corequisite: EDCI441. An analysis of teaching theories, strategies and techniques in relation to the student teaching experience.

EDCI 441 Student Teaching in Secondary Schools: English (12) Prerequisites: admission to teacher education program; and EDCI417. Corequisite: EDCI440. Practical experience as an aide to a regular English, speech or drama teacher; assigned responsibilities and participation in a variety of teaching/learning activities.

EDCI 442 Student Teaching in Secondary Schools: Speech/English (12) Prerequisites: admission to teacher education program; and EDCI417. Corequisite: EDCI440. Practical experience as an aide to a regular English, speech or drama teacher; assigned responsibilities and participation in a variety of teaching/learning activities.

EDCI 443 Literature for Children and Youth (3) For elementary education and pre-elementary education majors only. Analysis of literary materials for children and youth. Timeless and ageless books, and outstanding examples of contemporary publishing. Evaluation of the contributions of individual authors, illustrators and children's book awards.

EDCI 446 Methods of Teaching English, Speech, Theatre in Secondary Schools (3) Prerequisites: permission of department. Objectives, selection and organization of subject matter, appropriate methods, lesson plans, textbooks and other instructional materials, measurement and topics pertinent to English, speech, and drama education. For in-service teachers.

EDCI 447 Field Experience in English, Speech, Theatre Teaching (1) Prerequisites: admission to teacher education program; 2.5 GPA. Corequisite: EDCI417. For education majors only. Practical experience as an aide to a regular English, speech or drama teacher; assigned responsibilities and participation in a variety of teaching/learning activities.

EDCI 448 Field Experience in Secondary Social Studies Teaching (1) Three hours of laboratory per week. Prerequisites: permission of department. Corequisite: EDCI427. For education majors only. Practical experience as an aide to a regular social studies teacher; assigned responsibilities and participation in a variety of teaching/learning activities.

EDCI 450 Student Teaching Seminar in Secondary Education: Mathematics (1) Prerequisites: admission to teacher education program; 2.5 GPA; EDCI457; and EDCI455 or EDCI651. Corequisite: EDCI451 and EDCI474. An analysis of teaching theories, strategies and techniques in the student teaching experience.

EDCI 451 Student Teaching in Secondary Schools: Mathematics (12) Prerequisites: admission to teacher education program; 2.5 GPA; permission of department. Corequisite: EDCI450.

EDCI 455 Methods of Teaching Mathematics in Secondary Schools (3) Prerequisite: 2 semesters of calculus. Objectives, selection and organization of subject matter, appropriate methods, lesson plans, textbooks and other instructional materials, measurement, and topics pertinent to mathematics education.
EDCI 457 Teaching and Learning Middle School Mathematics (3) Two hours of lecture and two hours of laboratory per week. Prerequisites: admission to teacher education program or permission of department; 2.5 GPA; and permission of department for post-baccalaureate students. Methods of teaching and assessing the middle school mathematics curriculum. Understanding the conceptual difficulties students have in moving from whole numbers to rational numbers, additive thinking to multiplicative thinking, and arithmetic to algebra. Lesson planning and selection of technology and other materials are applied in the context of supervised tutoring of students having difficulty in middle school mathematics.

EDCI 460 Student Teaching: Elementary/Middle (15) Prerequisites: EDCI322; EDCI342; EDCI352; EDCI362; and EDCI372. For Elementary Education majors only. A field experience with eight weeks of student teaching at the elementary level and eight weeks at the middle school level.

EDCI 461 Materials and Instruction for Creating Skilled and Motivated (3) Readers, Part I Prerequisite: permission of department. For Elementary Education majors only. Junior standing. Selecting, evaluating, and using a variety of materials to create skilled and motivated readers in the elementary grades; Topics include emergent literacy, vocabulary development, reading comprehension and oral reading fluency in diverse classroom settings.

EDCI 462 Materials and Instruction for Creating Skilled and Motivated (3) Readers, Part II Prerequisite: admission to teacher education program; 2.5 GPA; EDCI361 or EDCI461; EDCI397; and permission of department. Corequisite: EDCI322, EDCI342, EDCI352, and EDCI372. For Elementary Education majors only. Selecting, evaluating, and using a variety of materials to create skilled and motivated readers in the elementary grades, particularly in diverse classroom settings; Topics include word analysis, spelling, writing, reading comprehension strategies, directed reading lessons, and explicit instruction.

EDCI 463 Reading in the Secondary School (3) Prerequisites: admission to teacher education program; and 2.5 GPA; or permission of department required for post-baccalaureate students. For education majors only. Provides secondary school teachers with understanding the need for and approaches to teaching students to read and learn from content area texts.

EDCI 464 Assessment for Reading (3) Prerequisite: EDCI362. For Elementary Education or Early Childhood Education majors only. Senior standing. Examination of reading assessment theory, materials and procedures; Topics include validity and reliability in reading assessment, formal and informal assessment, reading instruction that is informed by ongoing assessment, and the effects of assessment on students and schooling in a diverse society.

EDCI 465 Language, Culture, and Education (3) Prerequisite: LING200 or permission of department. Survey of sociolinguistic and psycholinguistic perspectives for the study of language and education; examination of pragmatics, speech act theory, and dimensions of language variation (dialects, codes, and registers); implications for educational research and instructional practice.

EDCI 466 Literature for Adolescents (3) Prerequisites: admission to teacher education program; 2.5 GPA. permission of department required for post-baccalaureate students. For education majors only. Reading and analysis of fiction and nonfiction; methods for critically assessing quality and appeal; current theory and methods of instruction; research on response to literature; curriculum design and selection of books.

EDCI 467 Teaching Writing (3) Prerequisite: permission of department. Sources and procedures for developing curriculum objectives and materials for teaching written composition; prewriting, composing, and revision procedures; contemporary directions in rhetorical theory; survey of research on composition instruction.


EDCI 471 Student Teaching in Secondary Schools: Science (12) Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; and EDCI370. Corequisites: EDCI371 and EDCI470.

EDCI 472 Methods of Teaching Science in Secondary Schools (3) Prerequisite: permission of department. Methods for classroom and laboratory instruction, determining appropriate teaching methods, selecting instructional materials, evaluating student achievement. Includes lab and field experience. For inservice teachers.

EDCI 473 Environmental Education (3) Two hours of lecture and three hours of laboratory per week. An interdisciplinary course covering the literature, techniques and strategies of environmental education.

EDCI 474 Inclusion, Diversity, and Professionalism in Secondary Education (2) Prerequisite: admission to teacher education. Corequisite: enrolled in student teaching/certification area. For secondary education majors only. Cross disciplinary capstone course for Secondary Education majors. Discussion and analysis of critical issues relevant to teaching: inclusion, diversity, professionalism, English language learners, school politics, social justice, school-community relations, and parent engagement.
EDCI 481 Student Teaching: Elementary (12) Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; EDCI322; and EDCI342; EDCI352; EDCI362; and EDCI372. Corequisite: EDCI464.

EDCI 484 Student Teaching in Elementary School: Music (4-6) Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; MUED411; MUED420; MUED470; MUED471; and MUED472. Corequisite: EDCI494. Fulfills elementary teaching requirements in K-12 music education programs.

EDCI 485 Student Teaching in Elementary School: Physical Education (4-8) For EDCI majors only. Fulfills elementary teaching requirements in K-12 physical education programs.

EDCI 486 Supervision of Student Teachers (1-3) Designed for in-service teachers. The development and refinement of skills in observing, evaluating and conducting conferences with student teachers. Clinical supervision and cooperative problem solving. Required by some school systems for supervision of student teachers.

EDCI 488 Selected Topics in Teacher Education (1-3) Prerequisite: EDCI major or permission of department. Repeatable to 6 credits if content differs.

EDCI 489 Field Experiences in Education (1-4) Prerequisite: permission of department. Corequisite: EDCI497. Repeatable to 4 credits.

EDCI 491 Student Teaching in Secondary Schools: Health (12) For EDCI majors only.

EDCI 494 Student Teaching in Secondary Schools: Music (2-8) For EDCI majors only.

EDCI 495 Student Teaching in Secondary Schools: Physical Education (2-8) For EDCI majors only.

EDCI 497 The Study of Teaching (3) Prerequisite: EDCI481. Corequisite: EDCI489. Identification and examination of learner and teacher outcome variables related to teaching systems, methods, and processes. Methods of conducting classroom research.

EDCI 498 Special Problems in Teacher Education (1-6) Prerequisite: permission of department. For EDCI majors only. Repeatable to 6 credits. Individual study of approved problems.

EDCI 499 Workshops, Clinics, and Institutes (1-6) Repeatable to 6 credits. The following types of educational enterprise may be scheduled under this course heading: workshops conducted by the College of Education (or developed cooperatively with other colleges and universities) and not otherwise covered in the present course listing; clinical experiences in pupil testing centers, reading clinics, speech therapy laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals and supervisors.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: EDCP - Education Counseling and Personnel Services
Course Number:

Courses in “EDCP-Education Counseling and Personnel Services”

EDCP - Education Counseling and Personnel Services

EDCP 108 College and Career Advancement: Concepts and Skills (1) Repeatable to 3 credits if content differs. Knowledge and skills designed to enhance college as a learning experience or preparation for life.

EDCP 220 Introduction to Human Diversity in Social Institutions (3) This highly-interactive format focuses on individual and social identities in the U.S., group differences and intergroup relations, systems of privilege and oppression, and advocacy for social justice. Topics will include diversity related to race, ethnicity, gender, sexual orientation, social class, (dis)ability, and religion. Course fulfills CORE requirements in diversity, social/behavioral bases, and interdisciplinary study. Some sections restricted.
EDCP 310 Peer Counseling Theory and Skills (3) The theories and skills of peer helping relationships. Counseling theories and skills at a level appropriate for students seeking basic level training for use in peer counseling settings.

EDCP 312 Multi-Ethnic Peer Counseling (3) Prerequisite: undergraduate status. Sophomore standing. Formerly EDCP 310A. Knowledge, skills, and attitude to function as peer helpers of Multi-Ethnic students.

EDCP 317 Introduction to Leadership (3) Application of leadership theories, concepts, and skills. Completion of personal and leadership self-assessments, values exploration, and leadership skill practice through course activities.

EDCP 318 Applied Contextual Leadership (3) Three hours of lecture and five hours of laboratory per week. Prerequisite: permission of department. Repeatable to 6 credits if content differs. Course will utilize experiential learning opportunities to develop and apply the knowledge and skills of leadership into specific contexts of leadership practice.

EDCP 325 Substance Use and Abuse in American Society (3) Incidence, etiology, effects and management of substance use and abuse from a perspective of the individual, the family, and society.

EDCP 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

EDCP 411 Principles of Mental Health (3) Prerequisite: nine semester hours in the behavioral sciences or permission of department. Mechanisms involved with personal adjustment, coping skills, and the behaviors that lead to maladjustment.

EDCP 416 Theories of Counseling (3) An overview and comparison of the major theories of counseling, including an appraisal of their utility and empirical support.

EDCP 417 Advanced Leadership Seminar (3) Prerequisite: EDCP 317 or equivalent; permission of department. Students will analyze and synthesize the concept of leadership using cultural, ethical, sociological, historical perspectives. Exploration and reflection of personal values, decision making, in-depth analysis on various leadership activities. Theories will be emphasized.

EDCP 418 Special Topics in Leadership (3) Prerequisite: EDCP 317 or equivalent; permission of department. Repeatable to 6 credits if content differs. The special topics and leadership course will address a single topic related to leadership through the semester. In-depth study and analysis on the topic will be the basis for the course. Topics include gender and leadership, ethics and leadership, and culture and leadership. Leadership will serve as the foundation in the course.

EDCP 420 Advanced Topics in Human Diversity and Advocacy (3) Prerequisite: permission of department. This course will build upon students’ knowledge of diversity in American society and will examine contemporary topics related to multiculturalism in educational and community contexts as well as strategies for advocacy in such venues. This course fulfills CORE requirements in diversity.

EDCP 460 Introduction to Rehabilitation Counseling (3) Survey of principles and practices involved in the vocational rehabilitation of persons with disabilities.

EDCP 461 Psycho-Social Aspects of Disability (3) Theory and research concerning disability, with emphasis on crisis theory, loss and mourning, handicapped as a deviant group, sexuality and functional loss, attitude formation, dying process and coping. Implications for counseling and the rehabilitation process.

EDCP 462 Disability in American Society (3) Prerequisite: undergraduate status. 30 semester hours. Critical examination of the history of discrimination and analysis of current policies toward people with severe physical and mental disabilities.

EDCP 467 Special Topics in Psychology (3) Prerequisite: permission of department. A systematic analysis of research and theoretical literature on a variety of major problems in the organization and administration of student personnel services in higher education. Included will be discussion of such topics as the student personnel philosophy in education, counseling services, discipline, housing, student activities, financial aid, health, remedial services, etc.

EDCP 489 Field Experiences in Counseling and Personnel Services (1-4) Prerequisite: permission of department. Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

EDCP 498 Special Problems in Counseling and Personnel Services (1-3) Prerequisite: permission of department. Available only to major students who have formal plans for individual study of approved problems.
EDCP 499 Workshops, Clinics, Institutes (1-6) Repeatable to 6 credits. The following type of educational enterprise may be scheduled under this course heading: workshops conducted by the Department of Counseling and Personnel Services (or developed cooperatively with other departments, colleges and universities) and not otherwise covered in the present course listing; clinical experiences in counseling and testing centers, reading clinics, speech therapy laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups.

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Use the search box below to view the approved courses.

Select Program: EDHD - Education, Human Development

Course Number: __________

Search

Courses in "EDHD-Education, Human Development"

EDHD - Education, Human Development


EDHD 220 Exploring Teaching in Early Childhood Education (3) Corequisite: EDHD210. Practicum with preschool children at the Center for Young Children, University lab school, and other preschools. Students reflect on personal strengths, identify areas of growth, and examine their predisposition to teach.

EDHD 222 Literature in the Early Childhood Classroom (3) For early childhood education majors only. Credit will be granted for only one of the following: EDCI443A or EDHD222. Introduces students to the
of literature for young children. Through studying, reading, listening to and using books and poems, students develop an understanding about qualities in literature that are meaningful to children.

**EDHD 230 Human Development and Societal Institutions (3)** Development of the individual in the context of relationships with the formal and informal institutions of society. An examination of various aspects of development from the broad perspective of the social sciences.

**EDHD 285 Designing Multimedia Computer Environments for Learners (3)** For early childhood majors only. Freshman standing. A focus on the application of new computer technologies for learners in an educational setting. Topics to be explored: understanding the learner as a technology user, defining learning outcomes to be supported by technology, differing approaches to the technology design process and methods of technology integration in the classroom.

**EDHD 306 Research Methods in Human Development (3)** Addresses the scientific concepts and principles central to the study of human behavior and development. Students will learn about basic research methods in studying human behavior in developmental context and will participate in experiential activities, such as conducting observations and collecting self-report data. Major themes: goals of developmental research, fundamental research designs, types of measurement, elements of good scientific writing, and ethical issues in the study of human development.

**EDHD 313 Creative Experiences for Young Children (3)** Prerequisites: admission to teacher education program; 2.5 GPA; permission of department; EDCI280. For early childhood majors only. Credit will be granted for only one of the following: EDHD313 or EDCI313. Formerly EDCI 313. Provides preschool teachers with an understanding of the current research on the development of creativity and integration of the arts into an early childhood classroom. Resident artists from the Wolf Trap Company will give demonstration lesson in music, art, movement and dance.

**EDHD 314 Reading in Early Childhood Classroom: Instructions and Materials (3)** Part I For early childhood majors only. This course introduces early childhood students to current research and methods on teaching reading.

**EDHD 315 Reading in Early Childhood Classroom: Instruction and Materials (3)** Part II Prerequisite: EDHD314. For early childhood majors only. This course builds on the theories and teaching strategies of EDHD314. Students will focus on teaching of reading and writing to primary grade students.

**EDHD 319 Selected Topics in Human Development (3)** Repeatable to 6 credits if content differs. Selected topics in human development in relation to contemporary culture.

**EDHD 320 Human Development Through the Life Span (3)** Central concepts related to parameters of human development, individual and social, which arise throughout the life span. Continuity and change within the developing individual.


**EDHD 322 The Young Child as Mathematician (3)** Prerequisites: EDHD424, EDHD419, EDHD313, EDHD314, EDSP470. Corequisites: EDHD427, EDHD321, EDHD323, EDHD315, EDHD435. For early childhood majors only. Senior standing. Engages early childhood education majors in mathematics as a creative process and dynamic way of thinking. Throughout this process students will acquire the pedagogical knowledge important to teaching mathematics in grades pre-K through 3. Includes field experience.

**EDHD 323 Children Study Their World (2)** Prerequisites: EDHD424, EDHD419, EDHD313, EDHD314, EDSP470. Corequisites: EDHD427, EDHD321, EDHD322, EDHD315, EDHD435. For early childhood majors only. Senior standing. Provides a theoretical framework for pre-service teachers to understand and implement a developmentally appropriate social studies curriculum. The focus will be on methods of implementing theories of child development and curriculum, which foster higher level thinking skills in young children. Includes field experience.

**EDHD 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.

**EDHD 400 Introduction to Gerontology (3)** Multidisciplinary survey of the processes of aging. Physiological changes, cultural forces, and self-processes that bear on quality of life in later years. Field study of programs, institutions for elderly, individual elders, their families and care providers.

**EDHD 401 Promoting Optimal Aging (3)** Prerequisite: EDHD320, or EDHD400, or permission of department. Also offered as EDHD641. Credit will be granted for only one of the following: EDHD401 or EDHD641. Theoretical, research, and applied issues related to optimal aging from psychological, biological, and societal perspectives. Group or individual projects involving direct field experiences.
EDHD 411 Child Growth and Development (3) Theoretical approaches to and empirical studies of physical, psychological and social development from conception to puberty. Implications for home, school and community.

EDHD 413 Adolescent Development (3) Adolescent development, including special problems encountered in contemporary culture. Observational component and individual case study.

EDHD 415 Social Competence in Young Children (3) For early childhood majors only. Junior standing. Students will discuss issues and topics relevant to the study of children’s social competence, peer interactions, relationships, and groups. Includes field experience.

EDHD 416 Scientific Concepts in Human Development (3) Guided reading and observation of students through the school year. Impact of family, school, society, and peer group on the individual. Analysis of field data in terms of behavioral patterns.

EDHD 417 Laboratory in Behavior Analysis (3) Prerequisite: EDHD416. Continuation of analysis of field observations; emphasis on cognitive processes, motivation, self-concept, attitudes and values.

EDHD 419 Human Development and Learning in School Settings (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Advanced study of human development and learning in different phases of school program over a period of time.

EDHD 420 Cognitive Development and Learning (3) Prerequisite: either EDHD300, EDHD320, EDHD411, PSYC355, PSYC341 or permission of department. Current developmental theories of cognitive processes such as language, memory, and intelligence and how differences in cognitive level (infancy through adolescence) mediate learning of educational subject matters.

EDHD 424 Culture and Community Perspectives: The Diverse World of the (3) Child Corequisites: EDHD314, EDHD419, EDHD313, EDSP470. For early childhood majors only. Junior standing. Explores the development of the young child in the context of family and community, with particular emphasis on the impact of state, federal and school system policy on the child’s world.

EDHD 425 Language Development and Reading Acquisition (3) Two hours of lecture and one hour of discussion/recitation per week. This course focuses on young children’s language development and the relationship between language and reading acquisition. Students will learn: concepts central to language development; language achievements at different ages; concepts of emergent literacy; models of reading acquisition and skilled reading.

EDHD 426 Cognition and Motivation in Reading: Reading in Content Areas I (3) Students preparing for secondary teaching will learn the cognitive and motivational aspects of reading and learning from text in subjects of literature, science, history and mathematics. Different structured approaches to using text for content learning are presented. Classroom contexts that enable students to engage productively with diverse texts and internet resources are identified.

EDHD 427 Constructing and Integrating the Early Childhood Curriculum (3) Prerequisites: EDHD424, EDHD313, EDHD314, EDSP470. Corequisites: EDHD323, EDHD321, EDHD322, EDHD315, EDHD435. For early childhood majors only. Senior standing. Explores the world from the child’s perspective and constructs curriculum based on cognition, learning, and children’s experiences. The integrated curriculum is the overarching framework for this course. Includes field experience.

EDHD 430 Adolescent Violence (3) Prerequisite: PSYC100 or permission of department. Examines the roots of violence among adolescents and the extent to which this constitutes a problem in various settings. Research studies on its origins, prevention and intervention and implications for social policy are examined.

EDHD 432 Student Teaching Pre-K-3 (12) Prerequisites: EDHD427, EDHD321, EDHD322, EDHD323, EDHD435. Corequisite: EDCI464. For early childhood majors only. Senior standing. Not open to students who have completed EDHD421, EDHD422 and EDHD423. Credit will be granted for only one of the following: EDHD421, EDHD422, and EDHD423; or EDHD432.


EDHD 445 Guidance of Young Children (3) Prerequisite: PSYC100 or permission of department. Practical aspects for helping and working with children, drawing on research, clinical studies, and observation. Implications for day care and other public issues.

EDHD 460 Educational Psychology (3) Prerequisite: PSYC100 or permission of department. Application of
psychology to learning processes and theories. Individual differences, measurement, motivation, emotions, intelligence, attitudes, problem solving, thinking and communicating in educational settings. (May not be substituted for EDHD300 by students in professional teacher education programs.)

**EDHD 489 Field Experiences in Education (1-4)** Prerequisite: permission of department. Repeatable to 4 credits. Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

**EDHD 497 Designing Multimedia Computer Environments for Learners (3)** For early childhood majors only. Freshman standing. Also offered as EDHD285. Credit will be granted for only one of the following: EDHD285 or EDHD497. Focuses on how new computer technologies for learners can be created and used in an educational setting. The following topics will be explored: understanding the learner as a technology user, defining learning outcomes to be supported by technology, differing approaches to the technology design process and methods of technology integration in the classroom.

**EDHD 498 Special Problems in Education (1-3)** Prerequisite: permission of department. Available only to students who have definite plans for individual study of approved problems.

**EDHD 499 Workshops, Clinics, and Institutes (1-6)** Repeatable to 6 credits. The following types of educational enterprise may be scheduled under this course heading: workshops conducted by the College of Education (or developed cooperatively with other colleges and universities) and not otherwise covered in the present course listing; clinical experiences in pupil-testing centers, reading clinics, speech therapy laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals and supervisors.

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Use the search box below to view the approved courses.

Select Program:  EDMS - Measurement, Statistics, and Evaluation

Course Number:  ____________________________

Search

Courses in "EDMS-Measurement, Statistics, and Evaluation"

EDMS - Measurement, Statistics, and Evaluation

EDMS 410 Classroom Assessment (3)  Junior standing. Developing and using classroom assessments, including tests, performance assessments, rating scales, portfolios, observations and oral interactions; basic psychometric statistics; standard setting; grading; communicating assessment information; testing ethics; locating and evaluating measures; program evaluation and classroom research; assessments used for educational policy decisions.

EDMS 451 Introduction to Educational Statistics (3)  Junior standing. Introduction to statistical reasoning; location and dispersion measures; computer applications; regression and correlation; formation of hypotheses tests; t-test; one-way analysis of variance; analysis of contingency tables.
EDMS 489 Field Experiences in Measurement and Statistics (1-4) Prerequisite: permission of department. Repeatable to 4 credits. Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

EDMS 498 Special Problems in Measurement and Statistics (1-3) Prerequisite: permission of department. Repeatable to 6 credits. Available only to education majors who have formal plans for individual study of approved problems.
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Select Program: EDPL - Education Policy and Leadership

Course Number:  

Search

Courses in "EDPL-Education Policy and Leadership"

EDPL - Education Policy and Leadership

EDPL 201 Education in Contemporary American Society (3) An examination of the relationship between education and the social environment in contemporary American society. Issues of equality or equal opportunity, individual and cultural differences, education outside of schools, the control of education, and the future of education.

EDPL 210 Historical and Philosophical Perspectives on Education (3) Formerly EDPA 210. An examination of illustrative historical and philosophical examples of the interplay of ideas and events in the shaping of educational aims and practices from ancient cultures to modern technological societies.
EDPL 288 Special Problems in Education (1-6) Prerequisite: permission of department. Formerly EDPA 288. Available only to freshmen and sophomore students who have definite plans for individual study of approved problems relative to their preparation for teaching.

EDPL 301 Foundations of Education (3) Formerly EDPA 301. Social context of education and conflicts over philosophies, values, and goals that are reflected in educational institutions in our pluralistic society. Helps teachers become reflective, critical thinkers about the social and philosophical issues they face and the choices they make.

EDPL 338 Teaching and Learning about Cultural Diversity through Intergroup Dialogue (1-3) Prerequisite: Completion of on-line registration form. Repeatable to 6 credits if content differs. Formerly EDPL 288. Engages students, from one or more cultural identity groups, in facilitated dialogue about the similarities and differences of experience that exist within a group and/or between and across groups. The goal of intergroup dialogue is for students to develop comfort with, and skill for, discourse on difficult topics toward the end of fostering positive, meaningful, and sustained crossgroup relationships. Whereas in debate, students learn to listen to gain advantage, in intergroup dialogue, students learn to listen to gain understanding. In so doing, students develop increased multicultural interaction facility, heightened intergroup awareness and sensitivity, and greater commitment to civic engagement.

EDPL 401 Educational Policy, and Social Change (3) Junior standing. Formerly EDPA 401. An examination of education policy in relation to the social environment and change. Contemporary education and social issues are examined, including technology as a complex force which influences social change. This is a Social Foundations course.

EDPL 488 Special Topics in Education Policy and Administration (1-3) Prerequisite: permission of department. Repeatable to 6 credits. Formerly EDPA 488. Special and intensive treatment of current topics and issues in education policy and administration.

EDPL 489 Field Experiences in Education (1-4) Prerequisite: permission of department. Formerly EDPA 489. Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

EDPL 498 Special Problems in Education (1-3) Prerequisite: permission of department. Formerly EDPA 498. Available only to students who have definite plans for individual study of approved problems.

EDPL 499 Workshops, Clinics, and Institutes (1-6) Repeatable to 6 credits. Formerly EDPA 499. The following type of educational enterprise may be scheduled under this course heading: Workshops conducted by the College of Education (or developed cooperatively with other colleges and universities) and not otherwise covered in the present course listing; clinical experiences in pupil-testing centers, reading clinics, speech therapy laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals, and supervisors.

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Select Program:  EDSP - Education, Special  
Course Number:  

Courses in "EDSP-Education, Special"

EDSP - Education, Special

EDSP 210 Introduction to Special Education (3)  Class Standing: Freshman or Sophomore or permission of department. Not open to students who have completed EDSP470. Credit will be granted for only one of the following: EDSP210 or EDSP470. Characteristics and needs of individuals receiving special education and related services. Current issues and practices in special education.

EDSP 288 Special Topics in Teacher Education (1-3)  Prerequisite: major in education or permission of department. Repeatable to 6 credits if content differs.

EDSP 298 Special Problems in Teacher Education (1-6)  Prerequisite: permission of department.
Available only to freshmen and sophomore education majors who have definite plans for individual study of approved problems relative to their preparation for teaching. Credit according to extent of work.

**EDSP 376 Fundamentals of Sign Language (3)** Receptive and expressive skills in American Sign Language. Examination of the causes of deafness, characteristics of deaf education, and aspects of the culture of the deaf community.

**EDSP 386 Experiential Learning (3-6)** Prerequisite: learning proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**EDSP 400 Functional Assessment and Instruction in Special Education (3)** For EDSP or 0808P majors only. 3 semester hours. Also offered as EDSP602. Credit will be granted for only one of the following: EDSP400 or EDSP602. Functional assessment procedures and instructional methods for students with severe disabilities from birth to adulthood.

**EDSP 402 Field Placement: Severe Disabilities I (2-5)** Pre- or corequisites: EDSP400 and EDSP404; or permission of department. Practicum experience in settings serving severely disabled individuals. Enrollment limited to those admitted to severely handicapped specialty area. Field placement for two to five half-days per week.

**EDSP 403 Instructions of Students with Physical Disabilities (3)** For EDSP or 0808P majors only. Also offered as EDSP603. Credit will be granted for only one of the following: EDSP403 or EDSP603. Assessment, curriculum, and instruction for students with physical disabilities. Focus on etiology, environmental and learning adaptations, and assistive technology.

**EDSP 404 Education of Students with Autism (3)** Pre- or corequisites: (EDSP400 and EDSP402) or permission of department. Also offered as EDSP604. Credit will be granted for only one of the following: EDSP404 or EDSP604. Characteristics, needs, assessment, and educational methods for students diagnosed as autistic.

**EDSP 405 Field Placement: Severe Disabilities II (2-5)** Prerequisite: EDSP402 or permission of department. Pre- or corequisites: EDSP403, and EDSP410; or permission of department. Practicum experience in settings serving severely disabled individuals. Field placement for two to five half-days per week.

**EDSP 406 Field Placement I (1-3)** Restricted to students with the following major codes: EDSP, and 0808P. Credit will be granted for only one of the following: EDSP322 or EDSP406. Formerly EDSP 322. Practicum experience in special education.

**EDSP 407 Field Placement II: Special Education (1-3)** For EDSP or 0808P majors only. Credit will be granted for only one of the following: EDSP333 or EDSP407. Formerly EDSP 333. Practicum experience in special education. Field placement for two-three half days.

**EDSP 410 Functional Reading and Community Based Instruction (3)** For EDSP or 0808P majors only. Credit will be granted for only one of the following: EDSP410 or EDSP614. Functional assessment, curriculum, and instruction related to reading and community functioning skills for students with severe disabilities.

**EDSP 412 Vocational and Transitional Instruction for Students with Severe Disabilities (3)** Prerequisite: permission of department. Assessment and instructional strategies for developing the vocational and transitional skills of students with severe disabilities.

**EDSP 413 Behavior and Classroom Management in Special Education (3)** For EDSP or 0808P majors only. Also offered as EDSP613. Credit will be granted for only one of the following: EDSP321, EDSP413, or EDSP613. Formerly EDSP 321. Use of applied behavior analysis for assessment of behavior and learning environments. Design of behavior and classroom management of students in special education.

**EDSP 415 Assessment in Special Education (3)** Recommended: STAT100 or SOCY201. For EDSP or 0808P majors only. Also offered as EDSP615. Credit will be granted for only one of the following: EDSP320, EDSP415 or EDSP615. Formerly EDSP 320. Knowledge and skills for understanding assessment process and interpretation of assessment data. Emphasis on psychometric aspects of assessment related to screening, eligibility, and program planning.

**EDSP 416 Reading and Writing Instruction in Special Education I (3)** For EDSP or 0808P majors only. Also offered as EDSP616. Credit will be granted for only one of the following: EDSP416, EDSP443 or EDSP616. Formerly EDSP 443. Assessment and instruction of reading and writing skills for students in special education.

**EDSP 420 Characteristics of Infants & Young Children: Early Childhood (3)** Special Education For EDSP or 0808P majors only. Also offered as EDSP626. Credit will be granted for only one of the following: EDSP420 or EDSP626. Focus on developmental, behavioral, and learning characteristics of infants and young
EDSP 421 Field Placement III: Early Childhood Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in early childhood special education. Field placement for three half days per week.

EDSP 422 Curriculum and Instruction: Early Childhood Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP627. Credit will be granted for only one of the following: EDSP422 or EDSP627. Curriculum and instruction for young children with mild and moderate disabilities, preschool through primary grades.

EDSP 423 Assessment in Early Childhood Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP624. Credit will be granted for only one of the following: EDSP423 or EDSP624. Assessment procedures for infants and young children with disabilities, birth through age eight.

EDSP 424 Field Placement IV: Early Childhood Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in early childhood special education. Field placement for three half days per week.

EDSP 430 Early Intervention: Early Childhood Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP631. Credit will be granted for only one of the following: EDSP430 or EDSP631. Intervention with infants and young children with disabilities. Focus on moderate and severe disabilities.

EDSP 431 Field Placement V: Early Childhood Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in early childhood special education. Field placement for three half days per week.

EDSP 434 Field Placement III: Middle/Secondary Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in middle and secondary special education. Field placement for three half days per week.

EDSP 435 Field Placement IV: Middle/Secondary Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in middle and secondary special education. Field placement for three half days per week.

EDSP 436 Field Placement V: Middle/secondary Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in middle and secondary special education. Field placement for three half days per week.

EDSP 450 Inclusive Practices in the Schools (3) Educational practices regarding inclusive education in the schools for students with and without disabilities.

EDSP 451 Curriculum and Instruction: Elementary Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP652. Credit will be granted for only one of the following: EDSP451 or EDSP652. Methods for instruction of students with disabilities in the general education curriculum. Collaboration with other professionals is included.

EDSP 452 Field Placement III: Elementary Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in elementary special education. Field placement for three half days per week.

EDSP 453 Methods and Models of Instruction: Elementary Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP653. Credit will be granted for only one of the following: EDSP453 or EDSP653. Focus on models and methods of instruction responsive to the cognitive, linguistic, and cultural characteristics of elementary students in special education.

EDSP 454 Field Placement IV: Elementary Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in elementary special education. Field placement for three half days per week.

EDSP 455 Assessment in Elementary Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP654. Credit will be granted for only one of the following: EDSP455 or EDSP654. Focus on selection, administration, and interpretation of assessment tools and results for designing instruction and evaluating progress of elementary students in special education.

EDSP 456 Field Placement V: Elementary Special Education (2-4) For EDSP or 0808P majors only. Practicum experience in elementary special education. Field placement for three half days per week.

EDSP 462 Vocational Assessment and Instruction in Special Education (3) Prerequisite: EDSP460 or permission of department. Current vocational assessment strategies, interpretation of assessment results, and planning, delivery and evaluation of instruction in vocational education for secondary students with disabilities.

EDSP 464 Secondary and Transition Methods in Special Education (3) Prerequisite: EDSP462 or
EDSP 466 Issues and Models of Instruction: Middle/Secondary Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP664. Credit will be granted for only one of the following: EDSP466 or EDSP664. Issues, legislation, and service models in middle/secondary special education. Emphasis on career and vocational education, self-determination, and transition.

EDSP 470 Introduction to Special Education (3) Not open to students who have completed EDSP210. Credit will be granted for only one of the following: EDSP210 or EDSP470. Designed to give an understanding of the needs of all types of exceptional children.

EDSP 474 Assessment in Middle/Secondary Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP674. Credit will be granted for only one of the following: EDSP474 or EDSP674. Cognitive, vocational, and social assessment for students with disabilities. Emphasis on interpretation of assessment results and case management practices.

EDSP 476 Communicating with Sign Language (3) Prerequisite: EDSP376 or permission of department. Intermediate level receptive/expressive skills in American Sign Language. Aspects of the culture, history, and research perspectives of the deaf community.

EDSP 477 Curriculum, Assessment, and Instruction: Middle/Secondary Special (3) Education For EDSP or 0808P majors only. Also offered as EDSP677. Credit will be granted for only one of the following: EDSP477 or EDSP677. Methods and assessment practices for effective instruction in middle and secondary content areas for students in special education.

EDSP 482 Literacy Approaches for At-Risk Adolescents (3) Pre- or corequisite: EDHD426 or permission of department. Credit will be granted for only one of the following: EDSP482 or EDSP682. Provides approaches to teaching reading in the content areas for secondary students with disabilities.

EDSP 484 Reading and Writing Instruction in Special Education II (3) Prerequisite: EDSP416. For EDSP or 0808P majors only. Also offered as EDSP684. Credit will be granted for only one of the following: EDSP484 or EDSP684. Focus on the development of reading and writing programs for students in special education. Builds on foundations established in EDSP416.

EDSP 485 Assessment and Instruction in Mathematics in Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP683. Credit will be granted for only one of the following: EDSP485 or EDSP683. Instructional methods and assessment in mathematics in special education.

EDSP 486 Promoting Prosocial Behavior in Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP686. Credit will be granted for only one of the following: EDSP486 or EDSP686. Focus on social development among students with and without disabilities, the relationship between pedagogy and student behavior, and classroom, school, and community approaches for developing prosocial behavior.

EDSP 487 Family Partnerships in Special Education (3) For EDSP or 0808P majors only. Also offered as EDSP687. Credit will be granted for only one of the following: EDSP330, EDSP487, or EDSP687. Formerly EDSP 330. Strategies for communicating and working with families of students with disabilities.

EDSP 488 Selected Topics in Teacher Education (1-3) Prerequisite: major in education or permission of department. Repeatable to 6 credits if content differs.

EDSP 489 Field Experiences in Special Education (1-4) Prerequisite: permission of department. Planned field experience in education-related activities. Credit not to be granted for experiences accrued prior to registration.

EDSP 490 Capstone Seminar in Special Education (3) For EDSP or 0808P majors only. Study of current issues and research concerning the education of students in special education.

EDSP 491 Characteristics of Learning Disabled Students (3) Prerequisite: EDSP470 or permission of department. Diagnosis, etiology, physical, social, and emotional characteristics of learning disabled students.

EDSP 492 Education of Learning Disabled Students (3) Prerequisite: EDSP491 or permission of department. Methods of teaching learning disabled children.

EDSP 494 Internship: Early Childhood Special Education (6-12) For EDSP or 0808P majors only. Student teaching, full-time for twelve weeks, with infants or preschool children with disabilities.

EDSP 495 Internship: Elementary Special Education (6-12) For EDSP or 0808P majors only. Student teaching, full-time for twelve weeks, with elementary age children with disabilities.
EDSP 496 Internship: Middle/Secondary Special Education (6-12) For EDSP or 0808P majors only. Student teaching, full-time for twelve weeks, with middle or high school age students with disabilities.

EDSP 498 Special Problems in Special Education (1-6) Prerequisite: permission of department. Available only to education majors who have definite plans for individual study of approved problems. Credit according to extent of work.

EDSP 499 Workshops, Clinics, and Institutes in Special Education (1-6) Repeatable to 6 credits if content differs. The following type of educational enterprise may be scheduled under this course heading: workshops conducted by the special education department (or developed cooperatively with other departments, colleges and universities) and not otherwise covered in the present course listing. Laboratories, and special education centers; institutes developed around specific topics or problems and intended for designated groups such as school superintendents, principals and supervisors.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program:  EDUC - Education

Course Number:  

Courses in "EDUC-Education"

EDUC - Education

EDUC 275 Students, Learning and Technology (3) One hour of lecture and two hours of laboratory per week. Prerequisite: permission of department. Credit will be granted for only one of the following: EDUC275 or EDUC289A. Formerly EDUC 289A. Explore skills essential to college success: technology fluency and applications, team building, collaboration tools, problem based critical thinking, through MicroWorlds and RoboLab. Investigate and visit professions that interconnect the fields of education and technology.

EDUC 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

EDUC 388 Special Topics in Education (1-3) Prerequisite: permission of department. Repeatable to 6
EDUC 475 Mindtools for Investigation and Education (3) One hour of lecture, one hour of laboratory, and one hour of discussion/recitation per week. Prerequisite: permission of department. Junior standing. Also offered as EDUC698A. Explore educational games, simulations and computer modeling platforms common to many domains from a variety of fields. Focus on design and research issues pertinent to learning through simulations and games.

EDUC 476 Assessment and Design Strategies for Improving Student Learning: (3) Utilizing Data with Technology Tool One hour of lecture, one hour of laboratory, and one hour of discussion/recitation per week. Prerequisite: permission of department. Credit will be granted for only one of the following: EDUC476 or EDUC698V. Formerly EDUC 698V. Explore systemic improvement strategies to curriculum planning, assessment, and instruction through utilizing data and data analysis via technology tools. It is designed to assist educators in identifying and using data that are most effective in assisting improvement of student achievement and system efficacy.

EDUC 477 Assistive Technology for the Classroom Setting (3) One hour of lecture, one hour of laboratory, and one hour of discussion/recitation per week. Prerequisite: permission of department. Junior standing. Credit will be granted for only one of the following: EDUC477 or EDUC498O. Formerly EDUC 498O. Designed to be an introductory survey course for educators in the application of assistive technology in the general classroom setting. Students will be introduced to various assistive technologies and strategies.

EDUC 478 Using Information Technology in Schools (1-3) One hour of lecture, one hour of laboratory, and one hour of discussion/recitation per week. Prerequisite: permission of department. Junior standing. Repeatable to 6 credits if content differs. Not open to students who have completed EDUC498K. Formerly EDUC 498K. Strategies, resources, tools and organizational concepts for using technology to facilitate classroom learning and school administrative functions.

EDUC 498 Selected Topics in Education (1-3) Prerequisite: permission of college. Repeatable to 9 credits if content differs. Current topics and issues in education.

EDUC 499 Honors Thesis (1-6) Prerequisites: admission to college honors program and permission of college. Individual thesis work under supervision of faculty advisors; includes periodic seminar meetings with other honors students engaged in thesis work.

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Select Program: ENAE - Engineering, Aerospace
Course Number: 

Courses in "ENAE-Engineering, Aerospace"

ENAE - Engineering, Aerospace

ENAE 100 The Aerospace Engineering Profession (1) Recommended: ENES100 and MATH140. Overview of salient aspects of professional practice of Aerospace Engineering. Introduction to the range of technical expertise needed to succeed in the profession and the objectives of the various parts of the Aerospace Engineering program at UMCP in supporting students' efforts in gaining the required knowledge and skills. Familiarization with departmental faculty and their areas of research, creation of links with other students, professional society student chapters, and available resources. Discussion of ethical issues, business requirements, and their interactions with technical developments.

ENAE 200 Aerospace Engineering Profession II (1) Prerequisite: permission of department. Recommended: ENAE100. For ENAE majors only. Overview of the engineering profession as it pertains to the
role of the engineer in society, professional practice and ethical standards, career development, opportunities and need for lifelong learning, importance of safety and standards, effective written, visual, and oral communications, and the impact of the engineering profession on global issues.

**ENAE 202 Aerospace Computing (3)** Two hours of lecture and two hours of laboratory per week. Also offered as ENCE202. Credit will be granted for only one of the following: ENAE202 or ENCE202. Introduction to computational tools for the solution of engineering problems. C++ & MATLAB programming including branching and loops, functions, file handling, arrays, and data structures. Students will be introduced to object-oriented programming, basic computing, algorithms, and principles of software engineering.

**ENAE 283 Introduction to Aerospace Systems (3)** Prerequisites: PHYS161, ENES102 and MATH141. Corequisites: PHYS260 and 261, formerly PHYS262. Formerly: ENAE281 and ENAE282. For ENAE majors only. Credit will be granted for only one of the following: ENAE281 and ENAE282 or ENAE283. Introduction to airplanes and space vehicles as aerospace systems. Fundamentals that describe these systems. Elements of aerodynamics, airfoils and wings. Airplane performance, stability and control. Aircraft and rocket propulsion. Fundamentals of orbital motion. Aspects of vehicle conceptual design.

**ENAE 301 Dynamics of Aerospace Systems (3)** Prerequisites: ENAE283, MATH240, MATH246, and PHYS270 and PHYS271 (Formerly: 263)). ENAE majors only or permission of department. Junior standing. Kinematics and dynamics of three dimensional motion of point masses and rigid bodies with introduction to more general systems. Primary emphasis on Newtonian methods. Practice in numerical solutions and computer animation of equations of motion using MATLAB.


**ENAE 324 Aerospace Structures (4)** Prerequisite: ENAE322 or ENAE324. Junior standing. Formerly ENAE 322. Analysis of torsion, beam bending, plate bending, buckling and their application to aerospace.

**ENAE 362 Aerospace Instrumentation and Experimentation (3)** Two hours of lecture and one hour of laboratory per week. Prerequisites: Grades of C or better in PHYS270 and PHYS271 (formerly PHYS263), ENAE283, and MATH246. Corequisites: ENAE380. Junior standing. For ENAE majors only. Basic instrumentation electronics including DC electronics, AC electronics, semiconductors, electro-optics and digital electronics. Sensing devices used to carry out experiments in Aerospace Engineering includes metrology, machine tool measurements, bridge circuits, optical devices, and introduction to computer based data acquisition. Topics chosen to support measurements in aerodynamics, flight structures and flight control.

**ENAE 380 Flight Software Systems (3)** Three hours of lecture and two hours of laboratory per week. Prerequisite: ENAE202 and ENAE283. Junior standing. For ENAE majors only. Avionics using advanced sensor and computing technologies are at the heart of every modern Aerospace vehicle. Advanced software systems to improve cockpit safety and enable unmanned and deep-space missions. Object-oriented programming and software engineering concepts required to design and build complex flight software systems. Software validation, verification and real-time performance analysis to assess flight software system reliability and robustness. Human-machine interface design for piloted systems. Automatic onboard data acquisition and decision-making for unmanned air and space vehicles.

**ENAE 398 Honors Research Project (1-3)**

**ENAE 403 Aircraft Flight Dynamics (3)** Prerequisites: ENAE432 and ENAE414. ENAE majors only or permission of department. Study of motion of aircraft, equations of motion, aerodynamic force representation, longitudinal and lateral motions, response to controls and to atmospheric disturbances, handling qualities criteria and other figures of merit.

**ENAE 404 Space Flight Dynamics (3)** Prerequisite: ENAE301. ENAE majors only or permission of department. Three-dimensional motion under central fields. Solutions to orbital motion, orbital elements, time elements. Kepler’s laws. Orbital maneuvering, rendezvous and station-keeping. Rigid-body attitude dynamics, spacecraft attitude dynamics.


**ENAE 415 Helicopter Theory (3)** Prerequisite: ENAE414. Elementary exposition on the theory and practice of aerodynamics applied to helicopters and other rotary wing aircraft.

**ENAE 423 Vibration and Aeroelasticity (3)** Prerequisite: ENAE324. ENAE majors only or permission of
department. Dynamic response of single and multiple degrees of freedom systems, finite element modeling, wing divergence, aileron reversal, wing and panel flutter.

**ENAE 424 Design and Manufacture of Composite Prototypes (3)** Two hours of lecture and three hours of laboratory per week. Prerequisite: ENES220. Corequisite: ENAE324. Manufacturing practices involving composites. Developing a manufacturing process for a composite component integrating the many aspects including cost, schedule, performance. Student teams provide oral and written reports of the design and manufacture of a composite prototype.

**ENAE 425 Mechanics of Composite Structures (3)** Prerequisite: MATH246. Corequisite: ENAE324. Introduction to structures composed of composite materials and their applications in aerospace. In particular, filamentary composite materials are studied. Material types and fabrication techniques, material properties, micromechanics, anisotropic elasticity, introduction to failure concepts.

**ENAE 432 Control of Aerospace Systems (3)** Prerequisite: grade of C or better in ENAE283 and ENAE301. Junior standing. Formerly ENAE 332. An introduction to the feedback control of dynamic systems. Laplace transforms and transfer function techniques; frequency response and Bode diagrams. Stability analysis via root locus and Nyquist techniques. Performance specifications in time and frequency domains, and design of compensation strategies to meet performance goals.

**ENAE 441 Space Navigation and Guidance (3)** Prerequisites: ENAE432 and ENAE404. ENAE majors only or permission of department. Principles of navigation. Celestial, radio, and inertial navigation schemes. Navigational and guidance requirements for orbital, planetary, and atmospheric entry missions. Fundamentals of communications and information theory. Link budgets, antennas and telemetry systems.

**ENAE 455 Aircraft Propulsion and Power (3)** Prerequisite: ENAE311, ENAE414 and ENME232. ENAE majors only or permission of department. Thermodynamic cycle analysis, aerothermochemistry of fuels and propellants, operating principles of piston, turbojet, fanjet, and other variations of airbreathing aircraft power units.

**ENAE 457 Space Propulsion and Power (3)** Prerequisites: ENAE311, ENME232 and (PHYS270 and 271 {Formerly: PHYS263}). ENAE majors only or permission of department. Senior standing. Thermodynamic cycle analysis, aerothermochemistry of fuels and propellants, operating principles of rocket, ion, and other exoatmospheric power units.

**ENAE 464 Aerospace Engineering Laboratory (3)** Two hours of lecture and three hours of laboratory per week. Prerequisites: ENAE311; ENAE324; ENAE432; and ENAE362. ENAE majors only or permission of department. Application of fundamental measuring techniques to measurements in aerospace engineering. Includes experiments in aerodynamics, structures, propulsion, flight dynamics and astrodynamics. Correlation of theory with experimental results.

**ENAE 471 Aircraft Flight Testing (3)** Prerequisite: ENAE414; Corequisite: ENAE403. For ENAE majors only. Provides basic instruction to aircraft flight testing and demonstrates need for systematic, well-proven technique to allow for accurate airplane performance. Concepts of aerodynamics, airplane performance, and stability and control. Emphasis on single-engine general aviation type aircraft.

**ENAE 481 Principles of Aircraft Design (3)** Prerequisites: ENAE324, ENAE362 and ENAE432. Corequisite: ENAE414. ENAE majors only or permission of department. Aircraft design principles blending both synthesis and analysis. The iterative nature of the design process. Applied aerodynamics. Elements of aircraft performance calculation and optimization. Design of aircraft including payload, crew and avionics provisions, propulsion selection and sizing, aerodynamic configuration optimization, mass properties, stability and control characteristics, and vehicle subsystems. Individual student projects in aircraft design.

**ENAE 482 Aeronautical Systems Design (3)** Two hours of lecture and three hours of laboratory per week. Prerequisites: ENAE403; ENAE423; ENAE455; and ENAE481. Senior standing. For ENAE majors only. Senior capstone design course in the aeronautics track. Introduction of computerized methods for sizing and performance analysis. More comprehensive methods to predict weight, aerodynamics and propulsion system characteristics. Consideration in design disciplines such as vulnerability, maintainability, produceability, etc. Groups of students will complete, brief and report on a major design study to specific requirements.

**ENAE 483 Principles of Space Systems Design (3)** Prerequisites: ENAE324; ENAE432; ENAE362; and ENAE404. ENAE majors only or permission of department. Principles of space systems analysis and vehicle design. Launch vehicle performance analysis and optimization. Design of vehicle systems including avionics, power, propulsion, life support, human factors, structures, actuator and mechanisms, and thermal control. Design processes and design synthesis. Individual student projects in vehicle design.

**ENAE 484 Space Systems Design (3)** Three hours of lecture and six hours of discussion/recitation per week. Prerequisites: ENAE432; ENAE441; ENAE457; and ENAE483. For ENAE majors only. Senior capstone design course in the space track. Group preliminary design of a space system, including system and subsystem design, configuration control, costing, risk analysis, and programmatic development. Course also emphasizes written and oral engineering communications.
ENAE 488 Topics in Aerospace Engineering (1-4) Technical elective taken with the permission of the student's advisor and instructor. Lecture and conference courses designed to extend the student's understanding of aerospace engineering. Current topics are emphasized.

ENAE 499 Elective Research (1-3) Prerequisites: senior standing in ENAE major and permission of department, instructor, and student's advisor. Repeatable to 6 credits. Original research projects terminating in a written report.

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Use the search box below to view the approved courses.

Select Program: ENBE - Biological Resources Engineering

Course Number: ________________

Search

Courses in "ENBE-Biological Resources Engineering"

ENBE - Biological Resources Engineering

ENBE 100 Basic Biological Resources Engineering Technology (3) For non-engineering majors. Formerly ENAG 100. An introduction to the applications of engineering concepts to biology, agriculture, and environment. Topics include quantification measurements, mechanical, thermal, fluid, and electrical principles.

ENBE 110 Introduction to Biological Resources Engineering (1) One hour of lecture and one hour of laboratory per week. Biological engineering applications, including aquaculture, bioinstrumentation, biomedicine, biotechnology, environment, food, and plant growth. Simple laboratory experiments will illustrate important techniques used by biological engineers.
ENBE 120 Predictive Biology (2) Three hours of lecture per week. Freshman standing. Survey of biological and engineering sciences applied to biology and medicine.

ENBE 200 Fundamentals of Agricultural Mechanics (3) Two hours of lecture and four hours of laboratory per week. Formerly ENAG 200. Study of hand tools and power shop equipment as they relate to mechanized agriculture, in tool fitting, plumbing, wood and metal working, welding, brazing, soldering, hot and cold sheet metal, electricity, construction and building materials, sketching, drawing and using plans for construction. Emphasis is upon the development of orderly and safe shop procedures.

ENBE 234 Principles of Erosion and Water Control (1) Introduction to principles of estimating runoff and erosion. Engineering principles necessary to control erosion and runoff from agricultural areas. For non-engineering students.


ENBE 237 Design of Irrigation Systems (1) Principles and practices of agricultural irrigation, including types of irrigation systems, soil water concepts, computing evapotranspiration, irrigation scheduling and design of a sprinkler irrigation system. For non-engineering students.

ENBE 241 Computer Use in Bioresources Engineering (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: permission of department. Application of computer technology to biological and natural resource systems considering engineering aspects. Designed to help students in the use of computer technology for problem solving. The course will cover 4-5 software packages important for later use by the student.

ENBE 381 Creative Design with CAD (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ENES102, ENES220, and PHYS161; or equivalent. Formerly ENBE481. Engineering design using computer aided design (CAD) techniques applicable to Biological Resources Engineering applications.

ENBE 388 Honors Thesis Research (3-6) Prerequisite: admission to AGNR or ENGR honors program. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an ENBE faculty member in partial fulfillment of the requirements of the College of AGNR or ENGR Honors Program. The thesis will be defended to a faculty committee.

ENBE 414 Mechanics of Food Processing (4) Prerequisite: PHYS121. Formerly ENAG 414. Three lectures and one laboratory per week. Applications in the processing and preservation of foods, of power transmission, hydraulics, electricity, thermodynamics, refrigeration, instruments and controls, materials handling and time and motion analysis.

ENBE 415 Bioengineering of Exercise Response (3) Prerequisite: MATH246 or permission of department. Exercise physiology in quantitative terms. Modeling and prediction of cardiovascular, respiratory, thermoregulatory, biomechanical, and metabolic aspects of human exercise responses.

ENBE 422 Water Resources Engineering (3) Prerequisite: ENME342 or ENCE330; or permission of department. Formerly INAG 422. Applications of engineering and soil sciences in erosion control, drainage, irrigation and watershed management. Principles of agricultural hydrology and design of water control and conveyance systems.

ENBE 435 Aquacultural Engineering (3) Prerequisite: algebra, ability to read and interpolate graphical material and one semester each of college physics and college chemistry; and permission of department. Formerly ENAG 435. The course will explore the natural aquatic environment and how aquatic organisms are effected by this environment. The course will then explore ways to modify aquatic environments, especially in recirculating systems, and will explore ways to increase production of fish with less water usage. Components of recirculating systems including water filtration, pumps, aerators, level and flow meters, and other system components will be described and their operating principals explored.

ENBE 451 Water Quality: Field and Lab Analysis Methods (3) Two hours of lecture and three hours of laboratory per week. Prerequisites: CHEM103 and (CHEM104 or CHEM113). Also offered as NRMT451. Credit will be granted for only one of the following: ENBE451 or NRMT451. Hands-on experience with techniques for assessing physical, chemical, and biological characteristics of surface waters, including streams, lakes, and wetlands. Emphasis is placed on understanding effects of water quality on ecosystem structure and function.

ENBE 453 Introduction to Biological Materials (3) Prerequisite: ENES220 or equivalent. Basic engineering properties of biological materials, including animal tissues and agricultural products, and of traditional engineering materials such as metals, ceramics, alloys, and polymers. Course includes limited laboratory experiences.

ENBE 454 Biological Process Engineering (4) Prerequisites: MATH246; and ENME331 or ENCE305 or equivalent; and one semester of life sciences, or permission of department. Also offered as ENBE603. Credit
will be granted for only one of the following: ENBE454 or ENBE603. Formerly ENAG 454. Fluid flow, heat transfer, and mass transfer with applications in medicine, environment, biotechnology, food, agriculture, and other biosystems. Design of solutions to current problems in biological engineering is emphasized.

**ENBE 455 Basic Electronic Design (3)** Two hours of lecture and two hours of laboratory per week. Prerequisites: PHYS142 or equivalent, MATH246, and ENBE241. Familiarization with basic electronic circuits and the ability to produce simple electronic designs.

**ENBE 456 Biomedical Instrumentation (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: ENBE455, one course in human physiology, or permission of department. Study of biomedical instrumentation and biomedical equipment technology. How biomedical equipment is used to measure information from the human body. Hands-on experience with representative biomedical equipment.

**ENBE 462 Nonpoint Source Pollution Assessment Techniques (3)** Prerequisite: one course in hydrology or permission of department. Various techniques to identify and measure nonpoint source pollution. Primary focus is on agriculture and water.

**ENBE 471 Biological Systems Control (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: ENBE455, one course in biological sciences or permission of department. Principles of control systems designed by biological engineers and analysis of control mechanisms found in biological organisms. Apparent control strategies used by biological systems will be covered.

**ENBE 481 Creative Design with CAD/CAM (3)** Two hours of lecture and two hours of laboratory per week. Formerly ENAG 481. Computer aided design (CAD) techniques applicable to a wide range of engineering applications.

**ENBE 482 Dynamics of Biological Systems (1)** Prerequisite: ENBE454 or equivalent. Force-acceleration, work energy, and impulse-momentum relationships important for biological systems and whole-body organisms.

**ENBE 484 Engineering in Biology (3)** Two hours of lecture and one hour of laboratory per week. Prerequisite: MATH221 or MATH141; and PHYS141 or PHYS161; and CHEM103 or higher; or permission of department. Recommended: ENBE454. Engineering with biological systems, with emphasis on utilization, design, and modeling. Should be taken by all who are interested in learning about products or processes involving living things.

**ENBE 485 Capstone Design I (1)** One hour of lecture per week. Prerequisite: ENBE454, ENBE455, and permission of department. Senior standing. For ENBE majors only. To complete the curriculum of an undergraduate engineer, design procedures and professional concerns will be presented. Students will begin planning and designing their capstone projects. CORE capstone credit for ENBE485 and ENBE486 will not be awarded until satisfactory completion of ENBE486.

**ENBE 486 Capstone Design II (2)** Two hours of lecture per week. Prerequisite: ENBE485 taken in the immediately preceding semester. Senior standing. For ENBE majors only. To complete the curriculum of an undergraduate engineer, design procedures and professional concerns will be presented. A complete, comprehensive, and professional design project will be realized by the student. CORE Capstone credit for ENBE485 and ENBE486 will not be awarded until satisfactory completion of ENBE486.

**ENBE 488 Special Topics in Biological Engineering (1-4)** Prerequisite: permission of department. Lecture and conference courses designed to extend the student's understanding of biological resources engineering. Current topics are emphasized.

**ENBE 489 Special Problems in Biological Engineering (1-3)** Prerequisite: permission of department. Student will select an engineering problem and prepare a technical report. The problem may include design, experimentation, and/or data analysis.

**ENBE 499 Special Problems in Agricultural Engineering Technology (1-3)** Prerequisite: permission of department. Formerly ENAG 499. Not acceptable for majors in agricultural engineering. Problems assigned in proportion to credit.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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<td>500-599</td>
<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
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<td>Course restricted to graduate students</td>
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<td>799</td>
<td>Master Thesis credit</td>
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<tr>
<td>899</td>
<td>Doctoral Dissertation credit</td>
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Use the search box below to view the approved courses.

Select Program: ENCE - Engineering, Civil

Course Number: 

Search

Courses in "ENCE-Engineering, Civil"

ENCE - Engineering, Civil

ENCE 100 Introduction to Civil and Environmental Engineering (1) An introduction to, and an overview of, Civil and Environment Engineering. It will introduce students to the undergraduate curriculum and also exposes them to students and graduates who are at various points in their CEE careers. The course blends panel presentations by seniors and graduate students, faculty and practitioners with a project and book review to be performed by the students.

ENCE 200 Engineering Information Processing I (3) Prerequisites: MATH141, ENES100, ENES102 and permission of department. Credit will be granted for only one of the following: ENCE200 or ENCE202. Formerly ENCE 202. Spreadsheet, computational and symbolic processing packages are introduced in the context of solving engineering problems, including systems of linear equations. Computer architecture, networks,
BOOLEAN algebra, databases and introductory programming skills.

ENCE 201 Engineering Information Processing II (3) Prerequisite: ENCE200 and permission of department. Credit will be granted for only one of the following: ENCE201 or ENCE203. Matrix algebra and numerical computing. Includes computing accuracy, solutions of systems of linear equations, root-finding, function approximation, and numerical integration. Additional computing material including data types and structures, object-based programming, event-based programming, and client-server computing. Numerical and computing techniques are taught in the context of solving engineering problems.

ENCE 215 Applied Engineering Sciences (3) Prerequisite: CHEM135 and permission of department. Examination of fundamental and applied aspects of chemistry, biology, and geochemistry. Fundamental principles will be coupled with analytical and computational skills essential for addressing crucial processes on human impact on the environment and urban infrastructure. Applications to the development of new materials and technologies will be covered in case studies. Students should come out with an appreciation of how understanding the fundamental concepts could facilitate the development of technologies to mitigate human impact on the environment.

ENCE 300 Fundamentals of Engineering Materials (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ENES220 and permission of department. Behavior, physical, mechanical and chemical properties, design and performance of civil engineering materials, including aggregates, cement, concrete, asphalt binders and mixtures, plastics and geosynthetics, timber, metals and alloys. Modified and advanced highway materials (polymer and rubber modified mixtures, high performance concrete, composites, smart materials). Laboratory testing with hands-on experience on aggregates, Portland cement concrete, asphalt mixtures, timber and metals as per SUPERAVE, ACI design methods, and ASTM standards and specifications.

ENCE 301 Geo-Metrics and GIS in Civil Engineering (3) Prerequisites: ENCE200, ENCE201 and permission of department. The purpose is to have students develop skills in using GIS technology to solve a range of problems in Civil and Environmental Engineering. It begins with a rigorous unit on the basics of database organization and emphasizing the linkage between a standard relational database and the spatially-referenced database underlying the GIS. Both raster and vector data models are presented and used in a variety of natural applications to Civil and Environmental Engineering. Students are also exposed to scripting which aids in the development of more elaborate analyses and reinforces object-oriented programming concepts learned in ENCE 200 and ENCE 201.

ENCE 302 Probability and Statistics for Civil and Environmental Engineers (3) Prerequisites: ENCE201, MATH246, and permission of department. Statistics is the science of data. Civil Engineers must often make decisions based on incomplete, variable or uncertain information. In addition, modern methods of design and analysis need to account for variability in natural, engineered and human systems. After successful completion of this class, a student should have facility and familiarity with established basic techniques for managing data, modeling variability and uncertainty, communicating about data and decisions, and supporting or defending a decision or judgement based on uncertain or incomplete data.

ENCE 305 Fundamentals of Engineering Fluids (3) Prerequisites: ENES220, (PHYS260 and PHYS261) and permission of department. Credit will be granted for only one of the following: ENCE305 or ENCE330. Formerly ENCE 330. The theoretical bases for fluid statics and dynamics, including the conversation of mass, energy and momentum. Modeling of hydraulic systems are introduced. Emphasis on pipe flow and open-channel hydraulics, with real-world applications.

ENCE 310 Introduction to Environmental Engineering (3) Prerequisites: ENCE215, PHYS260 (Formerly: PHYS262) and permission of department. Introduction to the physical, chemical and biological systems relating to the quality of water, land and air environments. Fundamental principles will be emphasized, current environmental pollution problems will be examined and methods of pollution abatement discussed.

ENCE 320 Introduction to Project Management (3) Five hours of lecture per week. Prerequisite: permission of department. A course designed to expose students to the techniques of engineering project management and to develop analytical skills necessary on the management side of engineering projects. Topics include economic analysis, project screening and selection, organizational and project structure, scheduling, budgeting, resource management, life cycle costing, and project control.

ENCE 340 Fundamentals of Geotechnical Engineering (3) Prerequisite: ENES220 and permission of department. Introductory study of soils in civil engineering. Soil origin, phase relationships and classification schemes. Soil hydraulics: capillary, effective stress, permeability and seepage considerations. Basic stress distribution theories and soil consolidation-settlement analysis. Integration of shear strength evaluation with slope stability analysis. If time permits, topics such as applications in geoenvironmental engineering will be covered.


ENCE 360 Analysis of Civil Engineering Systems (3) Prerequisites: ENCE201, MATH140 and permission...
ENCE 370 Introduction to Transportation Engineering and Planning (3) Prerequisites: ENCE201, (PHYS260 and PHYS261 (Formerly: PHYS262)) and permission of department. Engineering problems of transportation by highways, airways, pipelines, waterways, and railways. Transportation modes and technologies, vehicle dynamics, basic facility design, traffic stream models, capacity analysis, transportation planning, evaluation and choice, and network analysis.

ENCE 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student’s internship sponsor. Junior standing.

ENCE 398 Honors Research Project (1-3)

ENCE 402 Simulation and Design of Experiments for Engineers (3) Prerequisites: ENCE302 and permission of department. Review of statistics and hypothesis testing, sample design and design of experiments, generation of discrete and continuous distributions and their applications. Introduction of simulation languages and simulation of discrete and continuous engineering systems. Output analysis, model validation and sensitivity and reliability analysis.

ENCE 411 Environmental Engineering Science (3) Two hours of lecture and four hours of laboratory per week. Prerequisites: ENCE310 and permission of department. The basic physical, chemical and biological processes that occur in engineered and natural environmental systems will be discussed. Included will be presentation of the parameters used to describe the quality of water, air and land. Measurement techniques will be discussed. A weekly lab will provide hands-on experience with environmental quality measurements and treatment techniques.

ENCE 412 Environmental Engineering Unit Operations (3) Prerequisites: ENCE305, ENCE310 and permission of department. Examination of unit operations and processes encountered in environmental engineering field. Fundamental principles learned from previous classes will be applied into the design and operation of unit operations and processes, particularly in the area of water and wastewater treatment. Similar processes will be applied to air pollution control, solid waste disposal and hazardous waste treatment.

ENCE 420 Construction Equipment and Methods (3) Prerequisite: ENCE320 or equivalent; and permission of department. Senior standing. Evaluation and selection of equipment and methods for construction of projects, including earthmoving, paving, steel and concrete construction, formwork, trenching, cofferdams, rock excavation, tunneling, site preparation and organization. Design of formwork, trench supports, and cofferdams.

ENCE 421 Legal Aspects of Engineering Practice (3) Prerequisites: ENCE320 or equivalent; and permission of department. Study legal principles relevant to engineering design and construction contracts. Specific subjects covered include engineering design and construction contracts, torts, agency, professional liability, labor laws, insurance, expert testimony, mediation and arbitration, intellectual property, patents and copyrights, sureties and ethics. Study principles of ethical and professional conduct of engineers. Gaining familiarity with the basic structure of the US legal system as it relates to legal obligations and responsibilities of engineers.

ENCE 422 Project Cost Accounting and Economics (3) Prerequisites: ENCE201, ENCE320 or equivalent; and permission of department. Effective project managers have complete command of their project costs. Reviews the fundamentals of accounting; examines project cost accounting principles, applications, and impact on profitability; examines the principles of activity based costing; covers the elements involved in cash management; introduces the framework for project performance measurement, net present value, depreciation, taxes, and earned value analysis.

ENCE 423 Project Planning, Scheduling and Control (3) Prerequisites: ENCE302, ENCE320 or equivalent; and permission of department. Students will learn the basics of project planning and scope development; developing implementation plans; creating work breakdown structures; scheduling fundamentals and the different methods of scheduling; when to schedule, why network schedules and the network diagram; scheduling calculations and the critical path; managing project risk; and the fundamentals of project control including basic control theory and how to control project cost, schedule and resources.

ENCE 425 Decision Analysis for Engineering (3) Prerequisites: ENCE302, MATH141 or equivalent; and permission of department. Probability basics, subjective probability, using data, introduction to decision analysis, elements of decision problems, structuring decisions, making choices, sensitivity analysis, creativity and decision-making, Monte Carlo simulation, value of information, risk-based decision making and multi-criteria ranking.

ENCE 431 Hydrologic Engineering (3) Prerequisites: ENCE305 and permission of department. An introduction to basic principles of hydrologic science including the hydrologic cycle, rainfall, surface runoff and
streamflow. Special emphasis is placed on hydrologic engineering design of stormwater management and flood control facilities. Design projects are used to illustrate design practices.

**ENCE 432 Ground Water Hydrology (3)** Prerequisites: ENCE 305 and permission of department. Concepts related to the development of the ground water resources, hydrology, hydrodynamics of flow through porous media, hydraulics of wells and basin-wide ground water development. Fundamentals of ground water pollution are introduced.

**ENCE 441 Foundation Design (3)** Prerequisites: ENCE 340 and permission of department. Critical review of classical lateral earth pressure theories, analysis of retaining walls and reinforced earth walls, subsurface explorations, bearing capacity and settlement of shallow foundations, design of deep foundations that includes both pile foundations and drilled shafts.

**ENCE 444 Laboratory Characterization of Geomaterials (3)** One hour of lecture and four hours of laboratory per week. Prerequisites: ENCE 340 and permission of department. Review of major soil tests and their interpretation for engineering purposes. Engineering classification tests (Atterberg limits and grain size distribution), permeability, in-situ and lab density-moisture test, soil strength (CBR, unconfined compression, direct shear test and triaxial) and compressibility characteristics.

**ENCE 447 Pavement Engineering (3)** Prerequisites: ENCE 340 and permission of department. Fundamental principles underlying the design, construction, maintenance and repair, and management of highway and airfield pavement systems. Pavement performance (functional/structural; evaluation); pavement mechanics (multi-layered elastic theory; slab theory); pavement materials (properties and characterization); environmental effects; current rigid and flexible design methods (new/rehabilitation); construction (new construction; maintenance/repair; rehabilitation); economic evaluation; pavement management.


**ENCE 454 Design of Concrete Structures (3)** Prerequisites: ENCE 353, ENCE 355, and permission of department. Formerly ENCE 451. Combined bending and compression, development and anchorage of reinforcement, deflections, design of slabs including one-way and two-way, design of footings, retaining walls, introduction to prestressed concrete, design of multi-story buildings.

**ENCE 455 Design of Steel Structures (3)** Prerequisites: ENCE 353, ENCE 355, and permission of department. Behavior and design of members subjected to fatigue, and combined bending and compression; plate girders, composite beams, open-web joists and connections. Methods of allowable stress design, and load and resistance factor design. Elements of plastic analysis and design. Framing systems and loads for industrial buildings and bridges.

**ENCE 456 Intermediate Strength of Materials (3)** Prerequisites: ENCE 353 and permission of department. Credit will be granted for only one of the following: ENCE 410 or ENCE 456. The small deflection engineering theory of long, straight beams with arbitrary but compact cross-sections. Beam bending and extension via the Bernoulli-Euler approximation. Beam torsion from the theory of elasticity and the membrane analogy. Beam shearing stresses.

**ENCE 466 Design of Civil Engineering Systems (3)** Must be taken in the semester in which the student graduates. Prerequisite: permission of department. Senior standing. A major civil engineering design experience that emphasizes development of student creativity, development and use of design methodologies, evaluation of alternate solutions, feasibility considerations, and detailed system descriptions. Realistic design constraints including economic factors, safety, aesthetics, and reliability will be imposed. Students will work in design project groups and be required to exercise oral and written communication skills.

**ENCE 470 Highway Engineering (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: ENCE 302, ENCE 370 and permission of department. Highway location and design, highway engineering economics, traffic engineering, traffic measurement devices and technologies. Includes discussion of technological advances in traffic flow and capacity, such as signal systems, corridor control, automatic driver information, incident detection and autonomous vehicle operation.

**ENCE 472 Transportation Engineering (3)** Prerequisite: ENCE 302, ENCE 370 and permission of department. Transportation engineering concepts including transportation systems analysis, airport systems, airline and airport operations, marine transportation and urban public transportation systems.

**ENCE 488 Senior Thesis (3)** Prerequisite: permission of department. Senior standing. Advanced study in civil engineering problems with special emphasis on mathematical modeling and experimental methods.
ENCE 489 Special Problems in Civil Engineering (1-4) Prerequisite: permission of department. Senior standing. A course arranged to meet the needs of exceptionally well prepared students for study in a particular field of civil engineering.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: ENCH - Engineering, Chemical

Course Number: 

Search

Courses in "ENCH-Engineering, Chemical"

ENCH - Engineering, Chemical

ENCH 215 Chemical Engineering Analysis (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: CHEM133 or CHEM113. Pre- or corequisite: MATH141. Introduction to methods of chemical engineering calculations and analysis. Stoichiometric relations, material and energy balances, and behavior of gases, vapors, liquids and solids. Analytical and computer methods.

ENCH 250 Computer Methods in Chemical Engineering (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: ENES100; and ENCH215. Corequisite: MATH246. Algorithm development and application of software to the analysis of chemical engineering problems. File management and editing, graphics and numerical methods. Use of spreadsheets, statistics/math software and process simulators for the design of chemical process equipment.
ENCH 300 Chemical Process Thermodynamics (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: CHEM241 and ENCH215. Corequisite: MATH241 and ENCH250. Principles of thermodynamics and their application to engineering problems. First and second laws of thermodynamics, properties of gases, liquids and solids, phase equilibrium, flow and non-flow systems, energy conversion, production of work from heat, thermodynamic analysis of processes, equilibrium stage operations and the thermodynamics of chemically reacting systems.

ENCH 333 Chemical Engineering Seminar (1) Junior standing. Oral and written reports on recent developments in chemical engineering and the process industries.

ENCH 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

ENCH 400 Chemical Engineering Thermodynamics (3) Prerequisite: PHYS260 and 261 (Formerly: PHYS262), ENCH250 and ENCH300. Contemporary trends in chemical engineering thermodynamics that bridge the gap between fundamentals and applications. Thermodynamic analysis of non-ideal and structured systems; such as complex fluids, strongly fluctuating and nanoscale systems, dissipative systems, biosystems, and systems under extreme conditions.

ENCH 422 Transport Processes I (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: ENCH215 and ENCH250. Pre- or corequisites: MATH241 and MATH246. Principles of fluid dynamics as applied to model development and process design. Mass, momentum and energy conservation. Statics and surface tension. Equation of Continuity and Navier-Stokes Equation with application to laminar flow. Dimensional analysis. Macroscopic balances, Bernoulli Equation and friction factors with application to turbulent flow.

ENCH 424 Transport Processes II (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: ENCH300 and ENCH422. Principles of mass and heat transfer as applied to model development and process design. Species continuity equation with application to diffusion, and convection in laminar flow. Macroscopic balances and mass transfer coefficients with application to turbulent flow. Microscopic equation of energy with application to heat conduction, and convection in laminar flow. Macroscopic energy balance and heat transfer coefficients with application to turbulent flow. Heat exchanger design.

ENCH 426 Transport Processes III (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: ENCH300. Separation by staged operations. Rate dependent separation processes. Design applications in distillation, gas absorption, liquid extraction, drying, adsorption and ion exchange.

ENCH 437 Chemical Engineering Laboratory (3) Six hours of laboratory per week. Prerequisites: ENCH424; ENCH426; ENCH440; and ENCH442. Application of chemical engineering process and unit operation principles in small-scale semi-commercial equipment. Data from experimental observations are used to evaluate performance and efficiency of operations. Emphasis on correct presentation of results in report form.

ENCH 440 Chemical Engineering Thermodynamics (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: ENCH400; and ENCH422. Fundamentals of chemical reaction kinetics and their application to the design and operation of chemical reactors. Reaction rate theory, homogeneous reactions and catalysis electrochemical reactions. Catalytic reactor design.

ENCH 442 Chemical Engineering Systems Analysis (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: ENCH300; and ENCH422. Corequisite: ENCH440. Dynamic response applied to process systems. Goals and modes of control, Laplace transformations, analysis and synthesis of simple control systems, closed loop response, dynamic testing.

ENCH 444 Process Engineering Economics and Design I (3) Prerequisites: ENCH424; ENCH426 and ENCH440. Principles of chemical engineering economics and process design. Emphasis on equipment types, equipment design principles, capital cost estimation, operating costs, and profitability.

ENCH 446 Process Engineering Economics and Design II (3) Prerequisite: ENCH444. Application of chemical engineering principles for the design of chemical processing equipment. Typical problems in the design of chemical plants.


ENCH 454 Chemical Process Analysis and Optimization (3) Prerequisites: MATH246; ENCH426 and ENCH440. Applications of mathematical models to the analysis and optimization of chemical processes. Models based on transport, chemical kinetics and other chemical engineering principles will be employed. Emphasis on evaluation of process alternatives.
ENCH 455 Model Predictive Control (3) One hour of lecture and six hours of laboratory per week. Prerequisite: ENCH422. Credit will be granted for only one of the following: ENCH455 or ENCH468Z. Formerly ENCH 468Z. Empirical model identification from process data. Step and impulse response models. Linearization of nonlinear first principles models. Single variable Model Predictive Control. Robustness with respect to modeling error. MPC based tuning of PID controllers. Feedforward control. Multi-input multi-output processes. Multi-loop decentralized control. Centralized multivariable Model Predictive Control via on-line optimization.

ENCH 456 Plantwide Process Control (3) Prerequisite: ENCH442. Credit will be granted for only one of the following: ENCH442 or ENCH468L. Formerly ENCH 468L. An introduction to the problem of designing plantwide control system architectures. Steady state gain calculation, singular value decomposition, relative gain array, niederlinski index, cascade control, averaging level control loop tuning, dynamic simulation, model based control. The Tennessee Eastman challenge problem is used throughout the course to illustrate the methods discussed.

ENCH 468 Research (1-3) Prerequisite: permission of both department and instructor. Repeatable to 6 credits. Investigation of a research project under the direction of a faculty member. Comprehensive reports are required.

ENCH 470 The Science and Technology of Colloidal Systems (3) Prerequisites: ENCH400; ENCH424; ENCH426; and CHEM482. Credit will be granted for only one of the following: ENCH468C or ENCH470. Formerly ENCH 468C. Introduction to colloidal systems. Preparation, stability and coagulation kinetics of colloidal suspensions. Introduction to DLVO theory, electrokinetic phenomena, rheology of dispersions, surface/interfacial tension, solute absorption at gas-liquid, liquid-liquid, liquid-solid and gas-solid interfaces and properties of micelles and other microstructures.

ENCH 471 Particle Science and Technology (3) Credit will be granted for only one of the following: ENCH468I or ENCH471. Formerly ENCH 468I. Theory and modeling techniques for particle formation and particle size distribution dynamics. Science and technology of multiphase systems, powder and aerosol technology. Industrial, environmental and occupational applications: dry powder delivery of drugs, aerosol generation methods, nanoparticles, biowarfare agent detection, dry powder mixing, particulate emissions. Design particle synthesis and processing systems, particle removal systems.

ENCH 472 Control of Air Pollution (3) Credit will be granted for only one of the following: ENCH468D or ENCH472. Formerly ENCH 468D. Effects and sources of air pollutants, legislation and regulatory trends; meteorology, atmospheric dispersion models; distribution functions, particle size distributions; particulate control.

ENCH 475 Ethics in Science and Engineering (3) Senior standing. Credit will be granted for only one of the following: ENCH468E or ENCH475. Formerly ENCH 468E. Ethical issues in science and engineering and their resolutions. Scientific truth: proper data analysis, proper data presentation, and record-keeping. Human aspects: attribution, confidentiality, conflict of interests, mentoring and inclusion of underrepresented groups. Societal aspects: funding priorities, moral issues, responsibilities of engineers to clients, ecological issues, and human and animal subjects. Class meetings are organized around discussions, case studies, and student reports.

ENCH 476 Statistics and Experiment Design (3) Credit will be granted for only one of the following: ENCH468G or ENCH476. Formerly ENCH 468G. Intelligent design of experiments and statistical analysis of data. Probability, probability distribution, error analysis; data collection, sampling, graphing; variance, significant tests. Cluster analysis and pattern recognition. Factorial design, combinatorial methods.

ENCH 482 Biochemical Engineering (3) Prerequisite: ENCH440. Introduction to biochemical and microbiological applications to commercial and engineering processes, including industrial fermentation, enzymology, ultrafiltration, food and pharmaceutical processing and resulting waste treatment. Enzyme kinetics, cell growth, energetics and mass transfer.

ENCH 483 Bioseparations (3) Credit will be granted for only one of the following: ENCH483 or ENCH468A. Formerly ENCH 468A. Engineering fundamentals of separations and purification of biological molecules. Case studies and examples illustrate principles and practice of centrifugation, precipitation, crystallization, filtration, membrane separations, chromatography, and affinity separation of recombinant proteins and other biomolecules. Process scale-up and economics of biotechnology products and processes.

ENCH 484 Environmental Biochemical Engineering (3) Credit will be granted for only one of the following: ENCH468B or ENCH484. Formerly ENCH 468B. Interdisciplinary solutions to complex environmental contamination problems; basic biological and biochemical engineering principles as applied to bioremediation. Transport of contaminants in various environments, aerobic and anaerobic biodegradation, ex situ and in situ bioremediation reactor design, reaction kinetics, process optimization, and modeling. Current regulatory issues governing the use of bioremediation processes.

ENCH 485 Biochemical Engineering Laboratory (3) Six hours of laboratory per week. Prerequisite: ENCH482. Techniques of measuring pertinent parameters in fermentation reactors, quantification of production variables for primary and secondary metabolites such as enzymes and antibiotics, the insolubilization of enzymes for reactors, and the demonstration of separation techniques such as
ultrafiltration and affinity chromatography.

**ENCH 490 Introduction to Polymer Science (3)** Prerequisites: ENCH424 and ENCH440. Also offered as ENMA495. Credit will be granted for only one of the following: ENCH490 or ENMA495. The elements of the chemistry, physics, processing methods, and engineering applications of polymers.

**ENCH 495 Manufacturing with Polymers (3)** Prerequisite: ENES230. Credit will be granted for only one of the following: ENCH468M or ENCH495. Formerly ENCH 468M. Introduction to issues associated with the use, manufacturing and processing of polymers; blending of materials, design and production of a polymer formulation, characterization of material properties. Teams work on an open-ended design problem of producing and characterizing a polymer formulation for advanced materials use.

**ENCH 496 Processing of Polymer Materials (3)** Prerequisite: ENCH424. Also offered as ENMA496. Credit will be granted for only one of the following: ENCH496 or ENMA496. A comprehensive analysis of the operations carried out on polymeric materials to increase their utility. Conversion operations such as molding, extrusion, blending, film forming, and calendaring. Development of engineering skills required to practice in the high polymer industry.

**ENCH 497 Recycling of Waste Material (3)** Prerequisites: ENCH424 and ENCH426. Credit will be granted for only one of the following: ENCH468R or ENCH497. Formerly ENCH 468R. Introduction of municipal and industrial waste recycling technology. Unit operations and governing mathematical models for predicting equipment performance. Role of engineers in the recycling industry.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: ENCO - Engineering, Cooperative Education

Course Number: Search

Courses in "ENCO-Engineering, Cooperative Education"

**ENCO - Engineering, Cooperative Education**

**ENCO 098 Co-op/Internship Work Experience** Programs are open to undergraduate and graduate students in all majors in the School of Engineering. Undergraduate students must have a 2.0 GPA to participate and graduate students a 3.0 GPA. Prerequisite: permission of department. Participation in a cooperative education (co-op) or internship program enables students to apply the theories that they have learned in their traditional classes with paid, supervised, career-related work experience that develops technical and professional work skills. Contact the Engineering Co-op & Career Services Office.

**ENCO 099 Co-Op/Intern Work Experience** Programs are open to undergraduate and graduate students in all majors in the School of Engineering. Undergraduate students must have a 2.0 GPA to participate and graduate students a 3.0 GPA. Prerequisite: permission of department. Participation in a cooperative education...
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Select Program: ENEE - Electrical & Computer Engineering

Course Number: 

Courses in "ENEE-Electrical & Computer Engineering"

ENEE - Electrical & Computer Engineering

ENEE 114 Programming Concepts for Engineering (4) Three hours of lecture and two hours of discussion/recitation per week. Prerequisite: ENES100. For ENEE majors (09090) only. Restricted to students with 60 or less cumulative semester hours. Principles of software development, high level languages, compiling and linking, pseudo-code, input/output, data types and variables, operators and expressions, conditionals and loops, functions, arrays, pointers, structure data types, memory allocation, introduction to algorithms, software projects, debugging, documentation. Programs will use the C language.

ENEE 159 Introductory Topics in Computer Engineering (1-4) Prerequisite: a grade of "C" or better in ENEE114; and permission of department. Repeatable to 8 credits if content differs. Selected introductory level topics in computer engineering.
ENEE 181 Explore Electronics (1) Three hours of laboratory per week. Prerequisite: permission of department. Corequisite: MATH140. A highly structured introduction to electronics and circuitry with a hands-on approach to learning. Students will build electronic devices (some of which they can keep) and test them. Among the topics covered are AC and DC circuits, BJTs, op-amps and special projects involving communication and sensing.

ENEE 204 Basic Circuit Theory (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: PHYS260 and PHYS261 (formerly PHYS262). Corequisite: MATH246. Basic circuit elements: resistors, capacitors, inductors, sources, mutual inductance and transformers; their I-V relationships. Kirchoff’s Laws. DC and AC steady state analysis. Phasors, node and mesh analysis, superposition, theorems of Thevenin and Norton. Transient analysis for first- and second-order circuits.

ENEE 206 Fundamental Electric and Digital Circuit Laboratory (2) One hour of lecture and three hours of laboratory per week. Prerequisite: ENEE244. Corequisite: ENEE204. For ENEE majors 09090 only. Credit will be granted for only one of the following: ENEE206 or ENEE305. Formerly ENEE 305. Introduction to basic measurement techniques and electrical laboratory equipment (power supplies, oscilloscopes, voltmeters, etc.) Design, construction, and characterization of circuits containing passive elements, operational amplifiers, and digital integrated circuits. Transient and steady-state response. This course is a prerequisite to all upper level ENEE laboratories.

ENEE 241 Numerical Techniques in Engineering (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: MATH141; and (ENEE114 or CMSC106 or equivalent) Restricted to Engineering, Math and Physics majors only. Also offered as MATH 242. Credit will be granted for only one of the following: ENES240 or ENEE241 or MATH242. Formerly ENES 240. Introduction to error analysis, conditioning and stability of algorithms. Numerical solution of nonlinear equations. Vector spaces and linear transformations. Matrix algebra. Gaussian elimination. LU factorization. Similarity transformations and diagonalization. Iterative computation of eigenvalues. Interpolation; splines; data fitting. Numerical integration.

ENEE 244 Digital Logic Design (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: ENEE114 or CMSC106. Restricted to students with 09090 or 09991 major codes. Gates, flip-flops, registers and counters. Karnaugh map simplification of gate networks. Switching algebra. Synchronous sequential systems. PLA’s. Elements of binary arithmetic units. All lower-division CHEM, MATH, PHYS and Engineering courses that are required courses for the BSEE degree in Electrical Engineering and Computer Engineering must be completed before enrolling in any 300- or 400- ENEE course. Transfer students will be allowed one term to complete all such courses after starting to take upper-level ENEE courses. ENEE 302 Digital Electronics (3) Prerequisite: ENEE204 and completion of all lower-division courses in the EE curriculum. Restricted to students with 09090 or 09991 major codes. See above note. Large signal terminal characteristics of PN junction diodes, Bipolar and MOSFET transistors. Digital electronics at transistor level: inverter, NAND, NOR AND, or gates. CMOS and TTL logic. Combinatorial and sequential digital circuits, memory design. Circuit simulation with SPICE.

ENEE 303 Analog and Digital Electronics (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: A grade of C or higher in ENEE204 and all other 200-level ENEE courses. Corequisite: ENEE307. For ENEE and ENCP majors only and permission of department. Not open to students who have completed ENEE312 or ENEE306. Credit will be granted for only one of the following: ENEE302 or ENEE303. Conceptual operation of transistors and diodes. Large and small signal operation of BJTs and MOSFETs. Basic transistor configurations. Logic circuits and semiconductor memory. Multi-transistor circuits including differential amplifiers and current mirrors. Frequency response.

ENEE 306 Electronic Circuits Design Laboratory (2) One hour of lecture and three hours of laboratory per week. Prerequisite: ENEE302. For ENEE majors 09090 only. Not open to students who have completed ENEE143. Students will design, construct and test analog and digital circuits at the transistor level. Bipolar and field effect transistors will be used. Circuits designed will include common emitter and differential amplifiers, active filter, TTL and CMOS logic gates. Students should gain much of the background required for the design of modern microelectronic circuits.

ENEE 307 Electronic Circuits Design Laboratory (2) One hour of lecture and three hours of laboratory per week. Prerequisite: A grade of C or higher in ENEE204 and all other 200-level ENEE courses. Corequisite: ENEE303. For ENEE and ENCP majors only and permission of department. Not open to students who have completed ENEE306. Credit will be granted for only one of the following: ENEE306 and ENEE307. Students will design and test analog and digital circuits at the transistor level. FETs and BJTs will be used. The laboratory experiments will be tightly coordinated with ENEE303 lectures.

ENEE 312 Semiconductor Devices and Analog Electronics (3) Prerequisite: ENEE302 and completion of all lower-division technical courses in the EE curriculum. Restricted to students with a 09090 major code. See above note. The basic physical operation of P-N junction diodes, MOSFETs and bipolar transistors. Basic transistor circuit configurations (CE, CC, CB, CS, CD, CG). DC bias; small signal analysis. Simple multi-transistor circuits: diff-amp; current mirror. Frequency response.

ENEE 313 Introduction to Device Physics (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: A grade of "C" (2.0) or higher in ENEE204 and all other 200-level courses. For ENEE and ENCP majors only and permission of department. Credit will be granted for only one of the following: ENEE312 or ENEE313. Basic physics of devices including fields in solids, crystal structure, properties of
Electrical and Computer Engineering

ENEE 302 Computer Organization (3) Prerequisite: ENEE244 and completion of all lower-division technical courses in the EE curriculum. See above note. Not open to students who have completed ENEE250. Formerly ENEE 250. Structure and organization of digital computers. Registers, memory, control and I/O. Data and instruction formats, addressing modes, assembly language programming. Elements of system software, subroutines and their linkages.

ENEE 380 Electromagnetic Theory (3) Prerequisite: MATH241, PHYS270 and 271. Emphasis on vector and scalar fields, field potentials, boundary conditions, and Maxwell's equations.

ENEE 381 Electromagnetic Wave Propagation (3) Prerequisite: ENEE380 and completion of all lower-division technical courses in the EE curriculum. Introduction to electromagnetic wave propagation, transmission line theory, waveguides, antenna theory, and simulation.

ENEE 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

ENEE 350 Computer Organization (3) Prerequisite: ENEE244 and completion of all lower-division technical courses in the EE curriculum. See above note. For 09090 and 09991 majors only. Not open to students who have completed ENEE250. Formerly ENEE 250. Structure and organization of digital computers. Registers, memory, control and I/O. Data and instruction formats, addressing modes, assembly language programming. Elements of system software, subroutines and their linkages.

ENEE 359 Intermediate Topics in Computer Engineering (1-3) Prerequisite: Selected intermediate level topics in computer engineering.

ENEE 407 Microwave-Circuits Laboratory (2) One hour of lecture and three hours of laboratory per week. Prerequisite: ENEE206 and ENEE381 and completion of all lower-division technical courses in the EE curriculum. Restricted to students with a 09090 major code. Experiments concerned with circuits constructed from microwave components providing practical experience in the design, construction and testing of such circuits. Projects include microwave filters and S-parameter design with applications of current technology.

ENEE 408 Capstone Design Project (3) Prerequisite: permission of department. For 09090 and 09991 majors only. Repeatable to 6 credits if content differs. Culmination of prior course work in electrical and computer engineering. Utilization of modern design tools and methodologies for the design of components or systems under realistic constraints, with particular emphasis on teamwork and oral/written communication. Areas in which projects are currently offered include: microprocessor-based systems, digital systems, VLSI design (both digital and mixed-signal), and optical systems.

ENEE 416 Integrated Circuit Fabrication Laboratory (3) One hour of lecture and three hours of laboratory per week. Prerequisite: ENEE302 and completion of all lower-division technical courses in the EE curriculum. For 09090 and 09991 majors only. Not open to students who have completed ENEE419J. Formerly ENEE 419J. Characterization of wafers and fabrication steps. Oxide growth, lithography, dopant diffusion, and metal deposition and patterning will be discussed in the lectures and carried out in the lab in fabricating NMOS transistor circuits. The transistor characteristics will be measured and related to the fabrication parameters.

ENEE 417 Microelectronics Design Laboratory (2) One hour of lecture and three hours of laboratory per week. Prerequisite: ENEE306 and ENEE312 and completion of all lower-division technical courses in the curriculum. For ENEE majors only. Senior capstone project laboratory, where student design and build fairly sophisticated circuits, mainly composed of discrete transistors and integrated circuits. Many of the projects are designed to require that students synthesize from what they have learned in many of the disciplines in electrical engineering. Students learn they can actually use their knowledge to build something very practical, which may include a high-fidelity amplifier, a radio, a memory cell, a transmitter, etc.
ENEE 419 Topics in Microelectronics (1-3) Prerequisite: permission of department and completion of all lower-division technical courses in the EE curriculum. Repeatable to any number of credits if content differs. For 09090 and 09991 majors only. Selected topics of current importance in microelectronics.

ENEE 420 Communication Systems (3) Prerequisite: ENEE324 and completion of all lower-division technical courses in the EE curriculum. See above note. Fourier series, Fourier transforms and linear system analysis; random signals, autocorrelation functions and power spectral densities; analog communication systems: amplitude modulation, single-sideband modulation, frequency and phase modulation, sampling theorem and pulse-amplitude modulation; digital communication systems pulse-code modulation, phase-shift keying, differential phase shift keying, frequency shift keying; performance of analog and digital communication systems in the presence of noise.

ENEE 425 Digital Signal Processing (3) Prerequisite: ENEE322 and completion of all lower-division technical courses in the EE curriculum. See above note. Sampling as a modulation process; aliasing; the sampling theorem; the Z-transform and discrete-time system analysis; direct and computer-aided design of recursive and nonrecursive digital filters; the Discrete Fourier Transform (DFT) and Fast Fourier Transform (FFT); digital filtering using the FFT; analog-to-digital and digital-to-analog conversion; effects of quantization and finite-word-length arithmetic.

ENEE 426 Communication Networks (3) Prerequisite: ENEE324 and completion of all lower-division technical courses in the EE curriculum. Restricted to students with a 09090 major code. See above note. The main design issues associated with computer networks, satellite systems, radio nets, and general communication networks. Application of analytical tools of queuing theory to design problems in such networks. Review of proposed architectures and protocols.

ENEE 428 Communications Design Laboratory (2) One hour of lecture and three hours of laboratory per week. Prerequisite: ENEE324 and completion of all lower-division technical courses in the EE curriculum. See above note. Corequisite: ENEE420 or ENEE425. For ENEE majors only. EE capstone design course. Exploring the signal processing and communication systems theoretical concepts presented in ENEE 420 Communication Systems and ENEE 425 Digital Signal Processing by implementing them on actual DSP based hardware in real time.

ENEE 429 Topics in Communications (1-3) Prerequisite: permission of department and completion of all lower-division technical courses in the EE curriculum. Repeatable to any number of credits if content differs. For 09090 and 09991 majors only. Selected topics of current importance in communications.

ENEE 434 Introduction to Neural Networks and Signals (3) Prerequisite: ENEE204 and completion of all lower-division technical courses in the EE curriculum. See above note. Introduction to the generation and processing of bioelectric signals including structure and function of the neuron, membrane theory, generation and propagation of nerve impulses, synaptic mechanisms, transduction and neural coding of sensory events, central nervous system processing of sensory information and correlated electrical signals, control of effector organs, muscle contraction and mechanics, and models of neurons and neural networks.


ENEE 439 Topics in Signal Processing (1-3) Prerequisite: permission of department and completion of all lower division technical courses in the EE curriculum. Repeatable to any number of credits if content differs. For 09090 and 09991 majors only. Selected topics of current importance in signal processing.

ENEE 440 Microprocessors (3) Prerequisite: ENEE350 and completion of all lower-division technical courses in the EE curriculum. See above note. For 09090 and 09991 majors only. Microprocessor architectures, instruction sets, and applications. Bus structures, memory, I/O interfacing. Assembly language programming, LSI device configuration, and the embedding of microprocessors in systems.

ENEE 445 Computer Laboratory (2) One hour of lecture and three hours of laboratory per week. Prerequisites: ENEE206 and ENEE350; and completion of all lower-division technical courses in the EE curriculum. For 09090 and 09991 majors only. This laboratory course focuses on the hardware/software interface in computer systems. Hand-on experiments are used to teach design, construction, analysis, and measurement of both hardware and software for embedded systems. Projects emphasize using microcontrollers for control, sensing, and communication through various I/O devices.

ENEE 446 Digital Computer Design (3) Prerequisite: ENEE350 and completion of all lower-division technical courses in the EE curriculum. See above note. Hardware design of digital computers. Arithmetic and logic units, adders, multipliers and dividers. Floating-point arithmetic units. Bus and register structures. Control units, both hardwired and microprogrammed. Index registers, stacks, and other addressing schemes.
Interrupts, DMA and interfacing.

**ENEE 447 Operating Systems** *(3)* Prerequisites: ENEE350, experience in C or C++, and familiarity with UNIX, and completion of all lower-division technical courses in the EE curriculum. For 09090 and 09991 majors only. Not open to students who have completed ENEE459S. Formerly ENEE 459S. The goal of this course is to present the theory, design, implementation and analysis of computer operating systems. Through classroom lectures, homework, and projects, students learn the fundamentals of concurrency, and process management, interprocess communication and synchronization, job scheduling algorithms, memory management, input/output devices, file systems, and protection and security in operating systems. Optional topics may include communications protocols, computer security, and real-time operating systems.

**ENEE 459 Topics in Computer Engineering** *(1-3)* Prerequisite: permission of department and completion of all lower-division technical courses in the EE curriculum. Repeatable to any number of credits if content differs. For 09090 and 09991 majors only. Selected topics of current importance in computer engineering.

**ENEE 460 Control Systems** *(3)* Prerequisite: ENEE322 and completion of all lower-division technical courses in the EE curriculum. See note above. For ENEE majors only. Mathematical models for control system components. Transform and time domain methods for linear control systems. Introductory stability theory. Root locus, bode diagrams and Nyquist plots. Design specifications in the time and frequency domains. Compensation design in the time and frequency domain. Introduction to sampled data systems.

**ENEE 461 Control Systems Laboratory** *(2)* One hour of lecture and three hours of laboratory per week. Prerequisites: ENEE206, ENE460 and completion of all lower-division technical courses in the EE curriculum. Restricted to students with a 09090 major code. See above note. Projects to enhance the student’s understanding of feedback control systems and to familiarize him with the characteristics and limitations of real control devices. Students will design, build, and test servomechanisms, and will conduct analog and hybrid computer simulations of control systems.

**ENEE 463 Digital Control Systems** *(3)* Prerequisites: ENEE322 and completion of lower-division technical courses in the EE curriculum. For 09090 and 09991 majors only. Not open to students who have completed ENEE469E. Formerly ENEE 469E. Introduction to techniques for the analysis and design of linear control systems and implementation of control systems using digital technology. Topics include linearization, solution of linear equations, z-transforms and Laplace transforms, design of linear controllers, optimal control, and digital implementation of control designs. Students will use MATLAB for the solution of problems and the design of control systems.

**ENEE 469 Topics in Control** *(1-3)* Prerequisites: permission of department and completion of all lower-division technical courses in the EE curriculum. Repeatable to any number of credits if content differs. For 09090 and 09991 majors only. Selected topics of current importance in controls.

**ENEE 473 Electrical Machines Laboratory** *(2)* One hour of lecture and three hours of laboratory per week. Prerequisite: ENEE206 and completion of all lower-division technical courses in the EE curriculum. Restricted to students with a 09090 major code. See above note. Experiments involving single and three phase transformers, induction machines, synchronous machines and D.C. machines.

**ENEE 474 Power Systems** *(3)* Prerequisite: ENEE322 and completion of all lower-division technical in the EE curriculum. See above note. Interconnected power systems, transmission lines, load flow studies, unit commitment and economic dispatch. Three phase networks, machine models. Symmetrical components, fault analysis and unbalanced operation. Power system transients, stability and numerical methods in power system analysis.

**ENEE 475 Power Electronics** *(3)* Prerequisite: ENEE302 and completion of all lower-division technical courses in the EE curriculum. See above note. For ENEE majors only. This course is suitable for undergraduate and graduate students who want to learn the basic principles of power electronics and its applications. Special emphasis is placed on interdisciplinary nature of power electronics. Strong and intimate connections between power electronics and circuit theory, electronic circuits, semiconductor devices, electric power, magnetic, motor drives and control are stressed.

**ENEE 480 Fundamentals of Solid State Electronics** *(3)* Prerequisite: ENEE302 and completion of all lower-division technical courses in the EE curriculum. See above note. Crystal structure and materials preparation; carrier transport; elementary quantum mechanics applied to solids; band structure of metals, insulators, and semiconductors; field effect transistors; PN junctions; bipolar transistors; fabrication of devices.

**ENEE 482 Design of Active and Passive Microwave Devices** *(3)* Prerequisite: ENEE381 and completion of all lower-division technical courses in the EE curriculum. See above note. Design and operation of passive and active microwave devices. The passive components include waveguides, resonators, and antennas. The active devices include klystrons, magnetrons, gyrotrons, and free electron lasers.

**ENEE 486 Optoelectronics Lab** *(2)* One hour of lecture and three hours of laboratory per week. Prerequisite: ENEE206 and (PHYS270 and 271 (Formerly: PHYS263)) and completion of all lower-division technical courses in the EE curriculum. Restricted to students with a 09090 major code. Hands-on experience

**ENEE 489 Topics in Electrophysics (1-3)** Prerequisites: permission of department and completion of all lower-division technical courses in the EE curriculum. Repeatable to any number of credits if content differs. For 09090 and 09991 majors only. Selected topics of current importance in electrophysics.

**ENEE 490 Physical Principles of Wireless Communications (3)** Prerequisite: ENEE381 Restricted to ENEE and ENCP students. Not open to students who have completed ENEE498B. Credit will be granted for only one of the following: ENEE490 or ENEE498B. Formerly ENEE 498B.

**ENEE 496 Lasers and Electro-optic Devices (3)** Prerequisite: Completion of all lower-division technical courses in the EE curriculum. Corequisite: ENEE381 For 09090 and 09991 majors only. Modern physical optics: Gaussian beams, optical resonators, optical waveguides; theory of laser oscillation, rate equations; common laser systems. Selected modern optoelectronic devices like detectors and modulators. Role of lasers and optoelectronics in modern technology.

**ENEE 498 Topics in Electrical Engineering (1-3)** Prerequisites: permission of department and completion of all lower-division technical courses in the EE curriculum. See above note. Repeatable to any number of credits if content differs. For 09090 majors only. Formerly ENEE 488. Selected topics of current importance in electrical engineering.

**ENEE 499 Senior Projects in Electrical Engineering (1-3)** Hours to be arranged. Prerequisites: permission of instructor and department and completion of all lower-division technical courses in the EE curriculum. See above note. Repeatable to any number of credits if content differs. For 09090 majors only. Formerly ENEE 418. Theoretical and experimental projects.

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Chapter 8: Approved Courses

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Select Program: ENES - Engineering Science
Course Number: 

Courses in "ENES-Engineering Science"

ENES - Engineering Science

ENES 100 Introduction to Engineering Design (3) One hour of lecture, two hours of laboratory, and two hours of discussion/recitation per week. Corequisite: MATH140. Students work as teams to design and build a product using computer software for word-processing, spreadsheet, CAD, and communication skills.

ENES 102 Statics (3) Two hours of discussion/recitation per week. Prerequisite: MATH140. For engineering majors only. Formerly ENES 110. The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, centroids, moment of inertia, beams, and friction. Vector and scalar methods are used to solve problems.
**ENES 106 Job Search Strategies for Engineering Students (1)** For Engineering majors only. Credit will be granted for only one of the following: EDCP108J or ENES106. Formerly EDCP 108J. Course designed for engineering students seeking co-op or internship positions, although any interested engineering student may enroll. Learn and practice effective job search skill and techniques including writing resumes and cover letters, interviewing, evaluating job offers, negotiating salaries, transitioning from school to work, and making the most of your job experience.

**ENES 140 Discovering New Ventures (3)** Two hours of lecture and one hour of discussion/recitation per week. This course may count as an elective for a student at the University of Maryland, depending on the student's specific degree program. It cannot be counted towards the requirements for the Smith School of Business Entrepreneurship Fellow Program. Students explore dynamic company startup topics by working in teams to design a new venture. This multi-disciplinary course helps students to learn the basic business, strategy, and leadership skills needed to launch new ventures. Topics include learning how to assess the feasibility of a startup venture, as well as how to apply best practices for planning, launching, and managing new companies. Students discuss a wide range of issues of importance and concern to entrepreneurs and learn to recognize opportunities, assess the skills and talents of successful entrepreneurs, and learn models that help them navigate uncertainty.

**ENES 160 Inventis Colloquium (1)** Restricted to Students in the Inventis Program. A colloquium on a variety of engineering topics. Attendance at various additional activities and events is required.

**ENES 170 Inventis - Professional Concepts in Engineering (1)** Restricted to students in the Inventis program. Engineering professional concepts course focusing on emerging technologies, career opportunities for engineering, ethics in engineering, engineering in the context of the society, and technological entrepreneurship.

**ENES 180 Dialogue with the Dean (1)** One hour of lecture per week. For new transfer and freshmen Engineering majors only. Introduction to Engineering as a Profession, Overview of Martin Institute and Clark School Education and Research Programs, The Future of Engineering and Engineering Education Basic Technological Literacy, Business and Entrepreneurship Issues for Engineers, the Joy of Discovery, Student Projects: How to get involved, Research and Development Programs: How to get involved, what the corporate sector expects from a new engineering graduate.

**ENES 181 Dialogue with the Dean (1)** Prerequisite: new students only - transfers and freshmen. For ENGR majors only. Introduction to Engineering as a Profession, Overview of Martin Institute and Clark School Education and Research Programs, The Future of Engineering and Engineering Education, Basic Technological Literacy, Business and Entrepreneurship Issues for Engineers, the Joy of Discovery, Student Projects: How to get involved, Research and Development Programs: How to get involved, What the corporate sector expects from a new engineering graduate.

**ENES 190 Introduction to Design and Quality (4)** Three hours of lecture and two hours of discussion/recitation per week. Prerequisite: permission of college. Also offered as BMGT190. Credit will be granted for only one of the following: BMGT190 or ENES190. Expose engineering and business students to the principles of total quality, using experiential team learning and technology aided approaches. The first of four courses in total quality.

**ENES 220 Mechanics of Materials (3)** Prerequisites: ENES102; and MATH141; and PHYS161. For engineering majors only (not including ENEE majors). Stress and deformation of solids-rods, beams, shafts, columns, tanks, and other structural, machine and vehicle members. Topics include stress transformation using Mohr's circle; shear and moment diagrams; derivation of elastic curves; and Euler's buckling formula. Design problems related to this material are given in lab.

**ENES 221 Dynamics (3)** Two hours of lecture and two hours of laboratory per week. Prerequisites: ENES102 or ENES110; and MATH141; and PHYS161. Systems of heavy particles and rigid bodies at rest and in motion. Force-acceleration, work-energy and impulse-momentum relationships. Motion of one body relative to another in a plane and in space.

**ENES 230 Introduction to Materials and Their Applications (3)** Prerequisite: ENES100 or permission of department. Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Material selection in engineering applications.

**ENES 270 Inventis-Professional Skills in Engineering (1)** Restricted to students in the Inventis program. Prerequisite: ENES170. Engineering professional skills course focusing on team building, communication skills, technical writing, technology management, and intellectual property and standards.

**ENES 380 Methods for Measuring Quality (3)** Prerequisite: BMGT190 or ENES190. Also offered as BMGT290. Provides engineering and business students an understanding of the need and use of measurement techniques that lead to continuous improvement. The second course of four courses in total quality.

**ENES 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.
ENES 388 Engineering Honors Seminar (1)

ENES 389 Selected Topics (3) Repeatable to 6 credits if content differs.

ENES 390 Competing on Quality in a Global Economy (3) Prerequisite: BMGT290 or ENES380. Also offered as BMGT390. Examines strategic quality management in a globalized setting. Global marketing, international finance, and cross-cultural concepts will be emphasized. The third of four courses in total quality.

ENES 435 Product Liability and Regulation (3) Junior standing. Key topics include, biotechnology, safety regulation, federal preemption, product liability, professional negligence, antitrust, privacy and information technology, risk modeling, environmental protection, patent, copyright, trade secrets, reverse engineering, scientific and technological evidence, international trade, engineering ethics. Examples include plane crashes, computer chip protection, human machine interfaces, nuclear power plants, internet censorship, flood control, earthquakes and biomedical technology.

ENES 440 Science, Technology and Society: Certificate Program Capstone (3) Prerequisite: STS certificate students or permission of department. Credit will be granted for only one of the following: ENES440 or UNIV401. Formerly UNIV 401. Capstone research seminar for students in the Science, Technology and Society certificate program.

ENES 458 Topics in International Engineering (1-3) Prerequisite: ENES100. Repeatable to 12 credits if content differs. A variety of topics related to engineering in a global context are discussed including cultural aspects, cross-cultural communication, international standards and law, and engineering and technology issues, business behavior, attitudes and values of selected countries and regions.

ENES 460 Fundamentals of Technology Start-Up Ventures (3) Also offered as BUSI758T. Formerly ENES 489A. Fundamental aspects of creating, organizing, funding, managing, and growing a technology startup venture. This multidisciplinary course will draw on management, business, legal, financial, as well as technical, concepts. Students form teams and develop a business plan for a technology company, based on each team's own business idea and then present the plan to a panel of outside experts.

ENES 472 International Business Cultures in Engineering and Technology (3) Prerequisite: permission of department. Sophomore standing. Also offered as SLLC472. Credit will be granted for only one of the following: ARHU439B, ARHU439E, ARHU439T, ENES472, SLLC471, SLLC472 or SLLC473. Formerly ARHU 439T. The goal is to provide students with an understanding of cultural aspects pertaining to global business and engineering and develop the cultural understanding, attitudes, and communication skills needed to function appropriately within an increasingly global and multicultural working environment.

ENES 478 Topics in Engineering Education (1) Restricted to students in Engineering Teaching Fellow Program. Repeatable to 3 credits if content differs. Topics related to teaching engineering courses, particularly project-based courses. Topics can include learning styles, student development theory, multicultural issues in teaching, facilitating team experiences, assessment, and academic integrity.

ENES 480 Engineering Honors Seminar I (1) Prerequisite: membership in College of Engineering Honors. Junior standing. Introduction to engineering leadership, professionalism, and ethics. Discussions of leadership style, elements of success, professional communication, codes of ethics, handling of ethical dilemmas, and the characteristics of a professional.

ENES 481 Engineering Honors Seminar II (1) Prerequisite: membership in College of Engineering Honors. Junior standing. Introduction to engineering creativity and innovation in engineering. Application of methods of creativity to topics in communication, conducting research, and leadership.

ENES 489 Special Topics in Engineering (3-6) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Special topics in engineering.

ENES 490 The Total Quality Practicum (3) Prerequisite: BMGT390 or ENES390. Also offered as BMGT490. Credit will be granted for only one of the following: BMGT490 or ENES490. Capstone course for the four course total quality program. Based on a major project undertaken by student teams in an industry environment emphasizing integrative aspects of total quality, each project will be supervised by a joint faculty/industry team with differing areas of expertise.

ENES 496 NASA Academy (4) Two hours of lecture and four hours of laboratory per week. Prerequisite: college permission. Junior standing. Also offered as CMP5496 or GE4G496. Credit will be granted for only one of the following: CMP5496, ENES5496 or GE4G496. A ten-week resident summer institute at Goddard Space Flight Center for juniors, seniors and first-year graduate students interested in pursuing professional and leadership careers in space-related fields. The national program includes research in a Goddard laboratory, field trips to NASA centers, and a combination of lectures and workshops on the mission, current activities and management of NASA. Students interested in the Academy will find information at http://nasa-academy.nasa.gov Application should be made by the end of January; sponsorship by an affiliated State Space Grant Consortium is customary, but not required.
ENES 498 Special Topics in Entrepreneurship (3) Two hours of lecture per week. Prerequisite: Hinman CEO's membership. Repeatable to 12 credits if content differs. This entrepreneurship seminar and case study-based course will explore technology entrepreneurship with a focus on leadership, marketing, team-building, and management of new technology ventures and assumes baseline knowledge of entrepreneurship. Students will learn skills needed to succeed as a technology entrepreneur and how to apply best practices for planning, launching, and growing new companies. This course is a requirement of the Hinman CEOs program.

ENES 508 Engineering Professional Development for Teachers (1-6) Two hours of lecture and three hours of laboratory per week. Prerequisite: permission of department. For non-engineering majors only. Repeatable to 6 credits if content differs. An introduction to the fundamental concepts that underlie engineering and the process that engineers use in solving technological problems and in design work. Problems in experimental analysis are demonstrated through laboratory experiments. The laboratory work provides the basis for introductory design.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: ENFP - Engineering, Fire Protection

Course Number:  

Search

Courses in "ENFP-Engineering, Fire Protection"

ENFP - Engineering, Fire Protection

ENFP 108 Hot Topics in Fire Protection Engineering (1) Repeatable to 2 credits if content differs. Current issues of importance to fire protection engineering. Topics focus on advances in basic fire science, computerized fire modeling, safety systems, human behavior and fire, fire toxicity, risk analysis, performance based fire safety, fire reconstruction, arson and evidence, voluntary fire safety standards, codes, and relations with other disciplines including architecture and the built environment, loss prevention and fire insurance.

ENFP 210 Fire and Western Culture (3) Fire and Western Culture: Human interaction with fire as both destructive and productive force from ancient cultures to the present. Fire in war, agriculture, religion, art, industry, philosophy, science, urban development, engineering, criminal law, including arson and modern environmental protection.
ENFP 250 Introduction to Life Safety Analysis (3) Prerequisite: permission of department. Credit will be granted for only one of the following: ENFP421 or ENFP250. Formerly ENFP 251. Introduction to fire protection engineering and building regulation, building safety systems, and egress system design. Evacuation modeling. Human behavior in fires. Tenability Analysis.

ENFP 255 Fire Alarm and Special Hazards Design (3) Prerequisite: permission of department. Formerly ENFP 315. Study of fire detection and alarm and gaseous and particulate fire suppression systems. Examination and evaluation of design criteria, performance specifications and research. Application of elementary fluid theory to the design and calculation procedures for gaseous and particulate fire suppression systems. An integrated fire protection systems design project.

ENFP 300 Fire Protection Fluid Mechanics (3) Prerequisites: MATH246 and (PHYS260 and PHYS261 (Formerly: PHYS262)). Basic principles of fluid flow. Properties of a fluid, velocity field, flow patterns. Pressure distribution in a fluid. Hydrostatic and hydrodynamic problems. Integral relations for control volumes. Differential relations, dimensional analysis and similarity. Internal and external flow problems associated with fire protection systems and fire scenarios.

ENFP 310 Water Based Fire Protection Systems Design (3) Prerequisite: ENFP300 and permission of department. Corequisite: ENFP312. Introduction to aqueous fire suppression. Discussion of key fluid dynamics and heat transfer processes in aqueous fire suppression. System design and performance analysis based on national standards, hydraulic theory and elementary fluid dynamics and heat transfer.

ENFP 312 Heat and Mass Transfer (3) Prerequisites: (ENCH300, ENME320 or ENME232) and (ENFP300, ENCE330 or ENME331). Fundamentals of heat and mass transfer. Conduction, convection, radiation modes of heat transfer. Diffusion concepts and evaporation phenomena. Problem solving techniques with application to fire problems.

ENFP 320 Fire Assessment Methods and Laboratory (4) Three hours of lecture and two hours of laboratory per week. For ENFP majors only. Experimental evaluation of ignition, flame spread, rate of heat release and smoke production of furnishings and interior finish materials.

ENFP 350 Professional Development Seminar (1) One hour of lecture, discussion, seminar or invited speakers per week. Prerequisite: permission of department. Junior standing. Not open to students who have completed ENFP450. Credit will be granted for only one of the following: ENFP350 or ENFP450. Formerly ENFP 450. An integrative, upper level professional development seminar covering topics such as engineering ethics, professional licensing, codes and standards, intellectual property, career selection and various contemporary issues in fire protection engineering.

ENFP 405 Structural Fire Protection (3) Prerequisite: ENES220. For ENFP majors only. Effects of elevated temperature on structural materials; steel, concrete, wood, gypsum, glass and reinforced plastics. Experimental evaluation of fire resistance of building assemblies. Analytical methods to evaluate fire resistance of structural members.

ENFP 411 Fire Risk Assessment (3) Prerequisites: ENFP250, ENFP255 and permission of department. Appraisal and measurement of fire safety. Application of systems analysis, probability theory, engineering economy, and risk management in the identification and synthesis of components of fire protection engineering. Methods for the development of criteria for the design, evaluation and assessment of fire safety or component hazards.

ENFP 415 Fire Dynamics (3) Prerequisites: ENFP300 or ENME331; and ENME320; and ENFP312 or permission of department. Introduction to premixed and diffusion flames; ignition, flame spread and rate of burning; fire plumes; flame radiation.

ENFP 416 Problem Synthesis and Design (3) Senior standing. Techniques and procedures of problem orientation and solution design utilizing logical and numerical procedures. Student development of research projects in selected areas.

ENFP 425 Fire Modeling (3) Prerequisite: permission of department. Senior standing. For ENFP majors only. An introduction to the elements of enclosure fires through the development of fire modeling algorithms and the application of computer-based fire modeling techniques. Numerical techniques, including curve-fitting, root-finding, integration and the solution of ordinary differential equations, are developed in the context of enclosure fire modeling applications. Math software packages, including primarily spreadsheet programs, are used to address and solve a variety of enclosure fire problems.

ENFP 429 Independent Studies (1-3) Prerequisite: permission of department. For ENFP majors only. Repeatable to 6 credits if content differs. For students who have definite plans for individual study of approved problems, or study of an advanced topic selected in conjunction with the faculty.

ENFP 431 Building Safety and the Law (3) Junior standing. Responding to natural and manufactured building hazards requires a complex legal environment, including regulation and liability. Key topics include the use of model codes, administrative regulation, retrospective codes, federal preemption, arson,
performance based codes, risk based regulation, engineering malpractice, product liability and disaster investigation.

**ENFP 435 Product Liability and Regulation (3)** Junior standing. Key topics include, biotechnology, safety regulation, federal preemption, product liability, professional negligence, antitrust, privacy and information technology, risk modeling, environmental protection, patent, copyright, trade secrets, reverse engineering, scientific and technological evidence, international trade, engineering ethics. Examples include plane crashes, computer chip protection, human machine interfaces, nuclear power plants, internet censorship, flood control, earthquakes and biomedical technology.

**ENFP 489 Special Topics (3)** Prerequisite: permission of department. Repeatable to 6 credits. Selected topics of current importance to fire protection.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: ENGL - English

Course Number:  

Search

Courses in "ENGL-English"

ENGL - English

ENGL 101 Introduction to Writing (3) An introductory course in expository writing.

ENGL 181 English Grammar (1) Not open to students who have completed ENGL281 or JOUR181. Credit will be granted for only one of the following: ENGL181 or JOUR181. The basic structure of formal written English, including parts of speech, sentence patterns, standard punctuation, diction, and usage.

ENGL 201 Literature of the Western World I: Ancient and Medieval (3) Readings of authors, works, and genres, largely continental, in the early Western literary tradition. Readings such as selections from the Bible, Homer, Sophocles, Aeschylus, Sappho, Virgil, Ovid, Seneca, Augustine, Dante, medieval romance.
ENGL 202 Literature of the Western World II: Renaissance to Modern (3) Readings of major authors, works, and genres, largely continental, in the late Western literary tradition. Readings may include Cervantes, Calderon, Moliere, Voltaire, Goethe, Dostoevsky, Ibsen, Chekhov, Flaubert, Sand, Camus, drama, the rise of the novel.

ENGL 205 Introduction to Shakespeare (3) Recommended for non-majors. Reading of representative works. Genre, action, character, theme, language, and staging. Shakespeare's relation to Renaissance culture.

ENGL 210 Love, Adventure, and Identity in Early English Literature (3) The themes of love, evil, adventure, heroism and others as they are revealed in the early English epic, romance and novel. Texts include Beowulf, Sir Gawain and the Green Knight, Othello, Robinson Crusoe, and others.

ENGL 211 English Literature: Beginnings to 1800 (3) Surveys medieval and early modern literary works written in England. Readings may include Beowulf, Chaucer, Spenser, Mary Wroth, Milton; eighteenth-century satire, drama, novels.

ENGL 212 English Literature: 1800 to the Present (3) Surveys the major literary movements of the period, from Romantic to Victorian to Modern. Such authors as Wordsworth, Keats, Bronte, Tennyson, Browning, Yeats, Joyce, Woolf.

ENGL 221 American Literature: Beginning to 1865 (3) Surveys American writing from the founding of the colonies through the Civil War. Authors such as Taylor, Cooper, Poe, Dickinson.

ENGL 222 American Literature: 1865 to Present (3) Surveys American writing from the Civil War through the Cold War. Authors such as Clemens, Frost, Hurston, Bellow.

ENGL 233 Introduction to Asian American Literature (3) Also offered as AAST233. Not open to students who have completed AAST233 or AAST298L. Credit will be granted for only one of the following: AAST233, AAST298L or ENGL233. A survey of Asian American literatures with an emphasis on recurrent themes and historical context.

ENGL 234 Introduction to African-American Literature (3) A survey of African-American literature from the late 18th century to the present.

ENGL 235 Introduction to the Literatures of the African Diaspora (3) Not open to students who have completed CMLT235. Credit will be granted for only one of the following: CMLT235 or ENGL235. Authors, periods, and genres that reflect the diversity of African and African Diaspora cultures.

ENGL 240 Introduction to Fiction, Poetry, and Drama (3) Not open to students who have completed ENGL102. Readings in the novel, short story, poetry and drama.

ENGL 241 Introduction to the Novel (3) Historical, formal, social questions about the genre. Readings drawn from a range of cultures and communities.

ENGL 242 Introduction to Poetry (3) How poetry works. Focus on style, subject, rhythm, voice, technique and structure. Readings from a range of cultures and communities.

ENGL 243 Introduction to the Novel (3) A survey of the basic literature of drama from the classical Greeks to modern times.

ENGL 245 Film and the Narrative Tradition (3) Primary attention is on the film as a narrative medium, but other literary models will be examined.

ENGL 250 Introduction to Literature by Women (3) Also offered as WMST255. Credit will be granted for only one of the following: ENGL250 or WMST255. Images of women in literature by and about women.

ENGL 260 Introduction to Folklore (3) Surveys a wide range of folklore genres; history and theory of folklore.

ENGL 262 The Hebrew Bible: Narrative (3) Also offered as JWST262. Not open to students who have completed HEBR223. Credit will be granted for only one of the following: ENGL262 or JWST262. Formerly HEBR 223. Selected readings from narrative sections of the Hebrew Bible stressing the new literary approaches to the biblical text. In English; no knowledge of Hebrew required.

ENGL 263 The Hebrew Bible: Poetry and Prophecy (3) Also offered as JWST263. Not open to students who have completed HEBR224. Credit will be granted for only one of the following: ENGL263 or JWST263. Formerly HEBR 224. Readings of poetic and prophetic selections from the Hebrew Bible. Analysis of devices
and their rhetorical effort. Comparison of biblical poetry with other poetry of the ancient near East. In English; no knowledge of Hebrew required.

**ENGL 265 Introduction to Lesbian, Gay, and Bisexual Literature (3)** Also offered as LGBT265. Not open to students who have completed LGBT265. Credit will be granted for only one of the following: ENGL265 or LGBT265. A study of the pervasiveness of homoerotism in literature from the Renaissance to the present. Emphasis on one's struggle to find voice and motifs within the context of stigma, suppression, and silence. Writers might include Shakespeare, Walt Whitman, Emily Dickinson, Oscar Wilde, Willa Cather, James Baldwin, Audre Lorde, Adrienne Rich.

**ENGL 277 Mythologies: An Introduction (3)** Introduction to the myths of Europe, Asia, Oceania, the Middle East, Africa and North and South America.

**ENGL 278 Special Topics in Literature (3)** Repeatable to 9 credits if content differs.

**ENGL 280 Introduction to the English Language (3)** Facts and phenomena of the English language; basic concepts and instruments useful for the analysis of literary and rhetorical uses of English. Potential topics include the history of English, its metrics, lexical patterns, common rhetorical devices, literary genres and its role as an international language.

**ENGL 281 Standard English Grammar, Usage, and Diction (3)** The basic structure of written English, including parts of speech, sentence patterns, standard punctuation, diction, and usage.

**ENGL 282 Introduction to Rhetorical Theory (3)** Basic elements of rhetorical theory. Classical and contemporary perspectives on the nature, functions, and scope of rhetoric. Potential texts for analysis include non-fiction prose, novels, short fiction, philosophical treatises, autobiographies, biographies, and speeches.

**ENGL 291 Introduction to Creative Writing (3)** Writing of fiction and poetry, with special attention to elements of style and craft. Selected readings, frequent writing exercises, workshop format.

**ENGL 294 Introduction to Creative Writing (3)** Writing of fiction and poetry, with special attention to elements of style and craft. Selected readings, frequent writing exercises, workshop format.

**ENGL 296 Beginning Fiction Workshop (3)** Writing of fiction, with special attention to the elements of style and craft. Selected readings, frequent writing exercises, workshop format.

**ENGL 297 Beginning Poetry Workshop (3)** Writing of poetry, with special attention to the elements of style and craft. Selected readings, frequent writing exercises, workshop format.

**ENGL 299 Critical Methods in the Study of Literature (3)** For English and English Education Majors, or English Minors. An introduction to the techniques of literary analysis and a brief survey of the most common approaches to literature.

**ENGL 301 Critical Methods in the Study of Literature (3)** For English or English Education Majors, or English Minors. An introduction to the techniques of literary analysis and a brief survey of the most common approaches to literature.

**ENGL 302 Medieval Literature in Translation (3)** Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Surveys major works of English and continental Middle Ages. Readings may include romance, lyric and drama, Germanic epic, works of Dante, Chretien de Troyes, Jean de Meun, Christine de Pisan, Malory, English and continental mystics.

**ENGL 304 The Major Works of Shakespeare (3)** Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Not open to students who have completed ENGL403 and ENGL404. Representative early, middle, and later works, including comedies, tragedies, histories, and romances. Historical and cultural contexts.

**ENGL 305 Shakespeare and His Contemporaries: An Introduction (3)** Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Readings in Shakespeare and contemporaries such as Marlowe, Dekker, Middleton, Jonson, Webster, Chapman, Marston. Elizabethan and Jacobean theatrical and social contexts.

**ENGL 306 Medieval and Renaissance British Literature (3)** Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Detailed study of selected major medieval and Renaissance works written in England. Cultural attitudes and historical contexts. May include Beowulf, Anglo-Saxon lyric, drama, sonnets; works of women writers, Chaucer, Spenser, Sidney. Some readings in Middle English.

**ENGL 307 British Literature from 1600 to 1800 (3)** Prerequisite: two lower-level English courses, at least one in literature; or permission of department. The culture of seventeenth and eighteenth-century Britain seen through detailed study of selected major texts. Drama, poetry, political writings, and early novels by men and women. Authors may include Donne, Milton, Jonson, Behn, Swift, Pope, Montagu, and Wollstonecraft.
ENGL 312 Romantic to Modern British Literature (3) Detailed study of selected major texts from the 19th and 20th centuries. Transitions from Romanticism to Victorian age to Modernism. Historical, social, literary contexts. Issues such as rise of democracy; industrial revolution; the "woman question"; revolutions in literary form. Authors might include Wordsworth, Austen, Dickens, Arnold, T.S. Eliot, Woolf.

ENGL 313 American Literature (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. A detailed study of selected major texts of American literature from the 17th century to the 20th century. Issues such as race, gender, and regionalism. Authors such as Franklin, Hawthorne, Dickinson, Hemingway, and Morrison.

ENGL 339 Native American Literature (3) Prerequisite: Two lower level English classes, at least one in literature; or permission of department. Repeatable to 9 credits if content differs. Study of selected writers or particular themes or genres in Native American literatures.

ENGL 344 Nineteenth-Century Fiction (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Not open to students who have completed ENGL379A in Fall 2005 or Spring 2006. Major British, American, and other fiction writers of the twentieth century studied in the context of the broad global, intellectual, and artistic interests of the century.

ENGL 345 Twentieth Century Poetry (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Not open to students who have completed ENGL445 or ENGL446. Major British and American poets of the twentieth century.

ENGL 346 Twentieth Century Fiction (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Not open to students who have completed ENGL379B in Spring 2006. Major British, American, and other fiction writers of the twentieth century studied in the context of the broad global, intellectual, and artistic interests of the century.

ENGL 348 Literary Works by Women (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Repeatable to 6 credits if content differs. Also offered as WMST348. Credit will be granted for only one of the following: ENGL348 or WMST348. The context, form, style and meaning of literary works by women.

ENGL 349 Asian American Literatures (3) Prerequisite: Two lower level English classes, at least one in literature; or permission of department. Repeatable to 9 credits if content differs. Study of selected writers, particular themes, or genres in Asian American literatures.

ENGL 359 Special Topics in Lesbian, Gay, and Bisexual Literatures (3) Prerequisites: Two lower-level English courses, at least one in literature; or permission of department. Repeatable to 9 credits if content differs. Study of selected writers or particular themes in Lesbian, Gay, and Bisexual Literatures.

ENGL 360 African, Indian and Caribbean Writers (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Selected writers from countries formerly colonies of Britain, France, Denmark, etc. Attention to ways regions have developed distinctive political and aesthetic values resulting from indigenous traditions and foreign influences.

ENGL 362 Caribbean Literature in English (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Political and literary traditions that intersect in the fiction, poetry, and drama written in English by Caribbean writers, primarily during the 20th century.

ENGL 368 Special Topics in the Literature of Africa and the African Diaspora (3) Prerequisite: two lower-level courses, at least one in literature; or permission of department. Repeatable to 9 credits if content differs. Comparisons among the literary traditions in Africa, the Caribbean, and North and South America.

ENGL 370 Junior Honors Conference (1) Prerequisite: candidacy for honors in English. Preparation for writing the senior honors project.

ENGL 373 Senior Honors Project (2) Prerequisite: ENGL370. For ENGL majors only. Research and writing of senior honors project. Strongly recommended for students planning graduate work.

ENGL 377 Medieval Myth and Modern Narrative (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Not open to students who have completed ENGL361. Formerly ENGL 361. Literary patterns characteristic of medieval myth, epic, and romance; their continuing vitality in modern works; and links between Medieval works like "The Prose Edda", "Beowulf", "The Morte D'Arthur", "The Volsunga Saga", and "Grettis Saga" and modern narratives like Tolkien's "The Lord of the Rings".

ENGL 379 Special Topics in Literature (3) Prerequisite: two lower-level English courses, at least one in literature; or permission of department. Repeatable to 9 credits if content differs.
ENGL 381 MGA Legislative Seminar (3) Prerequisite: permission of department. Classroom analysis component of the Maryland General Assembly internship program.

ENGL 383 The Uses of Language (3) Exploration of the social and political aspects of language use, including conversational behavior, persuasive uses of language, social dialects, and language and gender; analytical methods of pragmatics/discourse analysis.

ENGL 384 Concepts of Grammar (3) Introduction to the basic units of grammatical description; motivation for and nature of constituent structure and syntactic categories; fundamental grammatical concepts employed in the teaching and learning of languages.

ENGL 385 English Semantics (3) An introductory study of meaning in language and paralanguage. General semantics, kinesics, linguistic relativity and recent developments in linguistic semantics.

ENGL 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

ENGL 388 Writing Internship (1-6) Prerequisite: permission of department. Repeatable to 9 credits. Credit will be granted for only one of the following: ENGL 380 or ENGL 388. Formerly ENGL 380. Field work in English.

ENGL 390 Science Writing (3) Prerequisite: 60 credits and completion of ENGL 101 or equivalent. This course satisfies the professional writing requirement. Junior standing. Not open to students who have completed ENGL 390 or ENGL 393S. Formerly ENGL 393S. Specifically designed for students interested in further study in the physical and biological sciences. Exposes students to the conventions of scientific prose in the genres of research articles and proposals. Students learn to accommodate scientific information to general audiences. Satisfies professional writing requirement.

ENGL 391 Advanced Composition (3) Prerequisite: 60 credits and completion of ENGL 101 or equivalent. This course satisfies the professional writing requirement. An advanced composition course which emphasizes constructing written arguments accommodated to real audiences.

ENGL 392 Legal Writing (3) Prerequisite: 60 credits and completion of ENGL 101 or equivalent. This course satisfies the professional writing requirement. Conventions of legal writing and research. Students learn how to read and write about cases, statutes or other legislation; how to apply legal principles to fact scenarios; and how to present a written analysis for readers in the legal profession. Assignments may include the law-school application essay, case briefs, legal memos, and client letters. Satisfies professional writing requirement.

ENGL 393 Technical Writing (3) Prerequisite: 60 credits and completion of ENGL 101 or equivalent. This course satisfies the professional writing requirement. The writing of technical papers and reports.

ENGL 394 Business Writing (3) Prerequisite: 60 credits and completion of ENGL 101 or equivalent. This course satisfies the professional writing requirement. Intensive practice in the forms of written communication common in the business world—letters, memos, short reports, and proposals. Principles of rhetoric and effective style.

ENGL 395 Writing for Health Professions (3) Prerequisite: 60 credits and completion of ENGL 101 or equivalent. This course satisfies the professional writing requirement. Focus on accommodating technical material and empirical studies to lay audiences, and helping writers to achieve stylistic flexibility and correctness.

ENGL 396 Intermediate Fiction Workshop (3) Prerequisite: permission of department. Practice in the craft of writing fiction, with special attention to the revision process. Selected readings, frequent writing exercises, workshop format.

ENGL 397 Intermediate Poetry Workshop (3) Prerequisite: permission of department. Practice in the craft of writing poetry, with special attention to the revision process. Selected readings, frequent writing exercises, workshop format.

ENGL 398 Topics in Professional Writing (3) Prerequisite: 60 credits and completion of ENGL 101 or equivalent. This course satisfies the professional writing requirement. Junior standing. Repeatable to 6 credits if content differs. Professional writing courses that focus on the audiences, conventions, and genres of particular disciplines, professions, or organizations. Examples include writing for the arts, writing case studies and investigative reports, writing about economics, and writing for non-profit organizations.

ENGL 399 Senior Seminar (3) Limited to graduating English majors, to be taken in the last year of the undergraduate program, normally following completion of the core courses. Topics will vary each semester; most will be interdisciplinary or will cross historical periods. The course will provide a seminar experience in

http://www.umd.edu/catalog/index.cfm/show/content.chapter/c/50/program/551
material or methodologies not otherwise available to the major.

**ENGL 402 Chaucer (3)** Prerequisite: two English courses in literature or permission of department. Works read in Middle English. Readings may include Canterbury Tales, Troilus and Criseyde, dream visions, lyrics.

**ENGL 403 Shakespeare: The Early Works (3)** Prerequisite: two English courses in literature or permission of department. Close study of selected works from the first half of Shakespeare's career. Generic issues of early histories, comedies, tragedies. Language, theme, dramatic technique, sources, and early modern English social-historical context.

**ENGL 404 Shakespeare: The Later Works (3)** Prerequisite: two English courses in literature or permission of department. Close study of selected plays from the second half of Shakespeare's career. Generic issues of later tragedies, later comedies, romances. Language, theme, dramatic technique, sources, and early modern English social-historical context.

**ENGL 407 Non-dramatic Literature of the Sixteenth Century (3)** Prerequisite: two English courses in literature or permission of department. Poetic and prose genres--utopia, epic, narrative, lyric, sonnet, oration, epistle, sermon, apologia--in context of the literary and intellectual life of the sixteenth century. Writers such as More, Wyatt, Surrey, Sidney, and Spenser.

**ENGL 408 Literature by Women Before 1800 (3)** Prerequisite: two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Also offered as WMST408. Credit will be granted for only one of the following: ENGL408 or WMST408. Selected writings by women in the medieval and early modern era.

**ENGL 410 Edmund Spenser (3)** Prerequisite: two English courses in literature or permission of department. Selected works of Edmund Spenser in their literary, social, and historical contexts. Special attention to The Faerie Queene; also sonnets and lyric poetry.

**ENGL 412 Literature of the Seventeenth Century, 1600-1660 (3)** Prerequisite: two English courses in literature or permission of department. Works from early Stuart through Interregnum period. Major literary genres in historical contexts. Writers such as Donne, Jonson, Mary Worth, Bacon, Browne, and Marvell.

**ENGL 414 Milton (3)** Prerequisite: two English courses in literature or permission of department. Poetry and major prose in their social, political, and literary-historical contexts. Special attention to Paradise Lost. Other works may include Samson Agonistes and shorter poems.

**ENGL 415 Literature of the Seventeenth Century, 1660-1700 (3)** Prerequisite: two English courses in literature or permission of department. English poetry, drama, fiction, and non-fiction written from the Restoration of Charles II to 1700. Attention to increasing literacy and publication and greater involvement by women in literary production. Authors include Milton, Dryden, Congreve, and Behn.

**ENGL 416 Literature of the Eighteenth Century, 1700-1750 (3)** Prerequisite: two English courses in literature or permission of department. British literary traditions, including the poetry of Pope, the prose of Swift, the correspondence of Montagu, the drama of Gay, and early novels by Defoe, Richardson, and Fielding.

**ENGL 417 Literature of the Eighteenth Century, 1750-1800 (3)** Prerequisite: two English courses in literature or permission of department. British poetry, drama, fiction, and nonfiction, emphasizing innovative forms and attitudes in genres such as the gothic novel and political writings, as well as more traditional works. Authors include Johnson, Burney, Sterne, Burke, and Wollstonecraft.

**ENGL 418 Major British Writers before 1800 (3)** Prerequisite: two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Two writers studied intensively each semester.

**ENGL 419 Major British Writers after 1800 (3)** Prerequisite: two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Two writers studied intensively each semester.

**ENGL 420 English Romantic Literature (3)** Prerequisite: two lower level English courses, at least one in literature; or permission of department. British poetry, drama, fiction, and criticism c.1790 to c.1830, a period of dramatic social change and revolution in literature, philosophy, the arts, industry, and politics. Authors include Austen, Wordsworth, Coleridge, Keats, Byron, Percy, and Mary Shelley.

**ENGL 422 English Victorian Literature (3)** Prerequisite: two lower level English courses, at least one in literature; or permission of department. A survey of English literature of the Victorian period. Writers may include Arnold, Browning, Tennyson, Dickens, George Eliot, Carlyle, Ruskin, Newman, Wilde.
ENGL 425 Modern British Literature (3) Prerequisite: two English courses in literature or permission of department. Major Modernist writers in English prose and poetry since 1900. Such writers as Eliot, Larkin, Forster, Burgess, Durrell, Henry Green, Golding, Auden, Malcolm Lowry, Joyce, and Yeats.

ENGL 428 Seminar in Language and Literature (3) Junior standing. For ENGL majors only. Repeatable to 9 credits if content differs. Topics will vary each semester. The course will provide a seminar experience in material or methodologies not otherwise available to the major.

ENGL 429 Independent Research in English (1-6) Prerequisite: ENGL301 and two English course (excluding fundamental studies requirement) and permission of department. Sophomore standing. Repeatable to 9 credits if content differs. An advanced independent research project for qualified students, supervised by an English faculty member, on a topic not ordinarily covered in available courses.

ENGL 430 American Literature, Beginning to 1810, the Colonial and Federal (3) Periods Prerequisite: two English courses in literature or permission of department. Puritanism, the Enlightenment, early Romanticism. Writers such as Bradstreet, Franklin, Brown.

ENGL 431 American Literature: 1810 to 1865, the American Renaissance (3) Prerequisite: two English courses in literature or permission of department. Nationalism, Sentimentalism, Transcendentalism. Writers such as Douglass, Stowe, Melville.

ENGL 432 American Literature: 1865 to 1914, Realism and Naturalism (3) Prerequisite: two English courses in literature or permission of department. Reconstruction, Realism, Naturalism. Representative writers such as Dickinson, James, Dreiser.

ENGL 433 American Literature: 1914 to the Present, the Modern Period (3) Prerequisite: two English courses in literature or permission of department. Modernism, Postmodernism. Writers such as Stevens, Stein, Ellison.

ENGL 434 American Drama (3) Prerequisite: two English courses in literature or permission of department. American drama from late eighteenth-century to the present; emphasis on theater of the twentieth century. Authors such as Tyler, O'Neill, Hellman, Hansberry, and Albee.

ENGL 435 American Poetry: Beginning to the Present (3) Prerequisite: two English courses in literature or permission of department. Selections of American poetry, from Bradstreet to contemporary free verse. Authors such as Whitman, Dickinson, Bishop, Hughes, Rich, and Frost.

ENGL 436 Contemporary American Literature (3) Prerequisite: two English courses in literature or permission of department. Prose, poetry, drama of living American writers. Current cultural and social issues.

ENGL 438 Major American Writers before 1865 (3) Prerequisite: two English courses in literature of permission of department. Repeatable to 9 credits if content differs. Two writers studied intensively each semester.

ENGL 439 Major American Writers after 1865 (3) Prerequisite: two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Two writers studied intensively each semester.

ENGL 440 The Novel in America to 1914 (3) Prerequisite: two English courses in literature or permission of department. Survey of the American novel to World War I. Cultural and philosophical contexts; technical developments in the genre. Authors such as Melville, Wells Brown, James, Sedgwick, Chopin.

ENGL 441 The Novel in America Since 1914 (3) Prerequisite: two English courses in literature or permission of department. Survey of the American novel since World War I. Cultural and philosophical contexts, technical developments in the genre. Authors such as Hemingway, Cather, Faulkner, Anne Tyler, Morrison.

ENGL 442 Literature of the South (3) Prerequisite: two English courses in literature or permission of department. Survey of fiction and poetry, especially the period 1900 to the present. Authors such as Faulkner, Welty, Glasgow, Wolfe, and Hurston.

ENGL 443 Afro-American Literature (3) Prerequisite: two English courses in literature or permission of department. An examination of the literary expression of the black American in the United States, from its beginning to the present.

ENGL 444 Feminist Critical Theory (3) Prerequisite: ENGL250 or WMST200 or WMST250. Also offered as WMST444. Credit will be granted for only one of the following: ENGL444 or WMST444. Issues in contemporary feminist thought that have particular relevance to textual studies, such as theories of language, literature, culture, interpretation, and identity.
ENGL 445 Modern British and American Poetry (3) Prerequisite: two English courses in literature or permission of department. The formation of Modernism in British and American poetry before 1930. Such poets as Yeats, Pound, H.D., Eliot, Langston Hughes, Moore, Stevens, and Williams.

ENGL 446 Post-Modern British and American Poetry (3) Prerequisite: two English courses in literature or permission of department. British and American poets from the 1930s to the present. Such poets as Auden, Williams, Plath, Brooks, Lowell, Wolcott, Ted Hughes, Bishop, Larkin, Jarrell, and Berryman.

ENGL 447 Satire (3) Prerequisite: two English courses in literature or permission of department. An introduction to English and American satire from Chaucer to the present.

ENGL 448 Literature by Women of Color (3) Prerequisite: two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Also offered as WMST448. Credit will be granted for only one of the following: ENGL448 or WMST448. Literature by women of color in the United States, Britain, and in colonial and post-colonial countries.

ENGL 449 Playwriting (3) Practice in writing one-act plays. Script development, production choices.

ENGL 450 Renaissance Drama I (3) Prerequisite: two English courses in literature or permission of department. Drama of the sixteenth century, from Sir Thomas More's circle through Lyly, Greene, Marlowe, and their successors. Interludes, school drama, comedy and tragedy, professional theater. Influences of humanism, Protestantism, politics, and cultural change.

ENGL 451 Renaissance Drama II (3) Prerequisite: two English courses in literature or permission of department. Drama in early decades of the seventeenth century. Playwrights include Jonson, Middleton, Marston, Webster, Beaumont and Fletcher. Tragedy, city comedy, tragicomedy, satire, masque. Pre-Civil War theatrical, political, and religious contexts.

ENGL 452 English Drama From 1660 to 1800 (3) Prerequisite: two English courses in literature or permission of department. Restoration and eighteenth-century drama, with special attention to theater history, cultural influences, concepts of tragedy, comedy, farce, parody, and burlesque, as well as dramatic and verbal wit.

ENGL 453 Literary Theory (3) Prerequisite: two literature courses. An in-depth study of literary and critical theory.

ENGL 454 Modern Drama (3) Prerequisite: two English courses in literature or permission of department. The origins and development of the British novel, from the late seventeenth century until the beginning of the nineteenth. Questions about what novels were, who wrote them, and who read them. Authors such as Behn, Defoe, Richardson, Fielding, Sterne, Smollett, Burney, Radcliffe, and Austen.

ENGL 455 The Eighteenth-Century English Novel (3) Prerequisite: two English courses in literature or permission of department. The origins and development of the British novel, from the late seventeenth century until the beginning of the nineteenth. Questions about what novels were, who wrote them, and who read them. Authors such as Behn, Defoe, Richardson, Fielding, Sterne, Smollett, Burney, Radcliffe, and Austen.

ENGL 456 The Nineteenth-Century English Novel (3) Prerequisite: two English courses in literature or permission of department. Surveys major novels of the period. Attention to narrative form and realism; representations of gender and class; social contexts for reading, writing and publishing. Authors such as Austen, Bronte, Dickens, George Eliot, Trollope.

ENGL 457 The Modern Novel (3) Prerequisite: two English courses in literature or permission of department. Modernism in the novel of the twentieth century. Such writers as Joyce, Lawrence, Murdoch, James, Forster, Faulkner, Hemingway, Fitzgerald, Ellison, Welty, Nabokov and Malamud.

ENGL 458 Literature after 1800 (3) Prerequisite: two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Also offered as WMST458. Credit will be granted for only one of the following: ENGL458 or WMST458. Selected writings by women after 1800.

ENGL 459 Selected Topics in Sexuality and Literature (3) Prerequisite: Two lower-level English courses, at least one in literature; or permission of department. Repeatable to 9 credits if content differs. Detailed study of sexuality as an aspect of literary and cultural expression.

ENGL 461 Folk Narrative (3) Personal history narrative; studies in legend, tale and myth.

ENGL 462 Folksong and Ballad (3) A cross-section of American folk and popular songs in their cultural contexts; artists from Bill Monroe to Robert Johnson.
ENGL 463 American Folktale (3) An examination of American folklore in terms of history and regional folk cultures. Exploration of collections of folklore from various areas to reveal the difference in regional and ethnic groups as witnessed in their oral and literary traditions.

ENGL 464 African-American Folklore and Culture (3) The culture of African Americans in terms of United States history (ante-bellum to the present) and social changes (rural to urban). Exploration of aspects of African-American culture and history via oral and literary traditions and life histories.

ENGL 465 Theories of Sexuality and Literature (3) Prerequisite: Two lower-level English courses, at least one in literature; or permission of department. An in-depth study of the ways in which sexuality and sexual difference create or confound the conditions of meaning in the production of literary texts. Attention to psychoanalysis, history of sexuality, feminist theory, and other accounts of sexual identity.

ENGL 466 Arthurian Legend (3) Prerequisite: two English courses in literature or permission of department. Development of Arthurian legend in English and continental literature from Middle Ages to twentieth century. All readings in modern English.

ENGL 467 Computer and Text (3) Prerequisite: One English course in literature or permission of department. Examines electronic literature and other aspects of digital textuality. Topics may include interactive fiction, hypertext, image and sound works, literary games and simulations. Emphasis on critical and theoretical approaches rather than design or programming.

ENGL 468 American Film Directors (3-9) Prerequisite: one college-level film course. Repeatable to 9 credits if content differs. A study of two or more American filmmakers in an analytic cultural context.

ENGL 469 Honors Seminar: Alternative Traditions (4-5) Prerequisite: permission of Director of English Honors. Repeatable to 9 credits if content differs. Yearlong seminar focusing on a selected literary, cultural, or social topic that features texts and/or critical perspectives outside the traditional canon.

ENGL 470 African-American Literature: The Beginning to 1910 (3) Prerequisite: two English courses in literature or permission of department. Beginnings of African-American literature including origins of literary expression in folk tales, songs, and spirituals; slave narratives; pamphlets, essays and oratory; and the emergence of poetry and fiction. Emphasis is on interaction between literary forms and the salient political issues of the day.

ENGL 471 African-American Literature: 1910-1945 (3) Prerequisite: two English courses in literature or permission of department. Emergence of modernism in African-American writing including debates over the definition of unique African-American aesthetics, with emphasis on conditions surrounding the production of African-American literatures.

ENGL 472 African-American Literature: 1945 to Present (3) Prerequisite: two English courses in literature or permission of department. Transformation of African-American literatures into modern and postmodern forms. Influenced by World War II and the Civil Rights and Black Power movements, this literature is characterized by conscious attempts to reconnect literary and folk forms, the emergence of women writers, and highly experimental fiction.

ENGL 475 Postmodern Literature (3) Prerequisite: two lower level English classes, one in literature. Sophomore standing. The origins and ongoing development of postmodern literature. Aspects of the "postmodern condition," such as the collapse of identity, the erasure of cultural and aesthetic boundaries, and the dissolution of life into textuality. The novel and other genres and media.

ENGL 476 Studies in Mythmaking (3) Prerequisite: two literature courses. Major themes, figures, and configurations of northern European mythology, examining the value of the mythic mode of thought in a scientific era.

ENGL 478 Selected Topics in English and American Literature before 1800 (1-3) Prerequisite: two English courses in literature or permission of department. Repeatable if content differs.

ENGL 479 Selected Topics in English and American Literature after 1800 (3) Prerequisite: two English courses in literature or permission of department. Repeatable if content differs.

ENGL 482 History of the English Language (3) Prerequisite: ENGL280 or LING200 or permission of department. Origin and development of the English language.

ENGL 483 American English (3) Prerequisite: ENGL280 or LING200 or permission of department. Origins and development of the various dialects of English spoken in the United States.

ENGL 484 Advanced English Grammar (3) Credit will be granted for only one of the following: ENGL484 or LING402. Advanced study of grammatical description.
ENGL 486 Introduction to Old English (3) Prerequisite: two English courses in literature or permission of department. Grammar, syntax, and phonology of Old English. Works read in the original language. Poetry may include "Battle of Maldon," "Dream of the Rood," "Wanderer," "Seafarer," riddles; prose of Bede, Wulfstan, Aelfric, and other writers of Anglo-Saxon period in England.

ENGL 487 Foundations of Rhetoric (3) Credit will be granted for only one of the following: ENGL487 or COMM401. Principles and approaches to the theory, criticism, and historical understanding of rhetorical discourse.

ENGL 488 Topics in Advanced Writing (3) Repeatable to 9 credits if content differs. Different genres of technical and professional writing including proposal writing, computer documentation, technical report writing, instruction manuals, etc. Students will analyse models of a genre, produce their own versions, test, edit and revise them.

ENGL 489 Special Topics in English Language (3) Repeatable to 9 credits if content differs. Current topics in language, such as linguistics, history of rhetoric, and composition studies.

ENGL 493 Advanced Expository Writing (3) Prerequisite: satisfactory completion of professional writing requirement. Writing processes and documents most necessary for professional writers.

ENGL 494 Editing and Document Design (3) Prerequisite: ENGL391, ENGL393 or equivalent. Principles of general editing for clarity, precision and correctness. Applications of the conventions of grammar, spelling, punctuation and usage, and organization for logic and accuracy. Working knowledge of the professional vocabulary of editing applied throughout the course.

ENGL 495 Independent Study in Honors (1-3) Prerequisites: Candidacy for honors in English and ENGL370 and ENGL373. For ENGL majors only. Completion and presentation of the senior honors project.

ENGL 498 Advanced Fiction Workshop (3) Prerequisite: ENGL396 or permission of department. Repeatable to 9 credits if content differs. Formerly ENGL 496. Practice in the craft of writing fiction, with emphasis on the revision process. Students encouraged to experiment with a variety of subjects, voices, and forms. Selected readings, frequent writing exercises, workshop format.

ENGL 499 Advanced Poetry Workshop (3) Prerequisite: ENGL397 or permission of department. Repeatable to 9 credits if content differs. Formerly ENGL 497. Practice in the craft of writing poetry, with emphasis on the revision process. Students encouraged to experiment with a variety of subjects, forms, and literary conventions. Selected readings, frequent writing exercises, workshop format.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

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Use the search box below to view the approved courses.

Select Program: ENMA - Engineering, Materials

Course Number: 

Search

Courses in "ENMA-Engineering, Materials"

**ENMA - Engineering, Materials**

**ENMA 181 Introduction to Nanotechnology (1)** Freshman standing. Seminar introducing nanotechnology and the conceptual and analytical challenges for developing future nanomaterials. Class activities and guest lectures cover the role of nanomaterials in materials science and engineering.

**ENMA 300 Introduction to Materials and their Applications (3)** Prerequisite: ENES100 or permission of department. Corequisite: MATH241. Recommended: PHYS260 and PHYS261. Not open to students who have completed ENES230. Credit will be granted for only one of the following: ENES230 or ENMA300. Structure of materials, chemical composition, phase transformations, corrosion and mechanical properties of metals, ceramics, polymers and related materials. Materials selection in engineering applications.
ENMA 310 Materials Laboratory I: Structural Characterization (3) One hour of lecture and six hours of laboratory per week. Prerequisite: ENES230. Corequisite: ENMA460. Junior standing. Characterization of the structure of materials including both single crystal and polycrystalline materials. Laboratories will include x-ray and electron diffraction and microscopy.

ENMA 311 Materials Laboratory II: Electromagnetic Properties (3) One hour of lecture and six hours of laboratory per week. Prerequisites: ENMA310 and ENMA460. Junior standing. Characterization of the electromagnetic properties of materials. Laboratories will include measurements of electrical and transport properties, index of refraction, and magnetic properties.


ENMA 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

ENMA 420 Intermediate Ceramics (3) Prerequisites: ENES230, ENMA470, and ENMA471 or permission of department. To introduce basic concepts such as crystal chemistry, defect chemistry and ternary phase equilibria which can also be used to illustrate the various types of advanced ceramics (superconductors; superionic conductors; dielectrics including ferroelectrics; optical materials; high temperature structural materials; etc.) and allow an understanding of their behaviors.

ENMA 421 Design of Composites (3) Prerequisite: permission of department. Credit will be granted for only one of the following: ENMA421 or ENMA489A. Formerly ENMA 489A. Fundamentals of design, processing and selection composite materials for structural applications will be covered. The topics include a review of all classes of materials, an in-depth analysis of micro and macro mechanical behavior including interactions at the two-phase interfaces, modeling of composite morphologies for optimal microstructures, material aspects, cost considerations, processing methods including consideration of chemical reactions and stability of the interfaces, and materials selection considerations.

ENMA 422 Radiation Effects of Materials (3) Prerequisite: ENNU215, ENNU310, or ENES230; or permission of department. Credit will be granted for only one of the following: ENMA422 or ENMA489E. Formerly ENMA 489E. Ionizing radiation, radiation dosimetry and sensors, radiation processing, radiation effects on: polymers, metals, semiconductors, liquids, and gases. Radiation in advanced manufacturing, radiation-physical technology.

ENMA 423 Manufacturing with Polymers (3) Prerequisite: ENES230 or permission of department. Credit will be granted for only one of the following: ENMA423 and ENMA489R. Formerly ENMA 489R. Study of the process of engineering design and development of polymer formulations. Knowledge of commodity polymers and their physical properties, ability to design an extrusion process, develop the economics of a polymer manufacturing process, develop a working knowledge of characterization techniques for determination of physical and mechanical properties of polymers.

ENMA 425 Introduction to Biomaterials (3) Prerequisite: permission of department. Recommended: ENES230. Credit will be granted for only one of the following: ENMA489W or ENMA425. Formerly ENMA 489W. Examination of materials used in humans and other biological systems in terms of the relationships between structure, fundamental properties and functional behavior. Replacement materials such as implants, assistive devices such as insulin pumps and pacemakers, drug delivery systems, biosensors, engineered materials such as artificial skin and bone growth scaffolds, and biocompatibility will be covered.

ENMA 443 Photonic Materials, Devices and Reliability (3) Prerequisite: permission of department. Junior standing. Credit will be granted for only one of the following: ENMA443 or ENMA489Z. Formerly ENMA 489Z. The course focuses on the understanding of the basic optical processes in semiconductors, dielectrics and organic materials. The application of such materials in systems composed of waveguides, light emitting diodes and lasers, as well as modulators is developed.

ENMA 460 Physics of Solid Materials (3) Prerequisites: MATH241 and (PHYS270 and 271 (Formerly PHYS263)). Junior standing. For ENMA majors only. Also offered as PHYS431. Credit will be granted for only one of the following: ENMA460 or PHYS431. Classes of materials; introduction to basic ideal and real materials’ behavior including mechanical, electrical, thermal, magnetic and optical responses of materials; importance of microstructure in behavior. One application of each property will be discussed in detail.

ENMA 461 Thermodynamics of Materials (3) Prerequisite: ENES230. Junior standing. Thermodynamic aspects of materials; basic concepts and their application in design and processing of materials and systems. Topics include: energy, entropy, adiabatic and isothermal processes, internal and free energy, heat capacity, phase equilibria and surfaces and interfaces.

ENMA 464 Environmental Effects on Engineering Materials (3) Prerequisite: ENES230 or permission of both department and instructor. Introduction to the phenomena associated with the resistance of materials to damage under severe environmental conditions. Oxidation, corrosion, stress corrosion, corrosion fatigue and radiation damage are examined from the point of view of mechanism and influence on the properties of materials. Methods of corrosion protection and criteria for selection of materials for use in radiation environments.

ENMA 465 Microprocessing Materials (3) Prerequisite: ENES230. Also offered as ENMA489B. Credit will be granted for only one of the following: ENMA363, ENMA489B, or ENMA465. Formerly ENMA 363. Micro and nanoscale processing of materials. Emphasis on thin film processing for advanced technologies.

ENMA 471 Kinetics, Diffusion and Phase Transformations (3) Pre- or corequisite: ENMA461. Junior standing or permission of department. Fundamentals of diffusion, the kinetics of reactions including nucleation and growth and phase transformations in materials.


ENMA 481 Introduction to Electronic and Optical Materials (3) Prerequisite: ENES230 or equivalent. Electronic, optical and magnetic properties of materials. Emphasis on materials for advanced optoelectronic and magnetic devices and the relationship between properties and the processing/fabrication conditions.

ENMA 489 Selected Topics in Engineering Materials (3) Prerequisite: permission of department. Repeatable to 12 credits if content differs. To introduce basic concepts such as crystal chemistry, defect chemistry and ternary phase equilibria which can also be used to illustrate the various types of advanced ceramics (superconductors; superionic conductors; dielectrics including ferroelectrics; optical materials; high temperature structural materials; etc.) and allow an understanding of their behaviors.

ENMA 490 Materials Design (3) One hour of lecture and six hours of laboratory per week. Senior standing. Capstone design course. Students work in teams on projects evaluating a society or industry based materials problem and then design and evaluate a strategy to minimize or eliminate the problem; includes written and oral presentations.

ENMA 495 Polymeric Engineering Materials I (3) Prerequisite: ENES230. Also offered as ENCH490. Credit will be granted for only one of the following: ENCH490 or ENMA495. Study of polymeric engineering materials and the relationship to structural type. Elasticity, viscoelasticity, anelasticity and plasticity of single and multiphase materials. Emphasis is on polymeric materials.

ENMA 496 Processing and Engineering of Polymers (3) Prerequisite: ENMA495. Also offered as ENCH496. Credit will be granted for only one of the following: ENCH496 or ENMA496. Processing and engineering techniques for the conversion of polymeric materials into products are discussed. Processes considered include forming, bonding and modification operations. The effect of processing on the structure and properties of polymeric materials is emphasized.

ENMA 499 Senior Laboratory Project (1-3) Senior standing. Students work with a faculty member on an individual laboratory project in one or more of the areas of engineering materials. Students will design and carry out experiments, interpret data and prepare a comprehensive laboratory report.
Chapter 8: Approved Courses

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Select Program: ENME - Engineering, Mechanical

Course Number: 

Courses in "ENME-Engineering, Mechanical"

ENME - Engineering, Mechanical


ENME 232 Thermodynamics (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: PHYS260 and PHYS261 (Formerly: PHYS262). Introduction to thermodynamics. Thermodynamic properties of matter. First and second laws of thermodynamics, cycles, reactions, and mixtures.

ENME 271 Introduction to Matlab (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ENES221. Develop the skills to generate readable, compact and verifiably correct MATLAB scripts.
and functions to obtain numerical solutions to a wide range of engineering models and to display the results
with fully annotated graphics. Learn structured programming.

**ENME 320 Thermodynamics (3)** Prerequisites: MATH141; and (PHYS260 and PHYS261). The properties, characteristics and fundamental equations of gases and vapors. Application of the first and second laws of thermodynamics in the analysis of basic heat engines, air compression vapor cycles. Flow and non-flow processes for gases and vapors.


**ENME 350 Electronics and Instrumentation I (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: PHYS270 and 271 (Formerly PHYS263). Credit will be granted for only one of the following: ENME252 or ENME350. Formerly ENME 252. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

**ENME 351 Electronics and Instrumentation II (3)** Two hours of lecture and two hours of laboratory per week. Prerequisites: ENME350 and (PHY 270 and 271 {Formerly PHYS263}). Continuation of ENME 350. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing of analog circuits. Laboratory experiments.

**ENME 361 Vibration, Controls and Optimization I (3)** Two hours of lecture and two hours of laboratory per week. Prerequisites: ENES220, ENES221, ENME271, and MATH246. For ENME majors only. Fundamentals of vibration, controls and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical description of system response, system stability, control and optimization. Optimal design of mechanical systems.

**ENME 371 Product Engineering and Manufacturing (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: ENME221, ENME392, or STAT400. For ENME majors only. Business aspects of engineering product development. Relationship of design and manufacturing. Product specification. Statistical process control. Design team development. The development process.

**ENME 382 Engineering Materials and Manufacturing Processes (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: ENES220. Basic material structures and properties. Mechanical behavior of materials. Manufacturing processes theory. Materials processing. Quality assurance. Laboratory experiments.

**ENME 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**ENME 392 Statistical Methods for Product and Processes Development (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: MATH241. Integrated statistical methodology for the improvement of products and processes in terms of performance, quality and cost. Designed experimentation. Statistical process control. Software application. Laboratory activities.

**ENME 398 Honors Research Project (1-3)**


**ENME 408 Selected Topics in Engineering Design (3)** Prerequisite: senior standing in mechanical engineering or permission of department. Repeatable to 6 credits if content differs. Creativity and innovation in design. Generalized performance analysis, reliability and optimization as applied to the design of components and engineering systems. Use of computers in design of multivariable systems.

**ENME 414 Computer-Aided Design (3)** Prerequisite: MATH241 or equivalent. Introduction to computer graphics. Plotting and drawing with computer software. Principles of writing interactive software. The applications of computer graphics in computer-aided design. Computer-aided design project.

**ENME 423 Building Cooling Heating and Power Systems (3)** Prerequisite: ENME232 and ENME332. Introduction to the evaluation of cooling, heating and power requirements of buildings. Description, design and evaluation of state-of-the-art and emerging integrated cooling, heating and power systems (engines,
ENME 462 Vibrations, Controls, and Optimization II (3) Two hours of lecture and two hours of discussion/recitation per week. Prerequisites: ENME351 and ENME361. Formerly ENME 362. Continuation of ENME 361. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical descriptions of system response, system stability, control and optimization. Optimal design of mechanical systems.

ENME 465 Introductory Fracture Mechanics (3) Senior standing in engineering. An examination of the concepts of fracture in members with pre-existing flaws. Emphasis is primarily on the mechanics aspects with the development of the Griffith theory and the introduction of the stress intensity factor, K, associated with different types of cracks. Fracture phenomena are introduced together with critical values of the fracture toughness of materials. Testing procedures for characterizing materials together with applications of fracture mechanics to design.

ENME 470 Finite Element Analysis (3) Senior standing. Basic concepts of the theory of the finite element method. Applications in solid mechanics and heat transfer.


ENME 473 Mechanical Design of Electronic Systems (3) Prerequisites: ENME310; and ENME360; and ENME321. Design considerations in the packaging of electronic systems. Production of circuit boards and design of electronic assemblies. Vibration, shock, fatigue and thermal considerations.

ENME 474 Design in Electronic Product Development (3) Prerequisite: ENME473. Merges technology, analysis, and design concepts into a single focused activity that results in the completed design of an electronic product. A set of product requirements are obtained from an industry partner, the students create a specification for the product, iterate the specification with the industry partner, then design and analyze the product. Students will get hands-on experience using real design implementation tools for requirements capture, tradeoff analysis, scheduling, physical design and verification. Issues associated with transferring of the design to manufacturing and selection of manufacturing facilities will also be addressed.

ENME 476 Microelectromechanical Systems (MEMS) I (3) Three hours of lecture and one hour of laboratory per week. Senior standing. Credit will be granted for only one of the following: ENME476 or ENME489F. Formerly ENME 489F. Fundamentals of microelectromechanical systems (MEMS). Introduction to transducers and markets. MEMS fabrication processes and materials, including bulk micromachining, wet etching, dry etching, surface micromachining, sacrificial layers, film deposition, bonding, and non-traditional micromachining. Introduction to the relevant solid state physics, including crystal lattices, band structure, semiconductors, and doping. The laboratory covers safety, photolithography, profilometry, wet etching.

ENME 477 Microelectromechanical Systems (MEMS) II (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: ENME476. Fabrication of devices designed in MEMS I, including everything from mask printing through training on state-of-the-art fabrication equipment through device testing. In-depth understanding of MEMS devices and technologies, such as mechanical and electromagnetic transducers, microfluidics, and chemical sensors.

ENME 488 Special Problems (3) Prerequisite: permission of department. Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods.

ENME 489 Special Topics in Mechanical Engineering (3) Prerequisite: permission of department. Repeatable to 6 credits with permission of advisor. Selected topics of current importance in mechanical engineering.

ENME 490 Mechanical Engineering Honors Seminar (1) Prerequisite: Permission of the Mechanical Engineering Honors Program. For ENME majors only. New trends and technologies in Mechanical Engineering.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: ENNU - Engineering, Nuclear

Course Number:  

Search

Courses in "ENNU-Engineering, Nuclear"

ENNU - Engineering, Nuclear

ENNU 215 Introduction to Nuclear Technology (3) Prerequisites: MATH141; and PHYS161. Engineering problems of the nuclear energy complex, including basic theory, use of computers, nuclear reactor design and isotopic and chemical separations.

ENNU 310 Environmental Aspects of Nuclear Engineering (3) Prerequisites: (MATH241 or MATH246; and (PHYS270 and 271 (Formerly PHYS263)) or PBD. Evaluation of environmental and safety aspects of nuclear power reactors. Calculations of radioactive decay, activation, shielding, radiation monitoring. Biological effects of radiation, waste handling, siting, plant design and operations, as related to environment safety and licensing regulations.

ENNU 386 Experiential Learning (2-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

ENNU 398 Honors Research Project (1-3)

ENNU 440 Nuclear Technology Laboratory (3) One hour of lecture and four hours of laboratory per week. Prerequisites: MATH240; and PHYS263. Techniques of detecting and making measurements of nuclear or high energy radiation. Radiation safety experiments. Both a subcritical reactor and the swimming pool critical reactor are sources of radiation.


ENNU 442 Nuclear Engineering Laboratory II (1) One hour of lecture and two hours of laboratory per week. Prerequisite: ENNU441. Corequisite: ENNU455. Principles of radiation detectors and electronics. Use of Maryland University Training Reactor for criticality experiments and activation analysis. Fundamental heat transfer experiments. Data acquisition and analysis.

ENNU 443 Nuclear Engineering Laboratory III (1) One hour of lecture and two hours of laboratory per week. Prerequisites: ENNU441 and ENNU442. Heat transfer, fluid flow, boiling experiments. Applications to reactor systems and components. Observation of thermalhydraulic phenomena. Gamma shielding analysis.

ENNU 450 Nuclear Reactor Engineering I (3) Prerequisites: (MATH246 and {PHY 270 and 271 (Formerly PHYS263)})) or permission of both department and instructor. Elementary nuclear physics, reactor theory, and reactor energy transfer. Steady-state and time-dependent neutron distributions in space and energy. Conduction and convective heat transfer in nuclear reactor systems.

ENNU 455 Nuclear Reactor Engineering II (3) Prerequisite: ENNU450. General plant design considerations including radiation hazards and health physics, shielding design, nuclear power economics, radiation effects on reactor materials, and various types of nuclear reactor systems.

ENNU 465 Nuclear Reactor Systems Analysis (3) Prerequisites: (MATH246; and {PHY 270 and 271 (Formerly PHY 263); and ENNU 455}) or permission of both department and instructor. Power reactor (BWR,PWR,HTGR) system design and analysis. System specifications and modes of operation. Plant documentation (PSAR,FSAR, etc.). Piping and instrumentation drawings. Theory and application of pump and piping calculations. Steam power plant cycles and calculations. Steam plant equipment (turbines, heaters, condensers, etc.) analysis.

ENNU 468 Research (2-3) Prerequisite: permission of both department and instructor. Repeatable to 6 credits. Investigation of a research project under the direction of one of the staff members. Comprehensive reports are required.

ENNU 480 Reactor Core Design (3) Prerequisite: ENNU450 or permission of both department and instructor. Design of nuclear reactor cores based on a sequence of standard computer codes. Thermal and epithermal cross sections, multigroup diffusion theory in one and two dimensions and fine structure flux calculations using transport theory.


ENNU 489 Special Topics in Nuclear Engineering (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Selected topics of current importance in nuclear engineering.

ENNU 490 Nuclear Fuel and Power Management (3) Prerequisites: {ENNU460; and ENNU480} or permission of both department and instructor. Physics and economics of the nuclear fuel cycle utilizing existing design codes. Mining, conversion, enrichment, fabrication, reprocessing processes. Effects of plutonium recycle, in-core shuffling, fuel mechanical design and power peaking on fuel cycle costs.

ENNU 495 Nuclear Engineering Systems Design (3) Two hours of lecture and three hours of laboratory per week. Prerequisites: ENNU455 and ENNU480 and Senior standing in nuclear engineering. Senior capstone design course. Major design experience that emphasizes putting student's engineering knowledge into practice. Design topic is one of current interest in nuclear engineering. Design methodology, creativity,
feasibility, reliability, and economic analyses of the overall design required. Students work in teams, and present oral and written design reports.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: ENPM - Engineering, Professional Masters

Course Number: __________  Search

Courses in "ENPM-Engineering, Professional Masters"

ENPM - Engineering, Professional Masters

ENPM 489 Special Topics in Engineering (1-6) Repeatable to 12 credits if content differs. Special topics selected by the faculty for students in the Professional Master of Engineering Program.

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Select Program: ENRE - Reliability Engineering

Course Number: 

Search

Courses in "ENRE-Reliability Engineering"

ENRE - Reliability Engineering

ENRE 445 Applied Reliability Engineering I (3) Prerequisite: MATH246, PHYS270 and 271 (Formerly: PHYS263), or permission of instructor. Credit will be granted for only one of the following: ENRE445 or ENRE489C. Formerly ENRE 489C. Topics covered include: fundamental understanding of how things fail, probabilistic models to represent failure phenomena, life-models for non-repairable items, reliability data collection and analysis and applicable quality techniques. Distribution functions such as the normal, Weibull, exponential, binomial, and gamma are explored.

ENRE 446 Applied Reliability Engineering II (3) Prerequisite: MATH246, PHYS270 and 271 (Formerly: PHYS263), or permission of instructor. Credit will be granted for only one of the following: ENRE446 or ENRE489D. Formerly ENRE 489D. Topics covered include: System modeling and analysis, designing for
reliability, reliability testing, reliability in manufacturing, and reliability management. Fault tree analysis, RBD, and cut sets are covered along with sneak circuits, time-on-test plots and acceptance testing.

**ENRE 447 System Safety Engineering (3)** Prerequisite: MATH246 and (PHYS270 and 271 (Formerly: PHYS263)) or permission of department. Credit will be granted for only one of the following: ENRE447 or ENRE467. Formerly ENRE 467. Role of system safety, the language of system safety, and programs for achieving safety, such as the problem solving process, safety criteria, safety descriptors, checklist-timeliness elements, safety training, hazard analysis and uncertainty in safety measurements. Time-phased indicators, hazard nomenclature, hazard mode and effect analysis, hazard classification, hazard probability, survival rate, distributions applied to human performance.

**ENRE 452 Software Testing (3)** Prerequisite: CMSC114 or CMSC214; and CMSC/MATH475 or MATH461; or permission of department. Topics covered include: Methods for unit testing, and system testing; Structural testing (flowgraphs and data-flows); Functional testing (behavioral models and textual descriptions); Deterministic and statistical generation of inputs; testing of object-oriented programs.

**ENRE 489 Special Topics in Reliability Engineering (3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs. Selected topics of current importance in reliability engineering.

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**Select Program:** ENSP - Environmental Science and Policy

**Course Number:**

*Courses in “ENSP-Environmental Science and Policy”*

**ENSP - Environmental Science and Policy**

**ENSP 101 Introduction to Environmental Science (3)** Three hours of lecture and one hour of discussion/recitation per week. Not open to students who have completed BSCI235 or PBO205. One of two required courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on scientific ways of knowing; the systems, cycles, flows, and interfaces that characterize the atmosphere, lithosphere, hydrosphere, and biosphere; the analysis of human impacts on these systems; and the nature of scientific uncertainty and methods of quantifying environmental processes.

**ENSP 102 Introduction to Environmental Policy (3)** Three hours of lecture and one hour of discussion/recitation per week. Second of two courses that introduce students to the topics studied and methods employed in environmental science and policy. Emphasis on the process of formulating,
implementing, and evaluating policy responses to environmental problems, with particular attention to policy controversies related to scientific uncertainty, risk assessment, the valuation of nature, and distributional equity. May be taken before or after ENSP101.

**ENSP 210 Environment-Related Careers: Academic and Career Exploration (1)** Not open to students who have completed more than 60 credits. Credit will be granted for only one of the following: CPSP118E or ENSP210. Explore environment-related majors and careers. Begin academic planning and professional development activities. A course for freshmen and sophomores.

**ENSP 386 Internship (3-6)** Prerequisite: internship proposal approved by the specialty advisor, the director of ENSP and the student's internship sponsor.

**ENSP 399 Special Topics in Environmental Science and Policy (1-3)** Restricted to ENSP majors or permission of department. Repeatable to 12 credits if content differs. A substantive and specialized examination of contemporary issues in environmental science or policy.

**ENSP 400 Capstone in Environmental Science and Policy (3)** Prerequisite: Senior Standing or Permission of the Director of ENSP; ENSP101 and 102. For ENSP majors only. Integration of physical, biological, and social sciences with applications to environmental science and policy. Problem-solving and multi-disciplinary case study evaluations pertinent to contemporary and future issues related to the environment.

**ENSP 499 Honors Thesis Research (1-6)** Prerequisite: Admission to ENSP Honors and permission of department. Repeatable to 6 credits. Individual research, thesis, and oral defense. The research project will be conducted under the supervision of a faculty member.

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Use the search box below to view the approved courses.

Select Program: ENST - Environmental Science and Technology

Course Number:

Search

Courses in "ENST-Environmental Science and Technology"

ENST - Environmental Science and Technology

ENST 100 International Crop Production-Issues and Challenges in the 21st Century (3) Credit will be granted for only one of the following: ENST100 or NRSC100. Formerly NRSC 100. Examines the role of crop production in elevating humans out of poverty in developing countries. It will introduce students to the basic principles of plant and soil science underlying the international production of food crops and world food security. The role of multinational agencies such as the World Bank in the promotion of sustainable crop production using environmentally-sound technologies will also be discussed.

ENST 105 Soil and Environmental Quality (3) Credit will be granted for only one of the following: ENST105 or NRSC105. Formerly NRSC 105. Soil as an irreplaceable natural resource, the importance of soils in the ecosystem, soils as sources of pollution, and soils as the media for the storage, assimilation or
inactivation of pollutants. Acid rain, indoor radon, soil erosion and sedimentation, nutrient pollution of waters, homeowners' problems with soils, and the effect of soils on the food chain.

**ENST 200 Fundamentals of Soil Science (4)** Prerequisite: CHEM103, or CHEM131 and CHEM132; or permission of department. Credit will be granted for only one of the following: ENST200 or NRSC200. Formerly NRSC 200. Study and management of soils as natural bodies, media for plant growth, and ecosystem components. Morphology, composition, formation, and conservation of soils. Chemical, biological, and physical properties are discussed in relation to the production of plants, the functioning of hydrologic and nutrient cycles, the protection of environmental quality, and engineering uses of soils.

**ENST 308 Field Soil Morphology (1-2)** One hour of lecture and two hours of laboratory per week. Prerequisite: permission of department. Repeatable to 4 credits. Formerly NRSC 308. Intensive field study of soils with particular emphasis on soil morphology, soil classification, and agricultural and urban soil interpretations. Focus in fall semesters is on soils of the Northeast U.S. Focus in spring semesters is on soils outside the Northeast region. The lab period is devoted to field trips, and student efforts culminate in a mandatory extended field trip.

**ENST 388 Honors Thesis Research (3-6)** Prerequisite: admission to AGNR Honors Program. Repeatable to 6 credits if content differs. Formerly NRSC 388. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

**ENST 389 Internship (1-3)** Prerequisite: permission of department. For NRSC and LARC majors only. Repeatable to 6 credits if content differs. Formerly NRSC 389. Credit will be given for practical work carried out at one or more horticultural, agronomic, landscape industries, botanical gardens, or arboreta under formally arranged internships.

**ENST 398 Seminar (1)** Prerequisite: Senior standing. For NRSC and LARC majors only. Formerly NRSC 398. Oral presentation of the results of investigational work by reviewing recent scientific literature in the various phases of natural resource sciences, horticulture and agronomy.

**ENST 405 Energy and Environment (3)** Prerequisite: MATH140 or MATH220. Junior standing. Credit will be granted for only one of the following: ENST405, NMRT489Z, or MEES698Z. Formerly NRMT 489Z. Introduction to the role of energy in environmental and human-dominated systems. Discussion of the historical and modern production and consumption of energy. Introduction to energy systems computer simulation and energy auditing.

**ENST 411 Principles of Soil Fertility (3)** Prerequisite: ENST200 or equivalent. Credit will be granted for only one of the following: ENST411 or NRSC411. Formerly NRSC 411. Soil factors affecting plant growth and quality with emphasis on the bio-availability of mineral nutrients. The management of soil systems to enhance plant growth by means of crop rotations, microbial activities, and use of organic and inorganic amendments.

**ENST 413 Soil and Water Conservation (3)** Three hours of lecture and two hours of laboratory per week. Prerequisite: ENST200 (formerly NRSC200). Credit will be granted for only one of the following: ENST413 or NRSC413. Formerly NRSC 413. Importance and causes of soil erosion and methods of soil erosion control. Effects of conservation practices on soil physical properties and the plant root environment. Irrigation and drainage as related to water use and conservation.

**ENST 414 Soil Morphology, Genesis and Classification (4)** Three hours of lecture and three hours of laboratory per week. Prerequisite: ENST200 (formerly NRSC200). Credit will be granted for only one of the following: ENST414 or NRSC414. Formerly NRSC 414. Processes and factors of soil genesis. Taxonomy of soils of the world by U.S. System. Soil morphological characteristics, composition, classification, survey and field trips to examine and describe soils.

**ENST 415 GIS Application in Soil Science (4)** Two hours of lecture and three hours of laboratory per week. Prerequisite: ENST200 (formerly NRSC200). Credit will be granted for only one of the following: ENST415 or NRSC415. Formerly NRSC 415. Introduction to geospatial analysis of soil and related resources. Topics will include understanding the nature and portrayal of digital soils data in soil surveys, the use, analysis, and application of soil survey and other spatial data types (topography, hydrography, etc.), uncertainty and validation of spatial data, and methods in geospatial analysis such as mapping, landscape analysis, and spatial statistics. Analyses will be performed primarily with ESRI ArcGIS software.

**ENST 417 Soil Hydrology and Physics (3)** Prerequisites: ENST200 (formerly NRSC200) and a course in physics; or permission of department. Credit will be granted for only one of the following: ENST417 or NRSC417. Formerly NRSC 417. A study of soil water interactions: the hydrologic cycle; the unique properties of water and soil; the soil components and their interactions; the field water cycle; transport processes involving water, heat and solutes; human effects on soil and groundwater; as well as the measurement, prediction, and control of the physical processes taking place in and through the soil.

**ENST 420 Soil Physical Properties Laboratory (1)** Pre- and corequisites: ENST417 (formerly NRSC417). Credit will be granted for only one of the following: ENST420 or NRSC420. Formerly NRSC 420. A study of
methods used in measuring static and dynamic soil physical properties. Implications from hands-on mastery of these techniques include an increased understanding of soil physical components, soil-water interactions, as well as the measurement, prediction, and control of the physical processes taking place in and through the soil.

**ENST 421 Soil Chemistry (4)** Prerequisite: ENST200 (formerly NRSC200). Credit will be granted for only one of the following: ENST421 or NRSC421. Formerly NRSC 421. The chemistry and composition of mineral and organic colloids in soils, including ion exchange, oxidation-reduction, acidity, surface charge, and solution chemistry. Lectures and readings pertain to plant nutrition, waste disposal, and groundwater quality.

**ENST 422 Soil Microbiology (3)** Prerequisite: ENST200 (formerly NRSC200), CHEM104 or permission of department. Credit will be granted for only one of the following: ENST422 or NRSC422. Formerly NRSC 422. Relationship of soil microorganisms to the soils' physical and chemical properties. Nitrogen fixation, mycorrhizae-plant interactions and microbially mediated cycling.

**ENST 423 Soil-Water Pollution (3)** Prerequisites: ENST200 (formerly NRSC200) and CHEM104; or permission of department. Credit will be granted for only one of the following: ENST423 or NRSC423. Reaction and fate of pesticides, agricultural fertilizers, industrial and animal wastes in soil and water with emphasis on their relation to the environment.

**ENST 424 Field Study in Soil Morphology (4)** Prerequisite: ENST200 (formerly NRSC200). Credit will be granted for only one of the following: ENST424 or NRSC424. Formerly NRSC 424. The fundamentals of making morphological descriptions of soils, using standard techniques, terminology, and abbreviations of the National Cooperative Soil Survey. Given a regional perspective and reasonable assumptions regarding soil properties, students should become competent to classify soils which they have described in the field and also make interpretations concerning the suitability of soils for various potential uses.

**ENST 425 Terrestrial Bioremediation (3)** Prerequisite: one course in biology; and CHEM103 or CHEM131 and CHEM132; or permission of department. Credit will be granted for only one of the following: ENST425 or NRSC425. Formerly NRSC 425. Biologically based methods for the remediation of contaminated soil. Bioremediation using bacteria, fungi and higher plants, of both organic and inorganic contaminants in soil will be addressed.

**ENST 430 Wetland Soils (3)** Two hours of lecture per week, plus four field trips scheduled on Saturday. Prerequisite: ENST200 (formerly NRSC200). Credit will be granted for only one of the following: ENST430 or NRSC461. Formerly NRSC 461. The soils of wetlands including hydrology, chemistry, genesis, and taxonomy are discussed. The understanding of federal and regional guidelines to wetland soils are covered with an emphasis on validating interpretations through field observations. Saturday field trips are required.

**ENST 440 Crops, Soils and Civilization (3)** Credit will be granted for only one of the following: ENST440 or NRSC440. Formerly NRSC 440. Role and importance of crop and soil resources in the development of human civilization. History of crop and soil use and management as they relate to the persistence of ancient and modern cultures.

**ENST 441 Sustainable Agriculture (3)** Credit will be granted for only one of the following: ENST441 or NRSC441. Formerly NRSC 441. Environmental, social and economic needs for alternatives to the conventional, high-input farming systems which currently predominate in industrial countries. Strategies and practices that minimize the use of non-renewable resources.

**ENST 444 Remote Sensing of Agriculture and Natural Resources (3)** Credit will be granted for only one of the following: ENST444 or NRSC444. Formerly NRSC 444. Interaction of electromagnetic radiation with matter. Application of remote sensing technology to agriculture and natural resource inventory, monitoring and management and related environmental concerns.

**ENST 450 Wetland Ecology (3)** One hour of lecture and four hours of laboratory per week. Prerequisite: BIOM301 or permission of department. Also offered as MEES650. Credit will be granted for only one of the following: ENST450, NRMT450, or MEES650. Formerly NRMT 450. Plant and animal communities, biogeochemistry, and ecosystem properties of wetland systems. Laboratory emphasizes collection and analysis of field data on wetland vegetation, soil, and hydrology.

**ENST 454 Environmental Issues in Plant and Soil Sciences (3)** Credit will be granted for only one of the following: ENST454 or NRSC454. Formerly NRSC 454. Effects of air pollutants such as ozone, sulfur dioxide, acid rain, etc., and soil pollutants such as toxic metals and pesticides on the growth, productivity and quality of crops.

**ENST 470 Natural Resources Management (4)** 85 semester hours. For NRMT majors only. Field work and independent research on watersheds. Intensive seminar on resource management planning and report preparation.

**ENST 499 Special Topics in Natural Resource Sciences (1-4)** Prerequisites: ENST200 (formerly NRSC200) or permission of department. Credit will be granted for only one of the following: ENST499 or
NRSC499. Formerly NRSC 499. A lecture and/or laboratory series organized to study a selected phase of Natural Resource Sciences not covered by existing courses. Credit according to time scheduled and organization of the course.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: FMST - Family Studies
Course Number: Search

Courses in "FMST-Family Studies"

FMST - Family Studies

FMST 105 Individuals in Families (3) Personal growth and development within the family context. Exploration of self-awareness, sex-role image, life transitions, and interpersonal and family relations.

FMST 260 Couple Relationships (3) Couple relationships and their alternatives in contemporary dating, courtship and marriage.

FMST 290 Family Economics (3) Application of economic methodology to study families under various economic situations. Examination of how decisions about marriage, divorce, fertility, consumption and time use are influenced by labor/housing markets, tax structure, social welfare benefits and other economic
considerations.

**FMST 298 Special Topics in Family Studies (1-3)** Repeatable to 12 credits if content differs. Topics of special interest under the general guidance of the Department of Family Studies.

**FMST 302 Research Methods in Family Studies (3)** Prerequisite: introductory statistics course. For FMST majors only. Introduction to the methods of the social and behavioral sciences employed in family science. The role of theory, the development of hypotheses, measurement, design, and data analysis.

**FMST 330 Family Theories and Patterns (3)** Junior standing. Theory and research on the family, including a cross-cultural analysis of family patterns.

**FMST 332 Children in Families (3)** Prerequisite: FMST105 or PSYC100. A family life education approach to the study of children and families. Emphasis on the interaction of children with parents, siblings, extended kin, and the community.

**FMST 341 Personal and Family Finance (3)** Individual and family financial strategies with emphasis on financial planning, savings, investments, insurance, income taxes, housing, and use of credit. Planning, analyzing, and controlling financial resources to resolve personal/family financial problems and to attain financial security.

**FMST 381 Poverty, Affluence, and Families (3)** Prerequisite: SOCY100 or SOCY105. Social, political, cultural and economic factors influencing income and wealth in American families.

**FMST 383 Delivery of Human Services to Families (3)** Prerequisite: FMST330. Processes of service delivery with special emphasis upon relationships among managers, service providers and clients. The impact of human service systems on families.

**FMST 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.

**FMST 399 Independent Study (1-6)** Prerequisite: permission of department. Repeatable to 12 credits.

**FMST 430 Gender Issues in Families (3)** Prerequisite: SOCY100 or SOCY105 or PSYC100. Also offered as WMST430. Credit will be granted for only one of the following: FMST430 or WMST430. The development of historical, cultural, developmental, and psychosocial aspects of masculinity and femininity within the context of contemporary families and the implications for interpersonal relations.

**FMST 431 Family Crises and Intervention (3)** Prerequisite: PSYC100. Family crises such as divorce, disability, substance abuse, financial problems, intrafamilial abuse, and death. Theories and techniques for intervention and enhancement of family coping strategies.

**FMST 432 Adult Development and Aging in Families (3)** Prerequisite: PSYC100; and {SOCY100 or SOCY105} and FMST332 {or a comparable development course}. Theory, research, history, and programming related to adult development and aging in the intergenerational context of family.

**FMST 452 Family Policy Analysis (3)** Prerequisite: permission of department. Examination of public, private, and nonprofit sector policies and their impact on the quality of family life. Emphasis on policy formation, implementation, and evaluation.

**FMST 460 Violence in Families (3)** Prerequisite: PSYC100 or SOCY100 or SOCY105. Theories of child, spouse, and elder abuse in the family setting. Emphasis on historical, psychological, sociological and legal trends relating to physical, emotional, and sexual abuse. Introduction to methods for prevention and remediation.

**FMST 477 Internship and Analysis in Family Studies (3)** Prerequisites: FMST383, plus an additional six FMST credits and permission of department. For FMST majors only. Credit will be granted for only one of the following: FMST477 or FMST347. A supervised internship and a seminar requiring analysis. Opportunities to integrate theory and practice including 120 hours of contracted field experience. Summer or fall internship contracts due May 1; Spring contracts due December 1. See department for application procedures.

**FMST 480 Work and Family Issues and Programs (3)** The purpose, nature, organization and administration of work site, or employer-based, family support resources, including child and elder care referral and subsidies, parenting education, health and wellness programs, parental and sick child leaves, and flexible work scheduling.

**FMST 485 Introduction to Family Therapy (3)** Prerequisites: FMST330 or FMST370; or one psychology course at 300 or above level. The fundamental theoretical concepts and clinical procedures of marital and family therapy including premarital and divorce therapy issues.
FMST 487 Legal Aspects of Family Problems (3) Laws and legal procedures, with emphasis on adoption, marriage, divorce, annulment, and property rights, and how they affect family life.

FMST 490 Family and Addiction (3) Prerequisite: SOCY100 or SOCY105 or PSYC100 or permission of instructor. Theory, research, and clinical practice in the area of addictions and recovery as they relate to family processes.

FMST 497 The Child and the Law (3) Legislation and case law regarding children's legal rights with emphasis on the rights of children in the juvenile justice system, and rights to medical, educational, and other social services.

FMST 498 Special Topics (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Special course topics in family studies.

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Use the search box below to view the approved courses.

**Select Program:** FOLA - Foreign Language

**Course Number:**

- **FOLA 108 Elementary Foreign Languages I (3)** Repeatable if content differs. The first semester of conversational study of a language not otherwise offered. The arts and humanities language requirement may be fulfilled by successful completion of FOLA108, FOLA109, FOLA118 and FOLA119 in a single language.

- **FOLA 109 Elementary Foreign Languages II (3)** Prerequisite: FOLA108 in the subject language or permission of department. Repeatable if content differs. The second semester of conversational study of a language not otherwise offered. The arts and humanities language requirement may be fulfilled by successful completion of FOLA108, FOLA109, FOLA118 and FOLA119 in a single language.
FOLA 118 Intermediate Foreign Languages I (3) Prerequisite: FOLA109 in the subject language or permission of department. Repeatable if content differs. The third semester of conversational study of a language not otherwise offered. The arts and humanities language requirement may be fulfilled by successful completion of FOLA108, FOLA109, FOLA118 and FOLA119 in a single language.

FOLA 119 Intermediate Foreign Language II (3) Prerequisite: FOLA118 in the subject language or permission of department. Repeatable if content differs. Developing intermediate language skills, in both grammar and vocabulary; enhancement of oral and writing abilities.

FOLA 128 Introductory Middle Eastern Languages I (3) Prerequisite: permission of department. Repeatable to 9 credits if content differs. An introduction to the three principal languages of the Islamic Middle East: Arabic, Persian, and Turkish. Only standard written form of the three languages is taught. May not be used to satisfy arts and humanities language requirement.

FOLA 129 Introductory Middle Eastern Languages II (3) Prerequisite: FOLA128 and permission of department. Repeatable to 9 credits if content differs. Continuation of FOLA128. May not be used to satisfy arts and humanities language requirement.

FOLA 138 Directed Study of a Foreign Language I (3) Open only by permission of department to students of high motivation and proven language learning aptitude. Directed study of a modern foreign language with use of a self-instructional approach.

FOLA 139 Directed Study of a Foreign Language II (3) Prerequisite: FOLA138 in the same language or permission of department. A continuation of FOLA138.

FOLA 148 Directed Study of a Foreign Language III (3) Prerequisite: FOLA139 in the same language or permission of department. A continuation of FOLA139.

FOLA 149 Directed Study of a Foreign Language IV (3) Prerequisite: FOLA148 in the same language or permission of department. A continuation of FOLA148.

FOLA 158 Directed Study of a Foreign Language (Intensive) I (6) Open only by permission of department to students of very high motivation and proven language learning aptitude. Intensive directed study of a modern foreign language with use of a self-instructional approach. Equivalent to FOLA138 plus FOLA139.

FOLA 159 Directed Study of a Foreign Language (Intensive) II (6) Prerequisite: FOLA158 in the same language or permission of department. A continuation of FOLA158. Equivalent to FOLA148 plus FOLA149.

FOLA 228 Intermediate Middle Eastern Languages I (3) Prerequisite: FOLA129 and permission of department. Repeatable to 9 credits if content differs. Continuation of FOLA129. May not be used to satisfy arts and humanities language requirement.

FOLA 329 Advanced Middle Eastern Languages II (3) Prerequisite: FOLA328 or permission of department. Repeatable to 9 credits if content differs. Continuation of FOLA328. May not be used to satisfy arts and humanities language requirement.

FOLA 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

FOLA 389 Foreign Civilization (3) Repeatable to 6 credits if content differs. A survey of the cultural history, arts and letters, folklore and life-style of the speakers of a language not otherwise offered. All readings and instruction in English.

FOLA 408 Foreign Language I (3) Intensive study of a foreign language or related topic not available under one of the current foreign language departments or programs. May not be used to fulfill the arts and humanities language requirement.

FOLA 409 Foreign Language II (3) Prerequisite: FOLA408 in the same language or topic. A continuation of FOLA 408. May not be used to fulfill arts and humanities language requirement.

FOLA 459 Foreign Literature in Translation (3) Repeatable to 6 credits if content differs. Reading and discussion of selected authors, periods or genres of a foreign literature not otherwise offered. All readings and instruction in English.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: FREN - French
Course Number: Search

Courses in "FREN-French"

**FREN - French**

**FREN 101 Elementary French I (4)** Four classroom meetings per week. Not open to students with 2 or more years of high school level French or to native/fluent speakers of French. Introduction to basic structures and pronunciation with emphasis on the four skills: listening, speaking, reading and writing.

**FREN 102 Elementary French II (4)** Four classroom meetings per week. Prerequisite: FREN101 at UMCP or permission of department. Further work on basic structures and pronunciation with emphasis on the four skills: listening, speaking, reading and writing.

**FREN 103 Intensive Elementary French (4)** Four classroom meetings per week. Not open to students who...
have completed FREN101, FREN102, more than two years of high school French, or to fluent/native speakers of French. Credit will be granted for only one of the following: FREN102 or FREN103. Covers speaking, reading, writing, listening, and culture of French-speaking world.

**FREN 201 Intermediate French (4)** Four classroom meetings per week. Prerequisite: FREN102. Not open to native/fluent speakers of French. Not open to students who have completed four years (Level 4) of high school French or are fluent/native speakers of French. Credit will be granted for only one of the following: FREN201 or FREN203. Formerly FREN 203. Completion of work on basic structures and pronunciation with emphasis on the four skills: listening, speaking, reading and writing. Fulfills the Arts and Humanities Language Requirement.

**FREN 203 Intensive Intermediate French (4)** Prerequisite: FREN103 or equivalent. Credit will be granted for only one of the following: FREN201, FREN202 or FREN203. Formerly FREN 202. Covers speaking, reading, writing, listening, and culture of French-speaking world.

**FREN 204 French Grammar and Composition (3)** Prerequisite: FREN201 or FREN203. Open to students who have completed 4 years (Level 4) of high school French. Not open to native/fluent speakers of French. Intensive study of French grammar and composition.

**FREN 211 French Reading and Conversation (3)** Not open to native/fluent speakers of French. Prerequisite: FREN201 or FREN203. Practice in spoken French at intermediate level based on readings in a variety of genres. Written homework and exams.

**FREN 240 Masterworks of French Literature in Translation (3)** Major works of French literature from pre-revolutionary France to the present. Emphasis on the individual in a social context. In English.

**FREN 241 Women Writers of French Expression in Translation (3)** Also offered as WMST241. Credit will be granted for only one of the following: FREN241 or WMST241. Works and ideas of 20th century women writers of French in Canada, Africa, the Caribbean and France. Taught in English.

**FREN 242 Black Writers of French Expression in Translation (3)** An analysis of the works and ideas of 20th century black writers of French in Africa, the Caribbean and France. Taught in English.

**FREN 243 Masterpieces in French and Francophone Cinemas (3)** This course, taught in English, will present a large array of films directed by famous French directors (Jean Renoir, Robert Bresson, Jean-Luc Godard, Agnès Varda, etc..) and Francophone filmmakers (Arcand,Sembene) who were internationally known in their time and have had a considerable influence on today's filmmakers in the U.S. (Tarantino, Lynch, Lee, etc..)and abroad (Sissoko, Angelopoulos, VonTrier, etc..).

**FREN 248 Aspects of French Civilization (3)** Two hours of lecture and one hour of discussion/recitation per week. Credit may not be applied to French major. Repeatable to 6 credits if content differs. Formerly FREN 370. Topic to be determined each semester. Historical or thematic approaches to French art, literature, and culture. Taught in English.

**FREN 301 Composition and Style (3)** Not open to native/fluent speakers of French. Prerequisite: FREN250 or equivalent. Grammatical analysis, translation, free and guided composition.

**FREN 302 Practicum in Translation I (3)** Prerequisite: FREN301 or equivalent. Problems and strategies of translation into both English and French. Journalistic and literary styles.

**FREN 303 Practicum in Translation II (3)** Prerequisite: FREN301 or equivalent. Recommended: FREN302. Further problems and strategies of translation into both English and French. Journalistic and literary styles.

**FREN 306 Commercial French I (3)** Prerequisite: FREN301 or equivalent. Introduction to commercial French including correspondence and business terminology. Emphasis on cross-cultural concepts needed for successful interaction within business settings. In French.

**FREN 311 Advanced Conversation: The History of France (3)** Not open to fluent/native speakers of French. Prerequisite: FREN250 or equivalent. Recommended: FREN211. Linguistic and thematic analysis and discussion of written and audiovisual texts on French history with attention paid to role of history in contemporary events. Some written assignments.

**FREN 312 France Today (3)** Not open to native/fluent speakers of French. Prerequisite: FREN301 or equivalent. Analysis and discussion of current events and institutions, primarily articles from French press.
FREN 351 From Romanticism to the Age of Modernism and Beyond (3) Prerequisite: FREN301 or equivalent. A survey of the chief authors and major movements of French literature from Pre-Romanticism to the present.

FREN 352 From the Age of Epic and Romance to the Enlightenment (3) Prerequisite: FREN301 or equivalent. A survey of the chief authors and major movements of French literature from the Middle Ages to the end of the 18th century.

FREN 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

FREN 388 Language House Colloquium (1) Prerequisite: Residence in Language House. Repeatable to 4 credits. The Language House Colloquium is a one-credit course for students residing in the Language House Immersion Program. The course focuses on the further development of skills in the target language and the acquiring of cultural knowledge of the countries that speak the target language. The course is designed to supplement the learning that takes place on a daily basis in the Language House program.

FREN 399 Directed Study in French (1-3) Prerequisite: permission of department. Repeatable to 3 credits. Advanced undergraduates develop syllabus, reading list, and course requirements with interested faculty member. Designed for in-depth study of material not offered in regular courses or as expansion of course material. To be planned during semester preceding registration.

FREN 400 Applied Linguistics (3) The nature of applied linguistics and its contribution to the effective teaching of foreign languages. Comparative study of English and French, with emphasis upon points of divergence.

FREN 401 Writing with Style (3) Prerequisite: FREN301 or permission of department. Advanced composition and stylistic analysis.

FREN 404 Issues in the French-Speaking World Today (3) Prerequisite: FREN311 or FREN 312 or permission of department. A sociocultural and historical approach to relevant issues affecting contemporary French civilization. Press articles and television programs will be the basis for classroom cultural analysis and oral communication.

FREN 406 Commercial French II (3) Prerequisite: FREN306 or permission of department. Advanced study of commercial French language--terminology and style--leading to preparation for the Paris Chamber of Commerce Examination.


FREN 429 Studies in French Literature and Culture of the Renaissance (3) Repeatable to 6 credits if content differs. Selected topics in French literature of the Renaissance.

FREN 439 Studies in 17th Century French Literature and Culture (3) Repeatable to 6 credits if content differs. Selected topics in seventeenth-century French literature.

FREN 449 Studies in 18th Century French Literature and Culture (3) Repeatable to 6 credits if content differs. Selected topics in eighteenth-century French literature.

FREN 459 Studies in 19th Century French Literature and Culture (3) Repeatable to 6 credits if content differs. Selected topics in nineteenth-century French literature.

FREN 469 Studies in 20th Century French Literature and Culture (3) Repeatable to 6 credits if content differs. Selected topics in twentieth-century French literature.

FREN 471 The Construction of French Identity I: From the Origins to the Age of Versailles French life, customs, culture, traditions (800-1750).

FREN 472 The Construction of French Identity II: From the Revolution to the Early Twentieth Century French life, customs, culture, traditions (1750 to the early twentieth century).

FREN 473 The Construction of French Identity III: Cross-Cultural Approaches (3) to the Study of Contemporary French Society Patterns of communication, mythology, and ideology in modern France, from the Third Republic to the present, through historical and cross-cultural approaches, with reference to the Francophone world.

FREN 474 Contemporary France: A Sociocritical Approach (3) Recommended: FREN473. A sociocritical approach to understanding modern French society through the study of print and non-print media documents.
(autobiography, film, and paraliterature), with reference to the Francophone world.

**FREN 478 Themes and Movements of French Literature in Translation (3)** Studies treatments of thematic problems or literary or historical movements in French literature. Topic to be determined each semester. Taught in English.

**FREN 479 Masterworks of French Literature in Translation (3)** Treats the works of one or more major French writers. Topic to be determined each semester. Taught in English.


**FREN 481 Femmes Fatales and the Representation of Violence in Literature, (3)** Opera and Film (in English) The problem of violence in art with respect to women and marginal populations. Taught in English.

**FREN 482 Gender and Ethnicity in Modern French Literature (3)** Literature by women writers of France and other French speaking areas with a focus on the relationship between gender, ethnicity and writing. Taught in English.

**FREN 489 Pro-Seminar in Themes or Movements of French Literature (3)** Repeatable to 6 credits if content differs.

**FREN 495 Honors Thesis Research (3)** Open only to students admitted to the departmental honors program. The writing of a paper under the direction of a professor in this department and an oral examination. Required to fulfill the departmental honors requirement.

**FREN 498 Special Topics in French Literature (3)** Repeatable to 6 credits if content differs.

**FREN 499 Special Topics in French Studies (3)** Repeatable to 6 credits if content differs. An aspect of French studies, the specific topic to be announced each time the course is offered.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: GEMS - Gemstone

Course Number: Search

Courses in "GEMS-Gemstone"

GEMS - Gemstone

GEMS 100 Freshman Honors Colloquium: Introduction to Gemstone (1) Freshman standing. Orienting new Gemstone students to the university and to the program through a variety of team building activities, resources, and skill exploration exercises. Students will also examine and discuss areas such as liberal education, diversity, service, arts, current events, academic integrity, and leadership style.

GEMS 102 Research Topic Exploration (1) Restricted to Gemstone students only. Under the guidance of staff and visiting speakers, students will develop research topics that they will pursue for the remainder of their participation in the Gemstone program, and form into interdisciplinary teams around these topics.
GEMS 104 Topics in Science, Technology and Society (STS) (3) Prerequisite: GEMS100. Corequisite: GEMS102 Restricted to Gemstone students only. Credit will be granted for only one of the following: GEMS103, GEMS104 or HIST175G. An examination of how cultural, economic, political and social forces shape scientific and technological systems and, conversely, how scientific and technological systems have affected the culture, economies, organization and politics of societies. Students in the course will form small teams to carry out semester-long research on socio/technical topics related to the course theme chosen for that specific semester.

GEMS 202 Team Dynamics and Research Methodology (2) One hour of lecture and one hour of discussion/recitation per week. Prerequisite: GEMS100, GEM 102 and GEM 104. Corequisite: GEM 296 For GEMSTONE participants only. Sophomore standing. This is designed to foster an understanding of the dynamics of team behavior and basic research methodology. This experiential course will teach skills applicable to Gemstone research and the writing of a team thesis. Upperclassmen serve as section leaders and will act as peer mentors to the new teams and serve as an additional resource for them.

GEMS 208 Special Topics in Leadership and Team Development (1-3) Principles, methods and types of leadership and team development with an emphasis on group discussion and decision making. Reading, discussion and exploration of the basic team concept, communications for winning scenarios, goal setting, problem solving, conflict resolution and research methods.

GEMS 296 Team Project Seminar I (1) Prerequisite: GEMS100, GEMS102 and GEMS104. Corequisite: GEMS202. For Gemstone students with sophomore standing in a research team. This is the first of six seminars during which Gemstone students carry out multidisciplinary research under the general guidance of a faculty mentor. The teams develop their working relationship, start their literature search, define their research question, and set short & long term goals.

GEMS 297 Team Project Seminar II (2-3) Prerequisite: For Gemstone students with sophomore standing in a research team. This is the second of six seminars during which Gemstone students carry out interdisciplinary research under the general guidance of a faculty mentor. The teams develop their website, prepares and presents its research proposal.

GEMS 308 Selected Topics (3) For Gemstone students only. Sophomore standing. Gemstone winter course (study abroad) will allow individuals and research teams to focus on the three dimensions of transformation as related to traditional societies and technology; (a) changing patterns of social need and technology; (b) cultural antecedents and its transformative effects on traditions; and (c) social traditions that hinder and/or enhance technological innovations.

GEMS 396 Team Project Seminar III (2) Prerequisite: GEMS297. For Gemstone students with junior standing in a research team. This is the third of six seminars during which Gemstone students carry out interdisciplinary research under the general guidance of a faculty mentor.

GEMS 397 Team Project Seminar IV (2) Prerequisite: For Gemstone students with junior standing in a research team. This is the fourth of six seminars during which Gemstone students carry out interdisciplinary research under the general guidance of a faculty mentor. The team further develops its website, prepares and presents the team project in the poster session of Undergraduate Research Day.

GEMS 496 Project Writing Seminar (2) Prerequisite: GEMS397. For Gemstone participants only. Students will further develop and use teamwork skills to complete interdisciplinary research under the general guidance of a faculty mentor. The student subgroup will investigate broad interdisciplinary challenges of societal, environmental, business, or policy significance that have a significant technological component in their potential solution. Intermediate research results will be presented by each team.

GEMS 497 Team Thesis Defense (2) Prerequisite: GEMS496. For Gemstone participants only. Gemstone teams will complete the team research project and thesis. The team will formally present the thesis to experts in the area of interest at a Team Thesis Conference before final submission.

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Use the search box below to view the approved courses.

Select Program: GEOG - Geography

Course Number:   Search

Courses in "GEOG-Geography"

GEOG - Geography

GEOG 100 Introduction to Geography (3) An introduction to the broad field of geography as it is applicable to the general education student. The course presents the basic rationale of variations in human occupancy of the earth and stresses geographic concepts relevant to understanding world, regional and local issues.

GEOG 123 Causes and Implications of Global Change (3) Also offered as AOSC123 and GEOL123. Credit will be granted for only one of the following: AOSC123, GEOG123, GEOL123, or METO123. A unique experience in integrating physical, chemical, geological, and biological sciences with geographical, economic, sociological, and political knowledge skills toward a better understanding of global change. Review of environmental science relating to weather and climate change, acid precipitation, ozone holes, global...
warming, and impacts on biology, agriculture, and human behavior. Study of the natural, long-term variability of the global environment, and what influence mankind may have in perturbing it from its natural evolution. Concepts of how physical, biological, and human behavioral systems interact, and the repercussions which may follow human endeavors. The manner in which to approach decision and policy making related to global change.

**GEOG 130 Developing Countries (3)** An introduction to the geographic characteristics of the development problems and prospects of developing countries. Spatial distribution of poverty, employment, migration and urban growth, agricultural productivity, rural development, policies and international trade. Portraits of selected developing countries.

**GEOG 140 Coastal Environments (3)** Introduction to coastal environments, with emphasis on U.S. East Coast. Physical and ecological systems, beach processes, waves, currents, human impacts, coastal zone management and shoreline engineering. Case studies of coastal areas, including Ocean City, Maryland.

**GEOG 170 Maps and Map Use (3)** An exploration of ways in which maps are produced, including how data are gathered using remote sensing, how data are analyzed in geographic information systems, and how data are presented in cartographic form. Development of skills in map reading, data interpretation and analysis, environmental analysis, and user-oriented presentations.

**GEOG 201 Geography of Environmental Systems (3)** A systematic introduction to the processes and associated forms of the atmosphere and earth's surfaces emphasizing the interaction between climatology, hydrology and geomorphology.

**GEOG 202 Introduction to Human Geography (3)** Introduction to what geographers do and how they do it. Systematic study of issues regarding social and cultural systems from a global to a local scale. Looks at the distribution of these variables and answers the question "Why here, and not there"?

**GEOG 211 Geography of Environmental Systems Laboratory (1)** Two hours of laboratory per week. Pre- or corequisite: GEOG201 or GEOL100 or GEOL120. A laboratory course to accompany GEOG 201. Analysis of the components of the earth's energy balance using basic instrumentation; weather map interpretation; soil analysis; the application of map and air photo interpretation techniques to landform analysis.

**GEOG 212 Introduction to Human Geography Laboratory (1)** Two hours of laboratory per week. Pre- or corequisite: GEOG202. For GEOG majors only. Introduction to the basic methods and techniques employed in human geography.

**GEOG 305 Quantitative Methods in Geography (3)** A practical introduction to data sources and measurement, descriptive statistics, data collection, sampling and questionnaire design, field techniques, map use, computer use and data presentation.

**GEOG 306 Introduction to Quantitative Methods for the Geographic Environment Sciences (3)** Also offered as GEOG398Q. Credit will be granted for only one of the following: GEOG398Q or GEOG306. Formerly GEOG 398Q. Essentials in the quantitative analysis of spatial and other data, with a particular emphasis on statistics and programming. Topics include data display, data description and summary, statistical inference and significance tests, analysis of variance, correlation, regression, and some advanced concepts, such as matrix methods, principal component analysis, and spatial statistics. Students will develop expertise in data analysis using advanced statistical software.

**GEOG 310 Maryland and Adjacent Areas (3)** Credit will be granted for only one of the following: GEOG310 or GEOG321. Formerly GEOG 321. The physical environment, natural resources, and population in relation to agriculture, industry, transport, and trade in the State of Maryland and adjacent areas.

**GEOG 312 The United States and Canada (3)** Credit will be granted for only one of the following: GEOG312 or GEOG320. Formerly GEOG 320. The two countries as functioning geographic systems with important differences and key linkages. An examination of the cultural, environmental, and economic components and their spatial variation. Attention to the role of regions in national economies.

**GEOG 313 Latin America (3)** Credit will be granted for only one of the following: GEOG313 or GEOG323. Formerly GEOG 323. A geography of Latin America and the Caribbean in the contemporary world: political and cultural regions, population and resource distribution, historical development, current levels of economic and social well-being, urbanization, development policies, migration trends, physical features and climates.

**GEOG 328 Topics in Regional Geography (3)** Repeatable to 6 credits if content differs. Selected topics in regional geography.

**GEOG 330 Cultural Geography (3)** Prerequisite: GEOG201, GEOG202, ANTH220, or ANTH260; or permission of department. Credit will be granted for only one of the following: GEOG330, GEOG360, or GEOG362. Formerly GEOG 362. Impact of humans through ideas and technology on the evolution of geographic landscapes. Major themes in the relationships between cultures and environments.
GEOG 331 Introduction to Human Dimensions of Global Change (3) Prerequisites: GEOG201, GEOG202, ANTH220, or ANTH260; or permission of department. Credit will be granted for only one of the following: GEOG331 or GEOG361. Formerly GEOG 361. Introduction to global-scale interrelationship between human beings and the environment. The development of global issues including but not limited to the environment, food, energy, technology, population, and policy.

GEOG 332 Economic Geography (3) Credit will be granted for only one of the following: GEOG203, GEOG303, or GEOG332. Formerly GEOG 303. Principles of managing scarce resources in a world where everyone faces tradeoffs across both time and space. Focuses on the relationship between globalization processes and changing patterns of locational advantages, production, trade, population, socioeconomic and environmental grace and sustainability.

GEOG 334 The American City: Past and Present (3) Credit will be granted for only one of the following: GEOG334 or GEOG350. Formerly GEOG 350. Development of the American city from the early 19th century to the present. The internal structure of contemporary metropolitan areas, the spatial arrangement of residential, commercial, and other activities. Washington, D.C. and Baltimore examples.


GEOG 342 Introduction to Biogeography (3) Prerequisite: GEOG201. Recommended: GEOG211. Credit will be granted for only one of the following: GEOG342 or GEOG347. Formerly GEOG 347. The principles of biogeography, including the patterns, processes and distributions of living organisms from local to global scales, aspects of ecophysiology, population and community ecology and evolutionary biology. Spatial processes in the biosphere will be covered.

GEOG 345 Introduction to Climatology (3) The geographic aspects of climate with emphasis on energy-moisture budgets, steady-state and non steady-state climatology, and climatic variations at both macro-and micro-scales.

GEOG 346 Cycles in the Earth System (3) Prerequisite: MATH140, AOSC/GEOG/GEOL123, or permission of department. Recommended: MATH141, PHYS141, PHYS161, or PHYS171. Also offered as AOSC346 and GEOL346. Credit will be granted for only one of the following: AOSC346, GEOG346, or GEOL346. The Earth System operates through some fundamental cycles such as water, energy, and the Carbon Cycle. This course will build on GEOL/GEOG/AOSC123 starting with concept of feedbacks within the Earth System, global energy balance and the Greenhouse Effect. A brief introduction to the atmospheric and oceanic circulation will lead to the water cycle connecting the land, ocean, and atmosphere to the Earth System. Introduction to the Global carbon, nitrogen, and sulfur cycles will be followed by the concept of long-term climate regulation and short-term climate variability. The concepts of cycles, feedbacks, forcings, and responses in the Earth System will be applied to Global Warming and Ozone Depletion.

GEOG 372 Remote Sensing (3) Principles of remote sensing in relation to photographic, thermal infrared and radar imaging. Methods of obtaining quantitative information from remotely-sensed images. Interpretation of remotely-sensed images emphasizing the study of spatial and environmental relationships.

GEOG 373 Geographic Information Systems (3) Two hours of lecture and two hours of laboratory per week. Characteristics and organization of geographic data; creation and use of digital geospatial databases; metadata; spatial data models for thematic mapping and map analysis; use of geographic information system in society, government, and business. Practical training with use of advanced software and geographic databases.

GEOG 375 Computer Cartography (3) Credit will be granted for only one of the following: GEOG370, GEOG371, or GEOG375. Formerly GEOG 371. Principles of cartographic database, earth-map relations, map design, symbolization and color usage. Practical skills of making different thematic maps using simple software packages.

GEOG 384 Internship in Geography (3) Prerequisite: GEOG305; and GEOG310; and permission of department. Corequisite: GEOG385. Supervised field training to provide career experience. Introduction to professional level activities, demands, opportunities. Placement at a public agency, non-profit organization, or private firm. Participation requires application to the internship advisor in preceding semester.

GEOG 385 Internship Research Paper (3) Prerequisite: GEOG305; and GEOG310; and permission of department. Corequisite: GEOG384. Seminar conducted on campus. Research paper related to the student’s internship.

GEOG 396 Honors Research (3) Prerequisite: permission of department. Senior standing. For GEOG majors only. Formerly GEOG 397. First course in the departmental honors sequence. Student development of a potential research topic under the guidance of a faculty advisor, culminating in a written and oral presentation of a research proposal.
GEOG 397 Honors Thesis (3) Prerequisite: GEOG396. Senior standing. For GEOG majors only. Formerly GEOG 399. Second course in the departmental honors sequence. Student research under the auspices of a faculty advisor, culminating in a research paper to be defended orally before the geography honors committee.

GEOG 398 Special Topics in Geography (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: GEOG298 or GEOG398. Formerly GEOG 298. An introductory course dealing with special topics in geography.

GEOG 410 Washington, D.C.: Past and Present (3) Credit will be granted for only one of the following: GEOG410 or GEOG454. Formerly GEOG 454. Development of the Washington, D.C. area from its origin as the Federal Capital to its role as a major metropolitan area. The geographic setting, the L'Enfant Plan and its modification, the federal government role, residential and commercial structure. The growth of Washington's suburbs.

GEOG 415 Land Use, Climate Change, and Sustainability (3) Prerequisite: GEOG123, GEOG306, or permission of department. Recommended: GEOG201/211, GEOG340, GEOG342, or GEOG331. Credit will be granted for only one of the following: GEOG415 or GEOG498D. Formerly GEOG 498D. The issues of climate change and land use change as two interlinked global and regional environmental issues and their implications for society and resource use are explored.

GEOG 418 Field and Laboratory Techniques in Environmental Science (1-3) Prerequisite: permission of department. Credit will be granted for only one of the following: GEOG418 or GEOG448. Formerly GEOG 448. Lecture and laboratory learning each week. A variable credit course that introduces field and laboratory analyses in environmental science. Individual learning contract are developed with instructor.

GEOG 431 Culture and Natural Resource Management (3) Credit will be granted for only one of the following: GEOG421 or GEOG431. Formerly GEOG 421. Basic issues concerning the natural history of humans from the perspective of the geographer. Basic components of selected behavioral and natural systems, their evolution and adaptation, and survival strategies.

GEOG 432 Location Theory and Spatial Analysis (3) Credit will be granted for only one of the following: GEOG430 or GEOG432. Formerly GEOG 430. Theories and procedures for determining the optimal location of industrial, commercial and public facilities. Techniques to evaluate location decisions. The provision of services with regions and metropolitan areas. Emerging trends.

GEOG 433 Transportation Networks (3) The theory and practice of analysing transportation networks, including modes, links, routes, flows and regions. Examples drawn from different transportation modes.

GEOG 434 The Contemporary City (3) Credit will be granted for only one of the following: GEOG434 or GEOG450. Formerly GEOG 450. The contemporary urban system: towns, cities and metropolitan areas and their role as concentrations of social and economic activity. Patterns of land-use: residential, employment, commercial activity, manufacturing, and transportation. Explanatory and descriptive models. International comparisons.

GEOG 435 Population Geography (3) Credit will be granted for only one of the following: GEOG422 or GEOG435. Formerly GEOG 422. The spatial characteristics of population distribution and growth, migration, fertility and mortality from a global perspective. Basic population-environmental relationships; carrying capacity, density, relationships to national development.

GEOG 436 Political Geography (3) Credit will be granted for only one of the following: GEOG423 or GEOG437. Formerly GEOG 423. Geographical factors in the national power and international relations; an analysis of the role of geopolitics and geostrategy, with special reference to the current world scene.

GEOG 438 Seminar in Human Geography (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Selected topics in human geography.

GEOG 440 Advanced Geomorphology (3) Prerequisite: GEOG340 or GEOL340 or permission of department. Credit will be granted for only one of the following: GEOG440 or GEOG441. Formerly GEOG 441. A quantitative investigation of the fundamental geomorphic processes shaping modern landscapes, with emphasis on coastal, fluvial or glacial processes. Discussion of historical environments. Field, instrumentation and laboratory analyses.

GEOG 442 Biogeography (3) Prerequisite: GEOG342 or equivalent. Recommended: GEOG123. Credit will be granted for only one of the following: GEOG442, GEOG447, or GEOG484. Formerly GEOG 447. Current Biogeographical topics of global significance, including a consideration of measurement techniques, and both descriptive and mechanistic modeling. Topics may include: scale in biogeography, climate and vegetation, global carbon cycle, biodiversity, interannual variability in the biosphere, land cover, global biospheric responses to climate change, NASA's Mission to Planet Earth and Earth Observation System.

GEOG 445 Climatology (3) Prerequisite: GEOG345. Credit will be granted for only one of the following:
GEOG445 or GEOG446. Formerly GEOG 446. Quantitative investigations into the Earth's radiation balance, water cycle, and the interrelationship of climate and vegetation. Methodologies in climate research. Case studies related to global climatic change.

**GEOG 446 Applied Climatology (3)** Prerequisite: GEOG345 or permission of department. Components of earth's radiation balance and energy budgets: radiation, soil heat flux and the evaporation process. Measurement and estimation techniques. Practical applications of microclimatological theory and techniques.

**GEOG 456 The Social Geography of Metropolitan Areas in Global Perspective (3)** A socio-spatial approach to human interaction within the urban environments: ways people perceive, define, behave in, and structure world cities and metropolitan areas. Cultural and social differences define spatial patterns of social activities which further define distinctions in distribution and interaction of people and their social institutions.

**GEOG 471 Advanced Computer Cartography (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: GEOG371. Credit will be granted for only one of the following: GEOG471 or GEOG481. Formerly GEOG 481. Advanced topics and skills of computer map mapping using more sophisticated software package. Map projection evaluation and selection, coordinate system conversion, techniques of quantitative thematic mapping, map design and generalization, hypermedia and animated cartography. Emphasis on designing and making cartographically sound sophisticated thematic maps.

**GEOG 472 Remote Sensing: Digital Processing and Analysis (3)** Prerequisite: GEOG306, GEOG372 or equivalent. Credit will be granted for only one of the following: GEOG472 or GEOG480. Formerly GEOG 480. Digital image processing and analysis applied to satellite and aircraft land remote sensing data. Consideration is given to preprocessing steps including calibration and geo registration. Analysis methods include digital image exploration, feature extraction thematic classification, change detection, and biophysical characterization. One or more application examples may be reviewed.

**GEOG 473 Geographic Information Systems and Spatial Analysis (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: GEOG373. Credit will be granted for only one of the following: GEOG473 or GEOG482. Formerly GEOG 482. Analytical uses of geographic information systems; data models for building geographic data bases; types of geographic data and spatial problems; practical experience using advanced software for thematic domains such as terrain analysis, land suitability modeling, demographic analysis, and transportation studies.

**GEOG 475 Computer Cartography (3)** Prerequisite: GEOG373. Credit will be granted for only one of the following: GEOG471 or GEOG475. Formerly GEOG 471. Advanced skills of computer mapping using more sophisticated software packages. Map projection evaluation and selection, coordinate system conversion, techniques of quantitative thematic mapping, map design and generalization, hypermedia and animated cartography. Emphasis on designing and making cartographically sound sophisticated thematic maps.

**GEOG 476 Programming for Geographers (3)** Prerequisite: GEOG306 or equivalent. Credit will be granted for only one of the following: GEOG498G or GEOG476. Formerly GEOG 498G. An introduction to programming for geography. Introduces the concepts of computer programming as applied to Geography. Implementation language is Visual Basic.

**GEOG 496 NASA Academy (4)** Two hours of lecture and four hours of laboratory per week. Prerequisite: College Permission. Junior standing. Also offered as CMPS496 and ENES496. Credit will be granted for only one of the following: CMPS496, GEOG496 or ENES496. A ten-week resident summer institute at Goddard Space Flight Center for juniors, seniors and first-year graduate students interested in pursuing professional and leadership careers in aerospace-related fields. The national program includes research in a Goddard laboratory, field trips to NASA centers, and a combination of lectures and workshops on the mission, current activities and management of NASA. Students interested in the Academy will find information at http://nasa-academy.nasa.gov Application should be made by the end of January; sponsorship by an affiliated State Space Grant Consortium is customary, but not required.

**GEOG 498 Topical Investigations (1-3)** Restricted to advanced undergraduate students with credit for at least 24 hours in geography and to graduate students. Any exceptions should have approval of department. Repeatable to 6 credits if content differs. Independent study under individual guidance.
Chapter 8: Approved Courses

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<td>386-387</td>
<td>Campus-wide internship courses; refer to</td>
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<td>information describing Experiential Learning</td>
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<td>400-499</td>
<td>Junior, senior course acceptable for credit</td>
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<td>toward some graduate degree</td>
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<tr>
<td>500-599</td>
<td>Professional School course (Dentistry, Architecture,</td>
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<td>Law, Medicine) or post-baccalaureate course</td>
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<tr>
<td>600-899</td>
<td>Course restricted to graduate students</td>
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<tr>
<td>799</td>
<td>Master Thesis credit</td>
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<td>899</td>
<td>Doctoral Dissertation credit</td>
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Use the search box below to view the approved courses.

**Select Program:** GEOL - Geology

**Course Number:**

Courses in "GEOL-Geology"

GEOL - Geology

**GEOL 100 Physical Geology (3)** Credit will be granted for only one of the following: GEOL100 or GEOL120. A general survey of the rocks and minerals composing the earth, its surface features and the agents that form them, and the dynamic forces of plate tectonics.

**GEOL 102 Historical Geology (4)** Three hours of lecture and three hours of laboratory per week. Prerequisite: GEOL100 or GEOL120, and GEOL110 or permission of department. Earth's history as revealed through the principles of stratigraphy and the processes of physical geology. Emphasis on formations and geologic development of the North American continent.
GEOL 104 Dinosaurs: A Natural History (3) Dinosaurs, their evolution and extinction in the context of changing environments. Students will examine the geologic record and the tools used by geologists to determine geologic ages and sequences, dinosaur biology and classification, dinosaur social structure, and their role in the ecosystem. Mechanisms of global change ranging from plate tectonics to asteroid impact will be discussed.

GEOL 110 Physical Geology Laboratory (1) Three hours of laboratory per week. Pre- or corequisite: GEOL100 or GEOL120. The basic materials and tools of physical geology stressing familiarization with rocks and minerals and the use of maps in geologic interpretations.

GEOL 120 Environmental Geology (3) Credit will be granted for only one of the following: GEOL100 or GEOL120. A review of geologic factors underlying many environmental problems and the interactions between population and physical environment: geologic hazards, land-use planning, conservation, mineral resources, waste disposal, land reclamation, and the geologic aspects of health and disease. The course is aimed at lower division students in education and liberal arts, and should be useful to any student concerned with geologic perspectives of environmental problems.

GEOL 123 Causes and Implications of Global Change (3) Also offered as AOSC123 and GEOG123. Credit will be granted for only one of the following: AOSC123, GEOG123, GEOL123, or METO123. This course offers a unique experience in integrating physical, chemical, geologic, and biological sciences with geographical, economic, sociological and political knowledge skills toward a better understanding of global change. Review of environmental science relating to weather and climate change, acid precipitation, ozone holes, global warming, and impacts on biology, agriculture, and human behavior. Study of the natural, long-term variability of the global environment, and what influence mankind may have in perturbing it from its natural evolution. Concepts of how physical, biological, and human behavioral systems interact, and the repercussions which may follow from human endeavors. The manner in which to approach decision and policy making related to issues of global change.

GEOL 210 Gems and Gemstones (3) A survey of the origin, occurrences, properties, fashioning, and treatments of natural and synthetic materials, with emphasis on diamonds and colored stones.

GEOL 212 Planetary Geology (3) An examination of the geologic and geochemical processes at work in the solar system from the perspectives supplied by space age exploration of the planets and other solar system bodies.

GEOL 214 Global Energy Systems and Resources (3) Prerequisite: A course in the natural sciences, environmental policy, geography, or permission of the instructor. Possible courses include: CPS123, ENSP101, ENSP102, GEOG100, GEOG201, GEOL100, GEOL120, MATH140, or PHYS117, CHEM131 and CHEM132, CHEM135 and CHEM136, or CHEM103. Focuses on energy systems and resources on a global scale. It addresses energy transfer in natural systems, distribution of energy resources in the natural world, and problems of efficiency and limited energy resources. It is appropriate for those interested in science and technical energy issues as well as policy, education and the media.

GEOL 288 Field Studies I (1) Repeatable to 3 credits if content differs. Examination and investigation of Earth Science phenomena in the field, particularly geology. Involves fieldwork of one week or longer duration, which work normally includes both observation and data collection. Particular programs may require certain prerequisites. Permission of Instructor is required. Special fees may be necessary.

GEOL 322 Mineralogy (4) Three hours of lecture and three hours of laboratory per week. Prerequisites: GEOL100 or GEOL120, GEOL110; and one of the following: CHEM131 and CHEM132, CHEM135 and CHEM136; or CHEM103. Basic mineralogy for geology majors. The principles of morphologic crystallography, crystal chemistry, and determinative mineralogy.

GEOL 331 Principles of Paleontology (4) Three hours of lecture and three hours of laboratory per week. Prerequisites: GEOL100 or GEOL120, GEOL110, and GEOL102; or permission of department. A review of the theory, principles, and applications of Paleontology. A systematic overview of the morphology, evolution, and relationships of the major fossil-producing taxa.

GEOL 340 Geomorphology (4) Three hours of lecture and three hours of laboratory per week. Two Saturday field trips. Prerequisite: GEOL100 or GEOL120. Analysis of landforms, organized on the basis of the geologic processes that have operated during the late Cenozoic. Constructional and erosional landforms related to physical systems operating on geologic structures through time.

GEOL 341 Structural Geology (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: GEOL100 or GEOL120, GEOL110, and GEOL102; or permission of department. Study of the deformation of Earth's lithosphere, especially stress, rheology, strain, and the origin and significance of structural features. Development of 3-dimensional thinking through drafting and drawing of structures, construction of geologic maps and cross-sections, and stereographic and orthographic representation of structures. Improvement of scientific writing. Two weekend field trips.

GEOL 342 Sedimentation and Stratigraphy (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: GEOL100 or GEOL120, GEOL110, and GEOL322; and one of the following: CHEM131 and
CHEM132, CHEM135 and CHEM136, or CHEM103. Description, origin, and distribution of sediments and sedimentary rocks. Mandatory field trip.

**GEOL 346 Cycles in the Earth System (3)** Prerequisite: MATH140, AOSC/GEOG/GEOL123, or permission of department. Recommended: MATH141, PHYS141, PHYS171, or PHYS161. Also offered as AOSC346, GEOG346. Credit will be granted for only one of the following: AOSC346, GEOG346, or GEOL346. The Earth System operates through a vast array of cycles fundamental to the Earth's environment such as water, energy, and the Carbon Cycle. This course will build on GEOL/GEOG/AOSC123 starting with an introduction to the concepts of feedbacks within the Earth System, global energy balance and the Greenhouse Effect. A brief introduction to the atmospheric and oceanic circulation will lead to the water cycle connecting the land, ocean, and atmosphere to the Earth System. Introduction to the Global carbon, nitrogen, and sulfur cycles will be followed by the concept of long-term climate regulation and short-term climate variability. The concepts of cycles, feedbacks, forcings, and responses in the Earth System will be applied to Global Warming and Ozone Depletion.

**GEOL 375 Introduction to the Blue Ocean (3)** Prerequisite: MATH140. Recommended: MATH141, PHYS161, or PHYS171. Also offered as AOSC375. Credit will be granted for only one of the following: AOSC375, GEOL375, or METO375. Introduction to physical, chemical, and biological properties of the ocean. Role of the ocean in climate as a component of the Earth system. El Nino and the ocean, impact of global warming on the ocean and marine habitats including fisheries.

**GEOL 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.

**GEOL 388 Field Studies II (3)** Repeatable to 6 credits if content differs. Examination and investigation of Earth Science phenomena in the field, particularly geology. Involves field work of one week or a longer duration, which would normally involve both observations and data collection, with associated classroom lectures and/or laboratory study, normally including additional analysis of collected observations and data. Particular programs may require certain prerequisites. Permission of instructor required. Special fees may be necessary.

**GEOL 393 Technical Writing for Geoscientists (3)** Prerequisites: For GEOL majors only; minimum of Junior standing and at least 2 upper level GEOL courses with at least a third GEOL course concurrent. Planning, writing and presenting a plan for research in the geosciences.

**GEOL 394 Research Problems in Geology (3)** Prerequisite: For GEOL majors only; minimum of Junior standing, GEOL393 and at least 3 upper level GEOL courses. Investigation of a specific laboratory, library or field problem. Written and oral presentation of the study.

**GEOL 410 Industrial Rocks and Minerals (3)** Prerequisite: GEOL322. The origin; occurrence; mineralogy; extraction and treatment technology; production and deposit-evaluation of rocks and minerals used in the construction, ceramic, chemical and allied industries. Restricted to non-fuels, non-metallic, non-gem materials. Field trips to industrial locations are required.

**GEOL 423 Optical Mineralogy (3)** One hour of lecture and four hours of laboratory per week. Prerequisites: GEOL100 or GEOL120, GEOL110, GEOL322, and one of the following: CHEM131 and CHEM132, CHEM135 and CHEM136, or CHEM103. The optical behavior of crystals with emphasis on the theory and application of the petrographic microscope.

**GEOL 436 Principles of Biogeochemistry (3)** Three hours of lecture per week. Prerequisite: MATH140 or MATH220, GEOL100 or GEOL120, GEOL322, and one of the following: CHEM131 and CHEM132, CHEM135 and CHEM136, or CHEM103. An introduction to the basic principles of biogeochemistry including aspects of organic geochemistry, biochemistry, microbiology, global geochemical cycles, the origin of life and paleoenvironmental evolution.

**GEOL 437 Global Climate Change: Past and Present (3)** Prerequisite: MATH115 or MATH140; GEOL100 or GEOL120, and one of the following: CHEM131 and CHEM132, CHEM135 and CHEM136, or CHEM103. The goal of the course is to highlight the fact that global climate change is part of the Earth's past as well as of its present and future. Changes in climate that have occurred in the geologic past can be viewed as the Earth's natural climate variability. These changes are different from, though could be linked with, historical and present anthropogenically-induced climate change. We will discuss the modern climate system, the factors capable of forcing climate change on various time scales, the geologic proxies of past climate change and what these proxies tell us. Finally, we will compare and contrast past climate change with what is understood (and not understood) about modern climate change.

**GEOL 443 Petrology (4)** Two lectures and one laboratory per week. Prerequisites: GEOL100 or GEOL120, GEOL110, and GEOL322, and one of the following: CHEM131 and CHEM132, CHEM135 and CHEM136, or CHEM103. Corequisite: GEOL423 or permission of department. Study of igneous and metamorphic rocks: petrogenesis, distributions, chemical and mineralogical relations, macroscopic and microscopic descriptions, geologic significance.

**GEOL 444 Low Temperature Geochemistry (4)** Three hours of lecture and three hours of laboratory per week. Prerequisite: CHEM103, or CHEM135 and CHEM136; MATH115, GEOL100, and GEOL322. Basic chemical principles, thermodynamics, and kinetics of low-temperature inorganic and organic geochemical
reactions in a wide range of surface environments. These geochemical tools will be used to provide a context for understanding elemental cycling and climate change. Laboratories will include problem sets as well as wet chemical and mass spectrometric techniques used in low temperature geochemistry.

**GEOL 445 High Temperature Geochemistry (4)** Three hours of lecture and three hours of laboratory per week. Prerequisite: CHEM103, or CHEM135 and CHEM136; MATH115, GEOL100, and GEOL322. Review of chemical principles and their use in understanding processes of Earth, and solar system formation and differentiation. Topics include nucleosynthesis and cosmochemical abundances of elements, bonding and element partitioning, equilibrium thermodynamics and phase stabilities, radiogenic isotopes and geochronology, kinetics, and diffusion.

**GEOL 446 Geophysics (3)** Prerequisite: MATH140, MATH141, and PHYS141. Introduction to solid earth geophysics, heat transfer, fluid flow, gravity, geomagnetism, rock and mineral physics, seismology, exploration geophysics. Basic knowledge of integral and differential calculus is required.

**GEOL 451 Groundwater (3)** Prerequisites: MATH140, GEOL100 or GEOL120, GEOL110 and one of the following: CHEM131 and CHEM132, CHEM135 and CHEM136, or CHEM103; or permission of department. Junior standing. An introduction to the basic geologic parameters associated with the hydrologic cycle. Problems in the accumulation, distribution, and movement of groundwater will be analyzed.

**GEOL 452 Watershed and Wetland Hydrology (3)** Prerequisite: permission of department. Junior standing. Physical processes by which water moves in watershed and wetland systems. Topics include: precipitation, infiltration, flow in the unsaturated zone, streamflow generation processes, and groundwater flow.

**GEOL 453 Remote Sensing (3)** One lecture and two laboratories per week. Prerequisite: One of the following: GEOL100/110; GEOL120/110; or GEOL103. An introduction to geologic remote sensing including applications of aerial photographic interpretation to problems in regional geology, engineering geology, structural geology, and stratigraphy. Films, filters, and criteria used in selecting imagery are also discussed. Laboratory exercises include measurements of geologic parameters and compilation and transference of data to base maps.

**GEOL 471 Geochemical Methods of Analysis (3)** Prerequisite: One of the following: CHEM131 and CHEM132, CHEM135 and CHEM136, or CHEM103 and CHEM113. Principles and application of geochemical analysis as applied to a variety of geological problems. X-ray and optical spectroscopy, X-ray diffraction, atomic absorption, electron microprobe, and electron microscopy.

**GEOL 472 Tectonics (3)** Prerequisites: GEOL100 or GEOL120, GEOL110, GEOL102, and GEOL341; or permission of department. Selected tectonic elements of orogenic belts through out the world viewed in the framework of plate tectonics and sea floor spreading.

**GEOL 473 Special Topics (3)** Prerequisites: For GEOL majors only; minimum of Junior standing and a least 2 Upper Level GEOL courses with at least a third GEOL course and GEOL393 concurrent. Recent advances in geology.

**GEOL 474 Environmental Geology Field Camp (3-6)** Prerequisites: GEOL341 and GEOL443. Intense field geology course taught off campus during the summer. Students describe and compile maps of formations and structures from outcrops, subsurface, and remotely sensed data. Special fees required.

**GEOL 475 Special Problems in Geology (1-3)** Prerequisites: GEOL100 or GEO120, GEOL110, GEOL102; or equivalent; and permission of department. Intensive study of a special geologic subject or technique selected after consultation with instructor. Intended to provide training or instruction not available in other courses which will aid the student's development in his or her field of major interest.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

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<td>100-199</td>
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Use the search box below to view the approved courses.

Select Program: GERM - Germanic Studies

Course Number: Search

Courses in "GERM-Germanic Studies"

GERM - Germanic Studies

GERM 101 Elementary German I (4) One hour of laboratory and four hours of discussion/recitation per week. Formerly GERM 111. Introduction to basic structures and pronuciation by emphasis on the four skills: listening, speaking, reading and writing. Readings concern the current lifestyle and civilization of the German-speaking world.

GERM 102 Elementary German II (4) One hour of laboratory and four hours of discussion/recitation per week. Prerequisite: GERM101 or equivalent. Formerly GERM 112. A continuation of GERM 101, completing the introduction of basic structures and continuing the involvement with the civilization of the German-speaking world.
GERM 103 Intensive Elementary German (4) One hour of laboratory and four hours of discussion/recitation per week. Not open to students who have completed GERM101, GERM102, more than two years of high school German, or to fluent/native speakers of German. Credit will be granted for only one of the following: GERM102 or GERM103. Covers speaking, reading, writing, listening, and culture of German-speaking world.

GERM 148 Germanic Languages - Elementary I (3) Repeatable to 6 credits if content differs. Basic instruction in a Germanic language other than German; Yiddish and Swedish are offered regularly, Danish, Netherlandic, and Norwegian when demand is sufficient. Subtitle will reflect the language. May be repeated in a different language.

GERM 149 Germanic Languages - Elementary II (3) Prerequisite: GERM148 in the same language. Continuation of GERM148. May be repeated in a different language. Subtitle will reflect the language.

GERM 201 Intermediate German I (4) One hour of laboratory and four hours of discussion/recitation per week. Prerequisite: GERM102. Grammar review and greater mastery of vocabulary, idioms, conversational fluency, and compositional skills. Readings stress the current lifestyle and civilization of the German-speaking world.

GERM 202 Intermediate German II (4) Four hours of lecture and one hour of laboratory per week. Prerequisite: GERM201. Continuation of GERM201. Grammar review and greater mastery of vocabulary, idioms, conversational fluency and compositional skills. Readings stress the current lifestyle and civilization of the German-speaking world.

GERM 203 Intensive Intermediate German (4) Prerequisite: GERM103 or equivalent. Not open to students who have completed GERM201, GERM202, four years of high school German, or to fluent/native speakers of German. Credit will be granted for only one of the following: GERM202 or GERM203. Covers speaking, reading, writing, listening, and culture of German-speaking world.

GERM 204 German Grammar Review (3) Three hours of lecture per week. Prerequisite: GERM203 or level 4 of high school German. Not open to fluent/native speakers. An in-depth study and analysis of selected grammatical topics in a contextualized framework.

GERM 220 Introduction to German Literature (3) Prerequisite: GERM203. Reading and discussion of major authors with emphasis on contemporary German literature. Readings and instruction in German.

GERM 248 Germanic Languages Intermediate - I (3) Prerequisite: GERM149 in the same language. Intermediate instruction in a Germanic language other than German. May be repeated in a different language. Subtitle will reflect the language.

GERM 249 Germanic Languages - Intermediate II (3) Prerequisite: GERM248 in the same language. Continuation of GERM248. May be repeated in a different language. Subtitle will reflect the language.

GERM 280 German-American Cultural Contrasts (3) A study of German-American culture in contemporary literature.

GERM 281 Women in German Literature and Society (3) Also offered as WMST281. Credit will be granted for only one of the following: GERM281 or WMST281. A study of changing literary images and social roles of women from the beginning of the 19th century to the present.

GERM 282 Germanic Mythology (3) An introduction to the religious beliefs of the pagan Germanic peoples. Comparison of Germanic myths with those of other Indo-European peoples. The conversion of the Germania to Christianity and the preservation of pagan beliefs in superstition and literature.

GERM 283 Viking Culture and Civilization (3) Formerly GERM 383. An introduction to the lifestyle of northern Europe in the 9th to 11th centuries. Readings and instruction in English.

GERM 284 German Chivalric Culture (3) Formerly GERM 384. An introduction to the lifestyle of northern Europe in the 12th to 14th centuries. Readings and instruction in English.

GERM 285 German Film and Literature (3) A visual approach to German literature through a study of the historical, cultural, and literary significance of German films. Representative examples from the golden age of German silent films to the new German cinema.

GERM 287 Ancient Celtic Culture and Civilization (3) Formerly GERM 372. An introduction to the culture and civilization of the Ancient Celts; religion, arts, ethics and law of the continental and island Celts. Focus on the Ulster and Fenian cycles in Ireland; Taliesin, Aneirin and the Mabinogion in Wales. Reconstruction of the lifestyle of the period. Instruction and readings in English.
GERM 289 Selected Topics in the Cultures of the Germanic Speaking Countries (3) Prerequisite: permission of instructor. Repeatable to 6 credits if content differs. Topics in the cultures of the Germanic speaking countries.

GERM 299 Special Topics in Germanic Studies (3) Prerequisite: permission of department. Repeatable to 9 credits if content differs.

GERM 301 Conversation and Composition I: Germany and Its People (3) Prerequisite: GERM204 or equivalent. Practice in contemporary spoken and written German. Systematic review of grammar, and exercises in composition. Emphasis on cultural contrasts.

GERM 302 Conversation and Composition II: Current Topics in German Society (3) Prerequisite: GERM301 or equivalent. Further practice in contemporary spoken and written German. Contemporary social, political, and cultural themes.

GERM 315 Practicum in Translation I (3) Prerequisite: GERM204 or equivalent. Problems and strategies of translation from German to English.

GERM 316 Practicum in Translation II (3) Prerequisite: GERM315 or equivalent. Continuation of problems and strategies of translation from English to German and German to English.

GERM 319 Selected Topics in Germanic Language Studies (1-3) Prerequisite: GERM203 or equivalent. Repeatable to 6 credits if content differs.

GERM 321 Highlights of German Literature I (3) Prerequisite: GERM220 or equivalent. Selected masterworks from different periods of German literature: middle ages, reformation, baroque, 18th century, classicism. Readings and instruction in German.

GERM 322 Highlights of German Literature II (3) Prerequisite: GERM220 or equivalent. Selected masterworks from different periods of German literature: romanticism, Biedermeier, Junges Deutschland, realism, naturalism and its counter currents, expressionism to the present. Readings and instruction in German.

GERM 339 German Literature In Translation (3) Repeatable to 6 credits if content differs. Selected movements, genres or other special topics in German literature. Readings and instruction in English. May not be counted in the fulfillment of German major requirements in German literature.

GERM 349 Germanic Literatures in Translation (3) Repeatable to 6 credits if content differs. Study of an important author, period or theme in a Germanic literature other than German: Yiddish, Netherlandic or Scandinavian. Readings and instruction in English.

GERM 360 Women in Scandinavian Literature (3) Prerequisite: a literature, culture, diversity course or permission of department. Introduction to and examination of women’s creative work in Scandinavia from the Middle Ages to the present.

GERM 368 Scandinavian Civilization (3) Repeatable to 6 credits if content differs. Literary, artistic and historic traditions, folklore and superstition, customs and lifestyle shared by Scandinavian nations. Readings and instruction in English.

GERM 369 Scandinavian Literature in Translation (3) Repeatable to 6 credits if content differs. Study of a major Scandinavian author, genre, period or theme. Readings and instruction in English.

GERM 381 German Civilization I (3) A survey of the literary, educational and artistic traditions, great men and women, customs and general culture of the German-speaking world from the beginnings to the middle of the 18th century. All readings and instruction are in English.

GERM 382 German Civilization II (3) A continuation of GERM381 covering the development of German, Austrian and Swiss civilizations from the middle of the 18th century to the present. All readings and instruction are in English.

GERM 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

GERM 388 Language House Spring Colloquium (1) Prerequisite: Residence in Language House. Repeatable to 8 credits. For students residing in the Language House Immersion Program. Focuses on the development of skills in the target language and acquiring the cultural knowledge of the countries that speak the target language.

GERM 389 Topics in Germanic Culture (3) Repeatable to 6 credits if content differs. Topics in the cultures
of the German, Germanic, Indo-European peoples and of their culturally related non-Indo-European neighbors. Instruction in English.

**GERM 397 Honors Reading (Independent Study) (3)** Supervised reading to be taken normally only by students admitted into honors program.

**GERM 398 Honors Research (3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs. Prepares students to write an honors thesis. Under the direction of a German department faculty member, the student will select a thesis topic and conduct the necessary research.

**GERM 399 Selected Topics in Germanic Studies (3)** Prerequisite: permission of department. Repeatable to 9 credits if content differs.

**GERM 401 Advanced Conversation: Germany within Europe (3)** Prerequisite: GERM302 or equivalent. Development of fluency in spoken German. Discussion of contemporary issues related to Germany in context of Europe.

**GERM 403 Advanced Composition: German Cultural and Social Issues (3)** Prerequisite: GERM302 or equivalent. Advanced instruction in writing skills. Contemporary and/or historical treatment of cultural and social issues.

**GERM 405 Stylistics (3)** Prerequisite: GERM302 or equivalent. Stylistic analysis of oral and written German both literary and non-literary. Intensive study of vocabulary and syntax. Dictionary and composition exercises.

**GERM 411 German for International Business I (3)** Prerequisite: GERM302 or equivalent or permission of department. Advanced skills in German for international business, including understanding and writing correspondence, reports, graphics, ads, etc., according to current German commercial style.

**GERM 412 German for International Business II (3)** Prerequisite: GERM411 or equivalent or permission of department. Continuation of GERM411.

**GERM 415 German/English Translation I (3)** Does not fulfill major requirements in German. Not open to students who have completed GERM101, GERM102, GERM103, GERM201, GERM202, GERM203, GERM204, GERM301, or GERM302. An intensive presentation of German grammar limited exclusively to reading skill; graded readings in the arts and sciences. Instruction in English; cannot be used to satisfy the arts and humanities foreign language requirement.

**GERM 416 German/English Translation II (3)** Prerequisite: GERM415 or equivalent. Written translation of materials from the student’s field of study. Discussion of basic problems of German-to-English translation, with examples from students’ projects. Instruction in English. Cannot be used to satisfy the arts and humanities foreign language requirement.

**GERM 419 Selected Topics in German Language Study (3)** Prerequisite: GERM302 and permission of department. Repeatable to 6 credits if content differs.

**GERM 421 Literature of the Middle Ages (3)** Prerequisite: GERM321 and 322 or permission of department. German literature from the 8th through the 15th centuries. Readings include Old High German texts; the German heroic, courtly and popular epic; Minnesang, Meistersang, the late Medieval epic: folk literature of the late Middle Ages. Read in modern German translation.

**GERM 422 From the Reformation Through the Baroque (3)** Prerequisite: GERM321 and GERM322 or permission of department. Readings of representative authors from the reformation and the period of humanism through the baroque (ca. 1450-1700). Readings and instruction in German.

**GERM 423 From Enlightenment through Storm and Stress (3)** Prerequisite: GERM321 and GERM322 or permission of department. Readings of representative authors from the Enlightenment (1720-1785), the Age of Sentimentalism (1740-1780), and Storm and Stress (1767-1785). Readings and instruction in German.

**GERM 424 Classicism (3)** Prerequisite: GERM321 and GERM322, or permission of department. Readings of representative authors from the Age of Classicism (1786-1832). Readings and instruction in German.

**GERM 431 Romanticism and Biedermeier (3)** Prerequisite: GERM321 and GERM322, or permission of department. Readings of representative authors from the periods of Romanticism (1798-1835) and Biedermeier (1820-1850). Readings and instruction in German.

**GERM 432 Junges Deutschland and Realism (3)** Prerequisite: GERM321 and 322, or permission of department. Readings of representative authors from the periods of Junges Deutschland (1830-1850) and...
Realism (1850-1890). Readings and instruction in German.

GERM 433 Naturalism and Its Counter Currents (3) Prerequisite: GERM321 and GERM322, or permission of department. Readings of representative authors from the period of naturalism and its counter currents (1880-1920). Readings and instruction in German.

GERM 434 Expressionism to 1945 (3) Prerequisite: GERM321 and GERM322, or permission of department. Readings of representative authors from Expressionism through the period between the wars to the contrast of Nazi and Exile Literature (ca. 1910-1945). Readings and instruction in German.

GERM 435 From 1945 to the Present (3) Prerequisite: GERM321 and GERM322, or permission of department. Readings of representative authors from Germany, Austria, and Switzerland in the period from the end of World War II to the present. Readings and instruction in German.

GERM 439 Selected Topics in German Literature (3) Prerequisites: (GERM321 and GERM322) or permission of department. Repeatable to 6 credits if content differs. Special study of an author, school, genre, or theme. Readings and instruction in German.

GERM 449 Selected Topics in Germanic Studies (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Study of a linguistic, literary or cultural topic in Yiddish, Netherlandic, or Scandinavian studies.

GERM 461 Reading Swedish, Danish and Norwegian I (3) Not open to students who have completed GERM148S, GERM149S, GERM148D, GERM149D, GERM148N or GERM149N. Develops reading facility in three languages in one semester, using modern Scandinavian texts from a variety of fields.

GERM 463 The Icelandic Family Saga (3) Analysis of the old Norse saga as historiography, literature, and folklore. Readings and instruction in English.

GERM 472 Introduction to Germanic Philology (3) Prerequisite: GERM202 or equivalent. Reconstructed proto-Germanic and surveys of Gothic, Old Norse, Old English, Old Saxon. The development of High German from the Old High German period through Middle High German to modern German; a short introduction to modern German dialectology. Instruction in English.

GERM 475 Old Norse (3) The language of the old Icelandic saga, the Eddas and Skaldic poetry. Reading of texts in the original; historical development of Old Norse and its role in the Germanic language family. No knowledge of German or a Scandinavian language required; instruction in English.

GERM 479 Selected Topics in Germanic Philology (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Selected topics such as comparative Germanic studies, Old Norse language or readings in Old Norse literature, modern German dialectology.

GERM 489 Selected Topics in Area Studies (1-3) Prerequisite: GERM302 or equivalent or permission of department. Repeatable to 6 credits if content differs.

GERM 498 Honors Thesis Writing (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Required for students pursuing departmental honors in Germanic languages and literatures. Under the direction of a German department faculty member, students write their honors theses.

GERM 499 Directed Study (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs.

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Chapter 8: Approved Courses

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<td>500-599</td>
<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
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Use the search box below to view the approved courses.

Select Program: GREK - Greek
Course Number: ____________________________

Search

Courses in "GREK-Greek"

GREK - Greek

**GREK 101 Elementary Ancient Greek I (4)** A student who has had two units of Greek in high school may register for GREK101 for purposes of review but not for credit. Study of basic grammar, development of reading facility, and introduction to Athenian life and culture in the fifth century B.C.

**GREK 102 Elementary Ancient Greek II (4)** Prerequisite: GREK101 or equivalent. Continuing development of basic grammar and reading skills; study and discussion of central aspects of Greek culture.

**GREK 111 Elementary Modern Greek I (3)** Not open to native speakers of Greek. Credit will be granted for only one of the following: FOLA108G or GREK111. Formerly FOLA 108G. An introduction to the language and
culture of modern Greece. Students begin to acquire the basic tools of the language and to communicate, in simple everyday situations. This is the first of our two-semester sequence in Elementary Modern Greek and contributes to the fulfillment of the foreign language requirement of the College of Arts and Humanities.

**GREK 112 Elementary Modern Greek II (3)** Not open to native speakers of Greek. Prerequisite: GREK111 or permission of instructor. Credit will be granted for only one of the following: FOLA109G or GREK112. Formerly FOLA 109G. It is designed for students who have already completed the first semester course (GREK111) and/or those whose level of proficiency in Greek is not advanced enough for the intermediate level. Like GREK111, an introduction is provided to the language and culture of modern Greece. Students acquire the basic tools of the language and learn to communicate in simple, everyday situations. This is the second of our two-semester sequence in Elementary Modern Greek and contributes to the fulfillment of the foreign language requirement of the College of Arts and Humanities.

**GREK 201 Intermediate Ancient Greek (4)** Prerequisite: GREK102 or equivalent. Advancing beyond the basic skills developed in GREK 101 and GREK 102; review of selected grammatical concepts; continuous reading of passages from Greek literature.

**GREK 211 Intermediate Modern Greek I (3)** Not open to native speakers of Greek. Prerequisite: GREK112 or permission of instructor. Credit will be granted for only one of the following: FOLA118G or GREK211. Formerly FOLA 118G. A continuation of the study of basic structures and the development of fluency in functional, spoken and written communication. This is the first of our two-semester sequence in Intermediate Modern Greek and contributes to the fulfillment of the foreign language requirement of the College of Arts and Humanities.

**GREK 212 Intermediate Modern Greek II (3)** Prerequisite: GREK211 or permission of instructor. Credit will be granted for only one of the following: FOLA119G or GREK212. Formerly FOLA 119G. A continuation in the development of fluency in spoken and written communication along with the exploration of syntactic and grammatical structures. Comprehension and vocabulary enrichment are further developed through selected readings from Modern Greek prose and poetry. This is the second of our two-semester sequence in Intermediate Modern Greek and contributes to the fulfillment of the foreign language requirement of the College of Arts and Humanities.

**GREK 301 Scenes from Athenian Life (3)** Credit will be granted for only one of the following: GREK301 or GREK351. Formerly GREK 351. Makes the transition from study of Greek grammar to reading. Focus on selected aspects of life in Athens: marriage, friendship, the courts, festival, theatre. Reading short works by three authors: Lysias, Plato, and a playwright (e.g., Menander).

**GREK 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**GREK 402 Greek Philosophers (3)**

**GREK 403 Greek Tragedy (3)**

**GREK 415 Homer (3)** Prerequisite: permission of department. Extensive readings in Greek from the Iliad and the Odyssey, with special attention to the features of Homeric style and the similarities and differences between the two epics.

**GREK 472 History and Development of the Greek Language (3)** Prerequisite: permission of instructor. Mastery of ancient Greek through grammar review, prose composition, and analysis of historical developments in Greek writers' modes of expression.

**GREK 488 Greek Readings (3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs. The reading of one or more selected Greek authors. Reports.

**GREK 499 Independent Study in Greek Language and Literature (1-3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: GVPT - Government and Politics

Course Number: Search

Courses in "GVPT-Government and Politics"

GVPT - Government and Politics

GVPT 100 Principles of Government and Politics (3) A study of the basic principles and concepts of political science.

GVPT 170 American Government (3) A comprehensive study of national government in the United States.

GVPT 200 International Political Relations (3) Prerequisite: GVPT100. A study of the major factors underlying international relations, the methods of conducting foreign relations, the foreign policies of the major powers, and the means of avoiding or alleviating international conflicts.
GVPT 210 Introduction to Public Administration and Policy (3) Prerequisite: GVPT170. An introduction to the study of the administrative process in the executive branch with an examination of the concepts and principles of administration and their relationship to public policy. The organizational structure, theory and the behavior of participants in the administration of policy.

GVPT 220 Introduction to Political Behavior (3) Prerequisite: GVPT100 or GVPT170. Development, concepts and techniques of the behavioral approach to political science and other recent developments in the field.

GVPT 221 Introduction to Formal Theories of Political Behavior and Politics (3) Prerequisite: GVPT170. An introduction to the theories of rational choice including theories of negotiation and bargaining, elections and voting in democracies, community organizing and the contrast between the roles and performances of government and market.

GVPT 227 The Craft of Political Science Research (4) Three hours of lecture and one hour of laboratory per week. Prerequisite: GVPT100 and GVPT170. Sophomore standing. For BSOS majors only. An introduction to research design and statistics applicable to Political Science.

GVPT 228 The Craft of Political Science Research (4) Three hours of lecture and two and a half hours of laboratory per week. Prerequisite: GVPT170 and GVPT100. Sophomore standing. For BSOS majors only. Repeatable to 8 credits if content differs. Formerly GVPT 227. An introduction to research design and statistics applicable to Political Science.

GVPT 231 Law and Society (3) A study of the basis of law and its relationship with various contemporary institutions such as the courts, the legal profession, and society at large.

GVPT 240 Political Ideologies (3) Prerequisite: GVPT100. A survey and analysis of the leading ideologies of the modern world, including anarchism, communism, socialism, fascism, nationalism, and democracy.

GVPT 241 The Study of Political Philosophy: Ancient and Modern (3) Prerequisite: GVPT100. For GVPT majors only. Examines some of the salient continuities and breaks between the ancient and modern traditions in Western political philosophy.

GVPT 250 Introduction to International Negotiation (3) Prerequisite: GVPT100. Recommended: GVPT200. Introduction to the complexities of international negotiation and cross-cultural decision-making. Students will apply advanced computer technology in an interactive simulation involving actual negotiations.

GVPT 260 State and Local Government (3) Prerequisite: GVPT170. A study of the functioning and problems of state and local government in the United States, with illustrations from Maryland jurisdictions.

GVPT 270 Introduction to Public Policy (3) Prerequisite: GVPT170. Complex nature of public policy making at the national level in the United States. Policy making will be described and analyzed in terms of major actors, relationships, and characteristics.

GVPT 272 The Politics of Race Relations in the United States (3) Prerequisite: GVPT170. Political dimension of historical and contemporary racial cleavage in the United States with particular emphasis on the post World War II period.

GVPT 273 Introduction to Environmental Politics (3) A comprehensive overview of environmental problems, institutions, policies, practices, and remedies found in present-day world society, with special emphasis on environmental matters as objects of American public policy, both domestic and foreign.

GVPT 280 Comparative Politics and Governments (3) Prerequisite: GVPT100. An introduction to the comparative study of politics and governance, including the analytical frameworks for studies of politics and governmental institutions and a survey of the major types of European regimes.

GVPT 282 The Government and Politics of the Third World (3) Prerequisite: GVPT100. A study of the governmental institutions, processes and problems, and the socio-economic environment which are common to the great majority of the Third World states of Africa. The Middle East, Asia, and Latin America; and in which internal politics develop.

GVPT 289 Special Topics in Government and Politics (1-6) Repeatable to 6 credits if content differs. Substantive issues of and theoretical approaches to political phenomenon. Topics and credit vary.

GVPT 306 Global Ecopolitics (3) Prerequisite: GVPT200. Consideration of global problems such as the growth controversy, agricultural productivity, pollution, resource depletion, the energy crisis, and the general impact of science and technology on the world ecological, socio-economic, and political system, with particular emphasis on such matters as objects of public policy.
GVPT 309 Topics in International Relations (3) Repeatable to 6 credits if content differs. The study of topics in international relations.

GVPT 319 Topics in Social Advocacy (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Reading, research and discussion of variety of topics related to social advocacy.

GVPT 321 Intermediate Formal Theories of Political Behavior and Politics (3) Prerequisite: GVPT 221 or permission of department. Analysis of the theory of games, social choice, voting and such notions of social welfare as distributive justice and liberty.

GVPT 331 Law and Society (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: GVPT 170 or GVPT 171. Not open to students who have completed GVPT 231. Credit will be granted for only one of the following: GVPT 231 or GVPT 331. Formerly GVPT 231. A study of the basis of law and its relationship with various contemporary institutions such as the courts, the legal profession, and society at large.

GVPT 333 Information Technology and Society (3) Also offered as BSOS 333. Credit will be granted for only one of the following: BSOS 333 or GVPT 333. Multi-disciplinary course utilizes a collaborative research model approach to focus on the influences of information and communication technologies on the way we live, work, learn, and relate to each other and to our community. Given the collaborative nature of the course, students may not drop after the first four weeks of class.

GVPT 339 Topics in Public Law (3) Repeatable to 6 credits if content differs. The study of topics in public law.

GVPT 341 Political Morality and Political Action (3) Prerequisite: GVPT 100. The ethical problems implicit in public actions by individuals, groups, and government. Selected topics in contemporary political theory such as distribution, participation, and equality.

GVPT 349 Topics in Political Philosophy (1-3) Repeatable to 6 credits if content differs. The study of topics in political philosophy.

GVPT 350 International Relations of the Third World (3) Prerequisite: GVPT 200. A systemic view of relations between the industrialized and third world nations examining specific themes such as the legacy of colonialism, the origins and goals of national liberation movements, efforts to promote regional cooperation, and global movements such as nonalignment and the quest for a new international economic order.

GVPT 354 Peacebuilding, Post-Conflict Reconstruction, and International (3) Development Prerequisite: permission of department. Sophomore standing. Also offered as BSOS 354. Credit will be granted for only one of the following: BSOS 354 or GVPT 354. A study of the interrelation between violent conflict and socio-economic development worldwide. Students will become familiar with current strategies for designing and implementing conflict-sensitive development strategies.

GVPT 355 Capstone I: International Development and Conflict Management (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: Only open to students in IDC M Minor Program. Recommended: GVPT 354. This course serves as one-half of the Capstone Session for the Minor in International Development and Conflict Management. It is designed to provide students an introduction to, and a chance to practice with, a core set of practical skills relevant to the fields of international development, humanitarian relief and conflict management. This course must be taken in conjunction with GVPT 356.

GVPT 356 Capstone II: International Development and Conflict Management (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: only open to students in IDC M Minor and GVPT 355. Recommended: GVPT 354. This course serves one-half of the Capstone Course for the Minor in International Development and Conflict Management. It is designed to provide students an introduction to, and a chance to practice with, a core set of practical skills relevant to the fields of international development, humanitarian relief and conflict management. This course must be taken in conjunction with GVPT 355.

GVPT 359 Topics in Comparative Politics (1-3) Repeatable to 6 credits if content differs. The study of topics in comparative politics.

GVPT 376 Applied Field Research in Government and Politics (3-6) Prerequisite: GVPT 170. Corequisite: GVPT 377. Students in this course participate as interns in an agency of government or in some other appropriate political organization. Assignments are arranged to provide students with insights into both theoretical and practical aspects of politics. Under the tutelage of the host agency and an academic adviser, students conduct a major research project of mutual interest to the student and his or her host agency in the field of government and politics.

GVPT 377 Seminar For Academic Interns (3) Prerequisite: GVPT 170. Corequisite: GVPT 376. The application of major concepts of political science to the realities of the political process. Readings and discussion attempt to relate the experiences of the academic interns to appropriate literature on the subject of political decision-making.
GVPT 379 Topics in American Politics (3) Repeatable to 6 credits if content differs. The study of topics in American politics.

GVPT 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

GVPT 388 Topical Investigations (1-3) Prerequisite: one 200-level GVPT course. Repeatable to 6 credits if content differs. Independent research and writing on selected topics in government and politics.

GVPT 389 Experiential Learning II (3-6) Prerequisite: permission of department. Junior standing. Repeatable to 6 credits. Experiential credit for working in Government & Politics related internships, research, and teaching opportunities.

GVPT 396 Introduction to Honors Research (3) Prerequisite: admission to and permission of GVPT Honors Program. A required course for all honors students designed to emphasize library research, methodology, and writing skills in political science and political philosophy. A written proposal, bibliography and research design for an honors paper required of all students as a final project.

GVPT 397 Honors Research (3) Prerequisite: GVPT396 and admission to GVPT honors program. Individual reading and research. Preparation of an original paper.

GVPT 399 Seminar in Government and Politics (3) Prerequisite: one 200-level GVPT course. Reading, research, discussion, analysis, and writing in the area of politics. Both substantive issues and methodological approaches will be considered. Primarily for government and politics undergraduate majors.

GVPT 401 Problems of World Politics (3) Prerequisite: GVPT200. Junior standing. For GVPT majors only. A study of governmental problems of international scope, such as causes of war, problems of neutrality, and propaganda. Students are required to report on readings from current literature.

GVPT 402 International Law (3) Prerequisite: GVPT200. Junior standing. For GVPT majors only. A study of the basic character, general principles and specific rules of international law, with emphasis on recent and contemporary trends in the field and its relation to other aspects of international affairs.

GVPT 403 Law, Morality, War and Terrorism (3) Prerequisite: GVPT200. For GVPT majors only. An exploration of the political and moral concerns involved in the use or threat of use of force in modern international affairs and diplomacy. Topics of intensive study include, among others, comparative and international laws governing terrorism and counter-terrorism, jus ad bellum, jus en bello, preemptive war, institutional legal processes for promoting the use of and enforcing international conflict resolution and arbitrary procedures to prevent or control international violence, and the roles of international courts in trials of war criminals and terrorists.

GVPT 404 Private International Law (3) Prerequisite: GVPT200. Recommended: GVPT402. Junior standing. For GVPT majors only. An introduction to private international law, defined as those substantive laws that a nation or nations have applied to private transactions involving transnational relationships. Private international law is often called the "conflict of laws" because it almost always arises to deal with the existence of a number of separate legal systems in the various states, each practicing their own 'municipal law' in ways that invariably raise real and potential conflicts requiring accommodation and cooperation.

GVPT 405 Defense Policy and Arms Control (3) Prerequisite: GVPT200. For GVPT majors only. Contemporary issues of military strategy and international security are covered, including: nuclear war, conventional (limited war), guerrilla insurgency, arms control, disarmament, moderation of war, defense policy processes, and defense economics.

GVPT 406 International Organizations (3) Prerequisite: GVPT200. Junior standing. For GVPT majors only. Credit will be granted for only one of the following: GVPT309B or GVPT406. Formerly GVPT 309B. A basic introduction to the full range of international organizations that have come into being over the past century and one-half, including those that aspire to be universal or global, those with a geopolitical or regional focus, and those that address specific structural or functional areas of human endeavor or issue areas.

GVPT 407 International Political Economy (3) Prerequisite: GVPT200. Junior standing. For GVPT majors only. Introduces the field of international political economy, which analyzes the ways in which economic and political changes produce both economic and political reactions.

GVPT 409 Seminar in International Relations and World Politics (3) Prerequisite: GVPT200. Junior standing. For GVPT majors only. Repeatable to 6 credits if content differs. Reading, writing, and research on topics in international relations and world politics. Both substantive issues and methodological approaches will be considered.

GVPT 412 Public Financial Administration (3) Prerequisite: GVPT170 and GVPT241. For GVPT majors only. An introduction to public financial administration and management, emphasizing the role of governmental financial administration in the policy making process and in achieving the goals of government. Topics include governmental financial management, budgetary control, public debt management, taxation, public organization costs, evaluation, and policy analysis.

GVPT 415 Comparative Government and Politics (3) Prerequisite: GVPT200. Junior standing. For GVPT majors only. A survey of governmental systems in selected comparative contexts, with an emphasis on issues that arise in cross-national and regional focus, and those that address specific structural or functional areas of human endeavor or issue areas.
the administration of public borrowing, the techniques of public purchasing, and the machinery of control 
through pre-audit and post-audit.

GVPT 419 Seminar in Public Policy (3) Prerequisite: GVPT170 and GVPT241. Recommended: GVPT270. 
For GVPT majors only. Repeatable to 6 credits if content differs. Reading, writing, and research on topics in 
public policy. Both substantive issues and methodological approaches will be considered.

GVPT 422 Quantitative Political Analysis (3) Prerequisite: GVPT170 and GVPT241. Recommended: 
GVPT220. For GVPT majors only. Introduction to quantitative methods of data analysis, including selected 
statistical methods, block analysis, content analysis, and scale construction.

GVPT 423 Elections and Electoral Behavior (3) Prerequisite: GVPT170 and GVPT241. For GVPT majors 
only. An examination of various topics relating to elections; the focus includes the legal structure under which 
elections are conducted, the selection and nomination process, the conduct of election campaigns, and 
patterns of political participation and voting choice in different types of elections.

GVPT 424 Topics in Formal Theories of Political Behavior and Politics (3) Prerequisite: GVPT221 and 
GVPT241. For GVPT majors only. The focus of this course will vary both by its theoretical core and its 
applications. The theories are likely to be those of games, social choice, and voting. The applications will 
usually be to problems of distributive and social justice, community organizing, responsive public policy, 
institutional design, alliance and coalition formation, etc. Some of the topics will involve research projects.

GVPT 426 Public Opinion (3) Prerequisite: GVPT170 and GVPT241. Recommended: GVPT220. Junior 
standing. For GVPT majors only. An examination of public opinion and its effect on political action, with 
emphasis on opinion formation and measurement, propaganda and pressure groups.

GVPT 427 Political Sociology (3) Prerequisite: GVPT170 and GVPT241. Recommended: GVPT220. For 
GVPT majors only. A study of the societal aspects of political life including selected aspects of the sociology of 
group formation and group dynamics, political association, community integration and political behavior.

GVPT 428 Topics in Formal Theories of Political Behavior and Politics (3) Prerequisite: GVPT221 and 
GVPT241. For GVPT majors only. Repeatable to 6 credits if content differs. An evaluation of theories of 
political behavior such as game, social choice and voting theory, and their applications to problems of 
distribution and social justice, community organizing, responsive public policy, institutional design, and 
alliance and coalition formation.

GVPT 429 Problems in Political Behavior (3) Prerequisite: GVPT241. Recommended: GVPT220. For GVPT 
majors only. The problem approach to political behavior with emphasis on theoretical and empirical studies 
on selected aspects of the political process.

GVPT 431 Introduction to Constitutional Law (3) Prerequisite: GVPT170 and GVPT241. Junior standing. 
For GVPT majors only. A systematic inquiry into the general principles of the American constitutional system, 
with special reference to the role of the judiciary in the interpretation and enforcement of the federal 
constitution.

GVPT 432 Civil Rights and the Constitution (3) Prerequisite: GVPT241 and GVPT331. For GVPT majors 
only. A study of civil rights in the American constitutional context, emphasizing freedom of religion, freedom 
of expression, minority discrimination, and the rights of defendants.

GVPT 433 The Judicial Process (3) Prerequisite: GVPT241 and GVPT331. For GVPT majors only. An 
examination of judicial organization in the United States at all levels of government, with some emphasis on 
legal reasoning, legal research and court procedures.

GVPT 434 Race Relations and Public Law (3) Prerequisite: GVPT241 and GVPT331. For GVPT majors 
only. A political and legal examination of the constitutionally protected rights affecting racial minorities and of 
the constitutional power of the federal courts, congress, and the executive to define, protect and extend 
these rights.

GVPT 436 The Legal Status of Women (3) Prerequisite: GVPT241 and GVPT331. For GVPT majors only. 
Also offered as WMST436. Credit will be granted for only one of the following: GVPT436 or WMST436. An 
examination of judicial interpretation and application of common, statutory, and constitutional law as these 
affect the status of women in American society.

GVPT 439 Seminar in Public Law (3) Prerequisite: GVPT170 and GVPT241. Recommended: GVPT331. 
Junior standing. For GVPT majors only. Repeatable to 6 credits if content differs. Reading, writing, and 
research on topics in public law. Both substantive issues and methodological approaches will be considered.

GVPT 441 History of Political Theory: Ancient and Medieval (3) Prerequisite: GVPT241. Junior 
standing. For GVPT majors only. A survey of the principal political theories set forth in the works of writers 
before Machiavelli.
GVPT 442 History of Political Theory--Medieval to Recent (3) Prerequisite: GVPT241. For GVPT majors only. A survey of the principal theories set forth in the works of writers from Machiavelli to Nietzsche.

GVPT 443 Contemporary Political Theory (3) Prerequisite: GVPT241. For GVPT majors only. A survey of the principal political theories and ideologies set forth in the works of writers from Karl Marx to the present.

GVPT 444 American Political Theory (3) Prerequisite: GVPT170 and GVPT241. For GVPT majors only. A study of the development and growth of American political concepts from the Colonial period to the present.

GVPT 445 Marxism and Postmarxism (3) Prerequisite: GVPT100. The study of Marxist thought and an assessment of the critical transformations and reassessments of the theory and practice of Marxism.

GVPT 446 Psychoanalysis and Politics (3) Prerequisite: GVPT241. For GVPT majors only. Psychological sources of individual and group behavior as applied to political phenomenon such as voting, war, revolution, and genocide.

GVPT 447 Islamic Political Philosophy (3) The writings of one or several authors from the rise of Islamic philosophy until today are examined in order to see how they understand the conflicting claims of revelations and unaided human reason about the best regime, justice, and human virtue.

GVPT 448 Non-Western Political Thought (3) Prerequisite: GVPT241; permission of department required for repeat. For GVPT majors only. Examination of works by major authors and general themes of political thought originating in Asia, the Middle East, and Africa. This is not a survey of all non-Western political thought, but a course to be limited by the professor with each offering.

GVPT 449 Seminar in Political Philosophy (3) Prerequisite: GVPT241. For GVPT majors only. Repeatable to 6 credits if content differs. Reading, writing, and research on topics in political philosophy. Both substantive issues and methodological approaches will be considered.

GVPT 450 Comparative Study of Foreign Policy Formation (3) Prerequisite: GVPT200. For GVPT majors only. The opportunity to learn the theoretical underpinnings of foreign policy decision-making and to apply this knowledge in a simulation of a "real world" negotiation.

GVPT 453 Recent East Asian Politics (3) Prerequisite: GVPT200. For GVPT majors only. The background and interpretation of recent political events in East Asian and their influence on world politics.

GVPT 454 Seminar in the International Relations of China (3) Prerequisite: GVPT200. Junior standing. For GVPT majors only. Credit will be granted for only one of the following: GVPT409D or GVPT454. Formerly GVPT 409D. Explores the foreign relations behavior of the People's Republic of China, with focus on the contemporary era.

GVPT 455 Contemporary Middle Eastern Politics (3) Prerequisite: GVPT200; and GVPT280 or GVPT282. For GVPT majors only. A survey of contemporary development in the international politics of the Middle East nations in the world affairs.

GVPT 457 American Foreign Relations (3) Prerequisite: GVPT200. Junior standing. For GVPT majors only. The principles and machinery of the conduct of American foreign relations, with emphasis on the Departments of State and Defense, and an analysis of the major foreign policies of the United States.

GVPT 459 Seminar in Comparative Politics (3) Prerequisite: GVPT200; and GVPT280 or GVPT282. For GVPT majors only. Repeatable to 6 credits if content differs. Reading, writing, and research on topics in comparative politics. Both substantive issues and methodological approaches will be considered.

GVPT 460 Problems in State and Local Government (3) Prerequisite: GVPT170 and GVPT241. Recommended: GVPT260. For GVPT majors only. A study of the structure, procedures and policies of state and local governments with special emphasis on the state level and on intergovernmental relationships, and with illustrations from Maryland governmental arrangements.

GVPT 461 Metropolitan Government (3) Prerequisite: GVPT170 and GVPT241. For GVPT majors only. An examination of administrative problems relating to public services, planning and coordination in a metropolitan environment.

GVPT 462 Urban Politics (3) Prerequisite: GVPT170 and GVPT241. Recommended: GVPT260. Urban political process and institutions considered in the light of changing social and economic conditions.

GVPT 473 Legislatures and Legislation (3) Prerequisite: GVPT170 and GVPT241. Junior standing. For GVPT majors only. A detailed survey of lawmaking and the legislative process, emphasizing the U.S. Congress and its members.
GVPT 474 Political Parties (3) Prerequisite: GVPT170 and GVPT241. For GVPT majors only. A descriptive and analytical examination of American political parties, nominations, elections, and political leadership.

GVPT 475 The Presidency and the Executive Branch (3) Prerequisite: GVPT170 and GVPT241. Junior standing. For GVPT majors only. An examination of the U.S. presidency in historical and contemporary perspective; nomination and electoral politics and the president's place in policy-making, administration, and public opinion.

GVPT 476 The Business Government Relationship (3) Prerequisite: GVPT170 and GVPT241. Recommended: GVPT270. For GVPT majors only. Examines the structures, process, and outcomes of business and government and the politics and products of their cooperative-adversarial relationships in the United States. The design integrates interest group and administrative politics and the public policy process.

GVPT 479 Seminar in American Politics (3) Prerequisite: GVPT170 and GVPT241. Junior standing. For GVPT majors only. Repeatable to 6 credits if content differs. Reading, writing, and research on topics in American politics. Both substantive issues and methodological approaches will be considered.

GVPT 480 Comparative Political Systems (3) Prerequisite: GVPT200; and GVPT280 or GVPT282. For GVPT majors only. A study, along functional lines, of major political institutions, such as legislatures, executives, courts, bureaucracies, public organizations, and political parties.

GVPT 481 Government and Administration of Russia and the States of the Former Soviet Union (3) Prerequisite: GVPT200; and GVPT280 or GVPT282. For GVPT majors only. A comparative study of the governmental systems and political processes of the states of the former Soviet Union.

GVPT 482 Government and Politics of Latin America (3) Prerequisite: GVPT200; and GVPT280 or GVPT282. For GVPT majors only. A comparative study of the governmental systems and political processes of the Latin American countries.

GVPT 483 Government and Politics of Asia (3) Prerequisite: GVPT200; and GVPT280 or GVPT282. For GVPT majors only. A comparative study of governments and politics of Asian countries.

GVPT 484 Government and Politics of Africa (3) Prerequisite: GVPT280 or GVPT282. A comparative study of the governmental systems and political processes of the African countries, with special emphasis on the problems of nation-building in emergent countries.

GVPT 485 Government and Politics of the Middle East (3) Prerequisite: GVPT200; and GVPT280 or GVPT282. For GVPT majors only. A comparative study of the governmental systems and political processes of the African countries, with special emphasis on the problems of nation-building in emergent countries.

GVPT 486 Comparative Studies in European Politics (3) Prerequisite: GVPT200; and GVPT280 or GVPT282. For GVPT majors only. A comparative study of the governmental systems and political processes of the Middle Eastern countries, with special emphasis on the problems of nation-building in emergent countries.

GVPT 487 Government and Politics of China (3) Prerequisite: GVPT200. Recommended: GVPT280 or GVPT282. Junior standing. For GVPT majors only. Credit will be granted for only one of the following: GVPT359A or GVPT487. Formerly GVPT 399A. Discussion of major issues in the study of the domestic politics of the People's Republic of China.

GVPT 492 The Comparative Politics of Race Relations (3) Prerequisite: GVPT200. Recommended: GVPT280 or GVPT282. For GVPT majors only. Impact of government and politics on race relations in various parts of the world. The origins, problems, and manifestations of such racial policies as segregation, apartheid, integration, assimilation, partnership, and nonracialism will be analyzed.

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Use the search box below to view the approved courses.

Select Program: HEBR - Hebrew

Course Number: Search

Courses in "HEBR-Hebrew"

HEBR - Hebrew

HEBR 111 Elementary Hebrew I (6) Six hours of discussion/recitation per week. Modern Israeli Hebrew. Emphasis on conversation. Study of linguistic structure and development of audio-lingual, writing and reading ability.

HEBR 112 Elementary Hebrew II (6) Six hours of discussion/recitation per week. Prerequisite: HEBR111 or equivalent. Continuation of HEBR 111.

HEBR 211 Intermediate Hebrew I (6) Six hours of discussion/recitation per week. Prerequisite: HEBR112 or equivalent. Study of linguistic structure, further development of audio-lingual, reading, writing, and
speaking skills. Reading of texts and newspapers designed to give some knowledge of Hebrew life, thought and culture.

**HEBR 212 Intermediate Hebrew II (6)** Six hours of discussion/recitation per week. Prerequisite: HEBR211 or permission of department. Continuation of HEBR211.

**HEBR 298 Special Topics in Jewish Studies (3)** Repeatable to 6 credits if content differs.

**HEBR 313 Conversation and Composition I (3)** Prerequisite: HEBR212 or equivalent. A practical language course recommended for all students continuing with Hebrew. Review of grammar and composition. Selected readings. Oral and written exercises.

**HEBR 314 Conversation and Composition II (3)** Prerequisite: HEBR313 or equivalent. A practical language course recommended for all students continuing with Hebrew. Review of grammar and composition. Selected readings. Oral and written exercises.

**HEBR 381 Advanced Conversation and Composition (3)** Prerequisite: HEBR314 or permission of department. Concentrated practice in spoken and written Hebrew.

**HEBR 382 Readings in Hebrew Newspapers and Periodicals (3)** Prerequisite: HEBR314 or permission of department. Current events, editorials, theatrical reports, book reviews, and scholarly articles. Conducted in Hebrew.

**HEBR 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**HEBR 388 Language House Colloquium (1)** Prerequisite: Residence in Language House. Repeatable to 8 credits. For students residing in the Language House Immersion Program. Focuses on the development of skills in the target language and acquiring the cultural knowledge of the countries that speak the target language.

**HEBR 498 Special Topics in Hebrew (3)** Repeatable to 6 credits if content differs.

**HEBR 499 Independent Study in Hebrew (1-3)** Prerequisite: permission of instructor. Repeatable to 6 credits if content differs. Independent study under faculty supervision.

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Select Program: HESP - Hearing and Speech Sciences

Course Number:

Search

Courses in “HESP-Hearing and Speech Sciences”

HESP - Hearing and Speech Sciences

**HESP 120 Introduction to Linguistics (3)** An introduction to the scientific study of natural language with focus on the basic concepts of phonology, syntax, semantics and pragmatics, with subsequent attention to the applied aspects of linguistic principles.

**HESP 202 Introduction to Hearing and Speech Sciences (3)** An introduction to communication sciences and disorders; a survey of the bases of normal speech, language and hearing ability, major forms of communicative disorder and their treatment.

**HESP 300 Introduction to Psycholinguistics (3)** Prerequisite: HESP202 with a grade of "C" or better, or
permission of department. Recommended: HESP120 or LING200. An introduction to current theories of language and an investigation of their relationship to human communication behavior. Survey of the experimental literature relating to this question.

**HESP 305 Anatomy and Physiology of the Speech Mechanism (3)** Prerequisite: HESP202 with a grade of "C" or better, or permission of department. Anatomy, physiology, and neurology of speech mechanism.

**HESP 311 Anatomy, Pathology and Physiology of the Auditory System (3)** Prerequisite: HESP202 with a grade of 'C' or better, or permission of department. Gross anatomy of the ear and pathways for transmission of sound energy through the peripheral and central auditory system. Causes, development and effects of pathological conditions contributing to temporary or chronic hearing impairments.

**HESP 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.

**HESP 388 Undergraduate Research Externship (1-3)** Prerequisite: HESP202, HESP305, HESP300, HESP311 and permission of department. Sophomore standing. Off-campus research internship with departmental affiliates at National Institutes of Health and regional universities. Contact department chairman for openings and descriptions of eligible placements.

**HESP 400 Speech and Language Development in Children (3)** Prerequisite: HESP300 with a grade of "C" or better, or permission of department. Analysis of the normal processes of speech and language development in children.

**HESP 402 Speech Pathology I (3)** Prerequisite: HESP400 with a grade of "C" or better, or permission of department. Etiology, assessment and treatment of language and phonological disorders in children.

**HESP 403 Introduction to Phonetic Science (3)** Prerequisite: HESP305 with a grade of "C" or better, or permission of department. An introduction to physiological, acoustic and perceptual phonetics; broad and narrow phonetic transcription; current models of speech production and perception.

**HESP 404 Speech Pathology II (3)** Prerequisite: permission of department. Etiology, assessment and therapeutic management of phonation, resonance, and fluency disorders in children and adults.

**HESP 406 Speech Pathology III (3)** Prerequisites: (HESP300 and HESP305) with a grade of "C" or better or permission of department. Survey of the dysarthrias and aphasias in adults from an interdisciplinary point of view.

**HESP 407 Bases of Hearing Science (3)** Prerequisite: HESP311 with a grade of 'C' or better or permission of department. Fundamentals of hearing, including the physics of sound, anatomy and physiology of peripheral and central auditory nervous system, psychophysical procedures used in measurement of auditory sensation and perception, and topics in psychological acoustics.

**HESP 411 Introduction to Audiology (3)** Prerequisite: HESP311 with a grade of 'C' or better, or permission of department. An introduction to the field of audiology. Evaluation and remediation of hearing handicaps.

**HESP 417 Principles and Methods in Speech–Language Pathology and Audiology (3)** Prerequisites: (HESP311, HESP402, and HESP411) with a grade of "C" or better, or permission of department. The principles underlying the treatment of speech, language and hearing disorders in children and adults.

**HESP 418 Clinical Practice in Speech–Language Pathology and Audiology (3)** Prerequisite: HESP417 with a grade of 'C' or better, and permission of department. Repeatable to 6 credits. Supervised observation with some direct participation in clinical methods for the treatment of disorders of articulation, fluency, child and adult language; evaluation and habilitation/rehabilitation of hearing impaired children and adults.

**HESP 420 Deafness and Sign Language (3)** Credit will be granted for only one of the following: HESP498A or HESP420. An introduction to American Sign Language and Deaf Culture.

**HESP 422 Neurological Bases of Human Communication (3)** Prerequisite: HESP305 or permission of instructor. Credit will be granted for only one of the following: HESP498 or HESP422. Basic neurology as it pertains to anatomy and physiology substrates of speech and language.

**HESP 423 Phonetics for Teachers of English as a Second Language (3)** Credit will be granted for only one of the following: HESP498F or HESP423. An introduction to the phonetic and phonological system of standard North American English, materials and techniques in teaching pronunciation for teachers of English as a second language.

**HESP 469 Honor Thesis Research (1-3)** Prerequisite: Honor thesis advisor's approval. Repeatable to 6 credits if content differs. Student will develop thesis proposal, conduct research, analyse results, develop and
defend final written document.

**HESP 498 Seminar (3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs. Selected topics in human communication and its disorders.

**HESP 499 Independent Study (1-3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs. A directed study of selected topics pertaining to human communication and its disorders.

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Select Program: HISP - Historic Preservation

Course Number:  

Search

Courses in "HISP-Historic Preservation"

HISP - Historic Preservation

HISP 200 The Everyday and the American Environment (3) One hour of lecture and two hours of discussion/recitation per week. An introduction to the theories of the everyday within the context of the American built environment. Focuses primarily on the American experience of underrepresented, minority, and/or immigrant communities; both historical and contemporary. Attempts to challenge what is meant by American in describing the American everyday built environment.

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Select Program: HIST - History

Course Number:  

Courses in “HIST-History”

HIST - History

HIST 106 American Jewish Experience (3) Also offered as JWST141. Credit will be granted for only one of the following: HIST106 or JWST141. History of the Jews in America from colonial times to the present. Emphasis on the waves of migration from Germany and Eastern Europe; the changing nature of the American Jewish community and its participation in American social, economic and political life.

HIST 110 The Ancient World (3) Interpretation of select literature and art of the ancient Mediterranean world with a view to illuminating the antecedents of modern culture; religion and myth in the ancient near East; Greek philosophical, scientific, and literary invention; and the Roman tradition in politics and administration.
HIST 111 The Medieval World (3) The development of Europe in the Middle Ages; the role of religious values in shaping new social, economic, and political institutions; medieval literature, art and architecture.


HIST 113 Modern Europe: 1789 - Present (3) Evolution of modern nation states. Industrial-economic structure and demography. Emergence of modern secular society.

HIST 120 Islamic Civilization (3) Introduction to society and culture in the Middle East since the advent of Islam: as a personal and communal faith; as artistic and literary highlights of intellectual and cultural life; and as the interplay between politics and religion under the major Islamic regimes.


HIST 123 Sub-Saharan Africa Since 1800 (3) Overviews early mid-19th-century changes in African societies, European conquest and African resistances in the late 19th-century, colonial states and societies, African nationalisms and decolonization and the independence era. Struggles over social, economic, and political changes are emphasized.

HIST 126 Jewish Civilization (3) Also offered as JWST121. Credit will be granted for only one of the following: HIST126 or JWST121. Formerly HIST 105. Jewish history, culture, and society from Biblical times to the present.

HIST 156 History of the United States to 1865 (3) The United States from colonial times to the end of the Civil War. Establishment and development of American institutions.

HIST 157 History of the United States Since 1865 (3) The United States from the end of the Civil War to the present. Economic, social, intellectual, and political developments. Rise of industry and emergence of the United States as a world power.

HIST 174 Introduction to the History of Science (3) Formerly HIST 200. Major issues in the development of modern science. Specific examples of discoveries and theories from the viewpoint of theories of historical change, philosophies of science, and interaction of science with philosophy.

HIST 175 Science and Technology in Western Civilization (3) Key periods of change in science and technology; the causes and effects of these changes beginning with prehistory and ending with the current century.

HIST 208 Historical Research and Methods Seminar (3) For HIST majors only. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: HIST208 or HIST220. Formerly HIST 220. Reading and research skills and methods. Research papers will be based on the topic of the seminar.

HIST 209 Selected Topics (3)

HIST 210 Women in America to 1880 (3) Also offered as WMST210. Credit will be granted for only one of the following: HIST210 or WMST210. An examination of the economic, family and political roles of colonial, slave, immigrant and frontier women in America from pre-industrial colonial period through the early stages of the 19th-century industrialization and urbanization.

HIST 211 Women in America Since 1880 (3) Also offered as WMST211. Credit will be granted for only one of the following: HIST211 or WMST211. An examination of women's changing roles in working class and middle class families, the effects of industrialization on women's economic activities and status, and women's involvement in political and social struggles including those for women's rights, birth control, and civil rights.

HIST 212 Women in Western Europe, 1750-Present (3) Also offered as WMST212. Credit will be granted for only one of the following: HIST212 or WMST212. An analysis of the economic, family, and political roles of European women from 1750 to the present. The effects of industrialization on women's work and status, the demographic parameters of women's lives, and women's participation in political events from market riots to suffrage struggles.

HIST 213 History of Sexuality in America (3) Two hours of lecture and one hour of discussion/recitation per week. Credit will be granted for only one of the following: HIST213 or HIST2190. Formerly HIST 2190. Explores the social construction of sexualities from the first colonial settlement to the modern era in the United States. Analyzes the implications of these understandings for power relations in U.S History.
HIST 216 Introduction to the Study of World Religions (3) Survey of the history and development of major religions as a significant aspect of social and cultural history. Discusses major scholarly approaches to the study of religion.

HIST 219 Special Topics in History (3)

HIST 222 Immigration and Ethnicity in America (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as AAST222. Credit will be granted for only one of the following: AAST222; AAST298A, HIST219L or HIST222. Formerly HIST 219L. The history of immigration and the development of diverse populations in the United States are examined. Topics include related political controversies, the social experiences of immigrants, ethnicity, generations, migration, inter-group relations, race and diversity in America culture.

HIST 224 Modern Military History, 1494-1815 (3) Survey of the military history of Europe through an examination of the economic, financial, strategic, tactical, and technological aspects of the development of military institutions and warfare from the dynastic wars of the Valois and Habsburgs to the national wars of the French Revolution and Empire.

HIST 225 Modern Military History, 1815-Present (3) The military history of Europe through an examination of the economic, financial, strategic, tactical, and technological aspects of the development of military institutions and warfare from the Congress of Vienna in 1815 to the present.

HIST 232 The Historical Development of London (3) Prerequisite: By permission of Study Abroad Office only. Not open to students who have completed GNED288. Credit will be granted for only one of the following: GNED288 and HIST232. Formerly GNED 288. Study Abroad in London, England. The history of London, beginning with its foundation by the Romans, continuing with the city's progressive political and cultural domination of England, the British Isles and the British Empire, and concluding with a look at the city in the 20th Century. Students look at London through the eyes of contemporaries and historians while forming their own impressions of the city during course-based walking tours of the city.

HIST 233 Empire! The British Imperial Experience 1558-1997 (3) Two hours of lecture and one hour of discussion/recitation per week. Credit will be granted for only one of the following: HIST219P or HIST233. Formerly HIST 219P. Britain’s empire from the mid-sixteenth century to the late twentieth century, focusing on the encounter between Britain and indigenous peoples. Topics include the origins of British imperialism in Ireland and North America, the slave trade, the East India Company and India, women in Empire, transportation and the making of Australia, sex in empire, missionaries, racial theories and decolonization.

HIST 234 History of Britain to 1485 (3) British history from Roman times to the 15th century. The Anglo-Saxon, Scandinavian and Norman invasions; the coming of Christianity; Magna Carta, the development of Parliament, legal institutions and the Common Law; the decline of medieval kingship.

HIST 235 History of Britain 1461 to 1714 (3) British history from the War of the Roses to the Hanoverian succession; Yorkist and Tudor society and politics; the Renaissance and Reformation in England, Henry VIII through Elizabeth I; 17th-century crises and revolutions; intellectual and cultural changes; the beginnings of empire; the achievement of political and intellectual order.

HIST 236 History of Britain 1688 to Present (3) British history from the Glorious Revolution of 1688 to the present. The revolution of 1688; the structure of 18th-century society and politics; economic and social change in the Industrial Revolution; 19th and 20th-century political and social reform; imperialism; the impact of the First and Second World Wars on British society.

HIST 237 Russian Civilization (3) An overview of Russian history stressing the main lines of development of the Russian state and the evolution of Russian culture to the present day.

HIST 240 Europe in the Twentieth Century (3) Not open to students who have completed HIST337. Credit will be granted for only one of the following: HIST240 or HIST337. Formerly HIST 337. Political, cultural and economic developments in 20th-century Europe.

HIST 250 Latin American History I (3) Latin America from pre-Columbian Indian cultures to the beginnings of the wars for independence (ca. 1810), covering cultural, political, social, and economic developments.

HIST 251 Latin American History II (3) The political culture of the republics of Latin America. Themes include nation building, modernization, race relations, economic development, gender, reform and revolution, and relations between the United States and Latin America.

HIST 254 African-American History to 1865 (3) Survey of the principal developments in the history and culture of the peoples of African descent in colonial North America and the United States to 1865. Examines the African past, the Atlantic slave trade, variation in slavery, the growth of free black communities, the transformations of families and cultural forms, and patterns of resistance.
HIST 255 African-American History, 1865 - Present (3) An introductory course in the African-American experience in the United States from 1865 to present. Topics include the aftermath of the Civil War on US race relations, the rise of segregation, northern migration, World War I and II, Civil Rights Movements, and the Black Power Movement.

HIST 257 The American West in History and Imagination (3) Examines the American West from two perspective -- as a place of lived experience and as an idea for which much of the United States' national vision has evolved. Emphasizes the experiences of Native American and colonizing Euro-American peoples in regional context, and the interplay between historical realities and national mythologies.

HIST 265 Social and Cultural History of Modern America (3) American social history from the Civil War to the present. Examination of the social interactions accompanying the rise of male-dominated, business-oriented urban culture. Concentration on the major social forces clashing and cooperating to produce the modern United States: "business republicanism"; urban workers; intellectuals; immigrants (especially Jewish); Black Americans; and struggling women liberators. The crosscurrents of a "free society" wrestling with contradictions of the democratic experiment.

HIST 266 The United States in World Affairs (3) A study of the United States as an emerging world power and the American response to changing status in world affairs. Emphasis on the relationship between internal and external development of the nation.

HIST 275 Law and Constitutionalism in American History (3) An exploration of the relationship between law and the social and political order between 1750 and 1950. Discussion of important historical issues—religious liberty, economic development, slavery and the Civil War, the political economy of industrialization, the creation of the modern state—from a legal and constitutional perspective.

HIST 280 Reconstructing the Civilization of Ancient Mesopotamia (3) Also offered as JWST227. Not open to students who have completed HEBR440. Credit will be granted for only one of the following: HIST280 or JWST227. Formerly HEBR 440. History and culture of Ancient Mesopotamia, as reconstructed from archaeology, language, and texts of the region. Emphasis on culture, literature, religion, and institutions.

HIST 281 The Rabbinic Movement: History and Culture (3) Also offered as JWST230. Credit will be granted for only one of the following: HIST281 or JWST230. Introduction to the Rabbinic movement and its history, first to seventh century CE. Survey of the essential texts of ancient Rabbinic literature, both halakhic (legal) and aggadic (non-legal).

HIST 282 History of the Jewish People I (3) Also offered as JWST234. Credit will be granted for only one of the following: HIST282 or JWST234. Political, economic, social and cultural development within Jewish history from the Biblical period to the late Middle Ages. Special attention to the emergence of Rabbinic Judaism and its subsequent encounter with medieval Christian and Islamic civilizations.

HIST 283 History of the Jewish People II (3) Also offered as JWST235. Credit will be granted for only one of the following: HIST283 or JWST235. Political, economic, social and cultural development within Jewish history from the end of Middle Ages to the present. Special attention to twentieth century developments including the Nazi holocaust and its aftermath, the Zionist movement and the creation of the State of Israel; rise of the contemporary American Jewish community.

HIST 284 East Asian Civilization I (3) An interdisciplinary survey of the development of East Asian cultures. An historical approach drawing on all facets of East Asian traditional life, to gain an appreciation of the different and complex cultures of the area.

HIST 285 East Asian Civilization II (3) A survey of the historical development of modern Asia since 1700. Primarily concerned with the efforts of East Asians to preserve their traditional cultures in the face of Western expansion in the 18th and 19th centuries, and their attempts to survive as nations in the 20th century.

HIST 286 The Jew and the City through the Centuries (3) Also offered as JWST275. Credit will be granted for only one of the following: HIST286 or JWST275. Jewish urban experience from ancient times to the present. Public space and private space. The city and the sacred. Jewish ghettos and quarters. The struggle over modern Jerusalem.

HIST 299 Directed Research (1-3) Prerequisite: permission of department. Repeatable to 9 credits if content differs. Closely guided research in primary sources for students currently enrolled in selected 100- or 200-level survey in the Department of History.

HIST 305 The Eastern Orthodox Church: Its Cultural History (3) A study of the development of the Christian church in the Near East and Eastern Europe from the conversion of Constantine to the present. Emphasis on the relations between church and state in various periods and on the influence of Eastern Christianity on the cultures of traditionally Eastern Orthodox nations.

HIST 306 History of Religion in America (3) A history of religion, religious movements, and churches in America from the early Colonial period to the present, with special attention to the relation between church
and society.

**HIST 307 The Holocaust of European Jewry (3)** Also offered as JWST345. Credit will be granted for only one of the following: HIST307 or JWST345. Roots of Nazi Jewish policy in the 1930's and during World War II; the process of destruction and the implementation of the "final solution of the Jewish problem" in Europe, and the responses made by the Jews to their concentration and annihilation.

**HIST 309 Proseminar in Historical Writing (3)** For HIST majors only. Discussions and research papers designed to acquaint the student with the methods and problems of research and presentation. Students will be encouraged to examine those phases of history which they regard as their specialties. Restricted to history majors. Non-majors admitted by permission of the department on a space-available basis.

**HIST 312 Crisis and Change in the United States (3)** Prerequisite: one course in history. Major historical crises, controversies, and readjustments in the United States.

**HIST 314 Crisis and Change in the Middle East and Africa (3)** Prerequisite: one course in history. Major historical crises, controversies, and readjustments in the Middle East and Africa.

**HIST 319 Special Topics in History (3)** Repeatable to 6 credits if content differs.

**HIST 320 Early Christianity: Jesus to Constantine (3)** Prerequisite: one course in ancient history at the 200 level. Also offered as JWST331. Credit will be granted for only one of the following: HIST320 or JWST331. Social and religious history of early Christianity from its origins in the first century to the reign of Constantine.

**HIST 321 Biblical History and Culture (3)** Also offered as JWST324. Not open to students who have completed HEBR333. Credit will be granted for only one of the following: HIST321 or JWST324. Formerly HEBR 333. Study of the political, social and religious development of the Jewish nation from its inception to its return from exile in Babylonia around 536 C.E. Focus on biblical texts, archaeological finds, and source materials from neighboring cultures to reconstruct political history and the development of religious concepts.

**HIST 324 Classical Greece (3)** The ancient Greeks from Homer to Socrates, 800-400 B.C. Society and religion of the city-state, the art and literature of Periclean Athens, the Peloponnesian War, and the intellectual circle of Socrates.

**HIST 325 Alexander the Great and the Hellenistic Age (3)** History of the Greeks 400-30 B.C.: Alexander and the changes he wrought in the Mediterranean world; the rise of monarchies and leagues; new directions in religion, art, literature, and science; and Hellenization of the Near East, including the Jews.

**HIST 326 The Roman Republic (3)** Ancient Rome 753-44 B.C., from its founding to the assassination of Julius Caesar. Rome's conquest of the Mediterranean world, the social and political forces which brought it about, and the consequent transformation and decline of the republic.

**HIST 327 The Roman Empire (3)** Roman history from Augustus to Heraclius, 44BC-641AD: The Imperial court and government; the diversity of culture in provinces and cities and the progress of Romanization; Roman religion and its transformation in late antiquity; the Roman army and defense of the frontiers.

**HIST 330 Europe in the Making: The Early Medieval West (A.D. 300-1000) (3)** From one empire to another: Rome to Charlemagne. This period is approached as a crucible in which classical, Christian, and Germanic elements merged, yielding new experimental syntheses. This course will deal with issues of authority, cultural trends, and the formation of group solidarity.

**HIST 331 Europe in the High Middle Ages: 1000-1250 (3)** Medieval civilization in the 11th through 13th centuries. Emphasis on cultural and political developments of the high Middle Ages with study of the principal sources of medieval thought and learning, art and architecture and political theory. Recommended as a sequel to HIST330.

**HIST 332 Europe During the Renaissance and Reformation I (3)** Continental Europe from 1450 to 1650: development and spread of Renaissance culture; growth in the powers of central government; economic expansion and beginnings of overseas colonization; division of Western Christendom into two rival religious camps. Particular emphasis on the Protestant and Catholic reformations and their consequences for Europe's political, social, and cultural development. Renaissance and reformation, 1450-1555. The age of religious wars, 1555-1650.

**HIST 333 Europe During the Renaissance and Reformation II (3)** Continuation of HIST332.

**HIST 335 Society, Ideas and Culture in Europe, 1715-1815 (3)** Intellectual, social and cultural movements in Old Regime Europe, during the French Revolution, and in the Napoleonic Period.
HIST 336 Europe in the 19th Century, 1815-1919 (3) The political, economic, social, and cultural development of Europe from the Congress of Vienna to the First World War.

HIST 340 Nationalism and Communism in Eastern Europe (3) National states, ethnic conflict and communist parties across the 20th century, including the collapse of the Soviet bloc regimes and the break-up of Yugoslavia.

HIST 341 History of Anti-Semitism (3) The historical development of anti-Semitism in its European context. Anti-Semitism both as a set of ideas and as a political movement from the ancient era to the present, with emphasis on the modern era.

HIST 342 Fascism: Theory and Practice (3) The origins and history of fascism in Europe, 1918-1945. Emphasis divided between the industrialized (or industrializing) nations and the largely agrarian countries of Europe. The rise of fascism in other parts of the world.

HIST 344 Revolutionary Russia (3) An exploration of the roots, dynamics and consequences of the Russian Revolution of 1917. Major interpretations of the fall of tsarism, social and political forces at play, Leninism and Stalinism.

HIST 346 Social and Cultural History of Europe (3) An exploration of social structure, life styles, rituals, symbols, and myths of the peoples of Europe.

HIST 351 Social History of Washington, D.C. (3) Development of the "resident city" of Washington: neighborhoods, schools, places of worship, economic establishments, and local population groups.

HIST 352 America in the Colonial Era, 1600-1763 (3) The founding of the English colonies in America and their European backgrounds, the reasons for the instability of colonial society to 1689 and the emergence of stable societies after 1689; the development of colonial regionalism, political institutions, social divisions, the economy, religion, education, urban and frontier problems in the eighteenth century.

HIST 353 America in the Revolutionary Era, 1763-1815 (3) The background and course of the American Revolution and early nationhood through the War of 1812. Emphasis on how the Revolution shaped American political and social development, the creation of a new government under the Constitution, and the challenges facing the new nation.

HIST 354 Ante-Bellum America 1815-1861 (3) Recommended: HIST156 or HIST210. Traces how the strong nationalism after the War of 1812 transformed into the sectionalism that led to Civil War. The course concentrates on the controversies over slavery and other issues contributing to North-South antagonism, including Jacksonian democracy, capitalism, racism, immigration, manifest destiny and religious, social, and intellectual movements, each of which produced its own social tendencies and tensions.

HIST 355 Civil War and the Rise of Industrialization, 1860-1900 (3) Civil War, sectional and class conflicts and their impact on American life and institutions from the beginning of the Civil War through the Gilded Age; social, economic, and political reconstruction of the Union; industrialization, urbanization, and technological changes.

HIST 356 Emergence of Modern America, 1900-1945 (3) Recommended: HIST157 or HIST211. The emergence of modern institutions and identities, 1900-1945. These institutions may include corporate enterprises and the welfare state; identities include homosexuality, the New Woman and the New Negro.

HIST 357 Recent America: 1945-Present (3) Recommended: HIST157 or HIST356. American history from the inauguration of Harry S. Truman to the present with emphasis upon politics and foreign relations, but with consideration of special topics such as radicalism, conservatism, and labor.

HIST 370 Jews and Judaism in Antiquity I: Sixth Century BCE through the (3) First Century CE Also offered as JWST325. Credit will be granted for only one of the following: HIST370 or JWST325. Political, social, and religious history of the Jews from the Persian period to the Judaean revolt of 66-70 CE. Special attention to the rise of sectarian and revolutionary movements.

HIST 371 Jews and Judaism in Antiquity II: First through Seventh Century (3) Recommended: HIST370. Also offered as JWST326. Credit will be granted for only one of the following: HIST371 or JWST326. Political, social, and religious history of the Jews from the destruction of the Jerusalem Temple in 70 CE to the Muslim conquests. Special attention to the political transformation of Judaism under late Roman Christianity, and the rise of the Rabbinic movement.

HIST 377 Jews in Early Modern Times 1450-1750 (3) Recommended: HIST282/JWST234. Not open to students who have completed JWST333, HIST418C/JWST419C (Fall 2006, Fall 2004) or HIST419C/JWST419Y (Spring 2001). Credit will be granted for only one of the following: JWST333, HIST373, HIST418C/JWST419C (Fall 2006, Fall 2004) or HIST419C/JWST419Y (Spring 2001). Formerly HIST 419C. Emergence of new powerful population centers, religious and cultural creativity, new forms of community, and radical messianic
movements.

**HIST 374 Modern Jewish History I: The Road to Emancipation, 1650-1870 (3)** Also offered as JWST343. Credit will be granted for only one of the following: HIST374 or JWST343. Social, political, economic, and cultural change in the Jewish world since 1650. Emphasis on emancipation, assimilation, and new forms of Jewish identity in Western and Eastern European Jewry from the 17th to the 20th centuries.

**HIST 375 Modern Jewish History II: World Jewry Since 1870 (3)** Also offered as JWST344. Credit will be granted for only one of the following: HIST375 or JWST344. Continuation of HIST374.

**HIST 376 History of Zionism and the State of Israel (3)** Also offered as JWST342. Credit will be granted for only one of the following: HIST376 or JWST342. Ideological and political factors leading to the establishment of a secular Jewish state in 1948; Zionist thought of Herzl, Ahad Ha-am, the socialist and religious Zionists, and the revisionists; diplomatic activities; Arab-Israel conflict; post-1948 Israeli society.

**HIST 380 American Relations With China and Japan, 1740-Present (3)** American political, economic, and cultural relations with China and Japan from the American colonial era to the present. Diplomacy and power politics; Christian missions; immigration and exclusion; overseas education; art and literature; trade, investment, technology.

**HIST 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing. The History Department's Internship program. Pre-professional experience in historical research, analysis and writing in a variety of work settings.

**HIST 392 History of the Contemporary Middle East (3)** Modernization, westernization and secularization in a traditional society; the rise of sovereign nation-states; shifting political and economic power groupings within a regional and global context.

**HIST 395 Honors Colloquium I (3)** Prerequisite: permission of department. For HIST majors only. History and theory: the conceptual underpinnings of the historical discipline. Students evaluate several contrasting theories of history. Prerequisite for other honors courses.

**HIST 396 Honors Colloquium II (3)** Prerequisite: HIST395 or permission of department. For HIST majors only. Uses a seminar approach to examine a major problem of historical interpretation across two or more diverse cultures in different periods. Topics vary and include: religion and society, the city in history, gender, slavery and emancipation, and modernization.

**HIST 398 Honors Thesis (3)**

**HIST 401 The Origins of Modern Science from Aristotle to Newton (3)** Prerequisite: Any course that satisfies CORE Physical Sciences requirement. Introduction to the history of physical science, focusing on the transformation in our understanding of the world during the 16th and 17th centuries. Ancient and medieval conceptions of the universe, physical theories, and mathematical sciences in Europe, Asia, and Middle East, the transition from geocentric to heliocentric astronomy through the work of Copernicus, Kepler, and Galileo, interactions between science and religion as exemplified by the Trial of Galileo, new laws of mechanics, Newton's discoveries and theories, and the establishment of the Newtonian worldview.

**HIST 402 The Development of Modern Physical Science: From Newton to Einstein (3)** Prerequisites: MATH110; and PHYS112 or PHYS117 or equivalent. The history of physics in the 18th and 19th centuries, including connections with mathematics, technology, chemistry and planetary science. Emphasis on internal technical developments in physical theory, with discussion of experimental, philosophical and sociological aspects. This is the second part of a three-semester sequence (HIST401, HIST402, PHYS490); each part may be taken independently of the others.

**HIST 404 History of Modern Biology (3)** The internal development of biology in the 19th and 20th centuries, including evolution, cell theory, heredity and development, spontaneous generation, and mechanism-vitalism controversies. The philosophical aspects of the development of scientific knowledge and the interaction of biology with chemistry and physics.

**HIST 405 Environmental History (3)** An introduction to the key issues and methods of environmental history. The scope of the subject is discussed, as well as its relationship with other disciplines, such as ecology, anthropology, and geography. A primary focus is environmental change in history with emphasis on the American experience.

**HIST 406 History of Technology (3)** Not open to students who have completed HIST407 prior to Fall Semester, 1989. The changing character of technology in modern history, beginning with the Middle Ages. Concentrates on the Industrial Revolution and its aftermath, the nature of technological knowledge and the sources of technological change.

**HIST 407 Technology and Social Change in History (3)** Students with HIST407 prior to Fall Semester
1989 must have permission of department to enroll in this course. Social consequences of technological innovations and the ways in which societies have coped with new technologies.

**HIST 408 Senior Seminar (3)** For HIST majors only. Repeatable to 6 credits if content differs. A capstone course for history majors, designed to increase historical knowledge and the ability to analyze texts and arguments. Topics will focus on the literature of a particular field and primary-source research.

**HIST 410 Introduction to Archives I (3)** Prerequisite: permission of department. Corequisite: HIST411. History of the basic intellectual problems relating to archives and manuscript repositories; emphasis on problems of selection, access, preservation, inventorying and editing as well as the variety of institutions housing documents.

**HIST 411 Introduction to Archives II (3)** Prerequisite: permission of department. Corequisite: HIST410. Practical experience through placement in cooperating archives or manuscript repositories in the Baltimore/Annapolis/Washington, D.C. areas. Assignments to specific projects based on intellectual interest of students.

**HIST 414 History of European Ideas I (3)** Review of the basic Western intellectual traditions as a heritage from the ancient world. Selected important currents of thought from the scientific revolution of the 16th and 17th centuries to the end of the 18th century.

**HIST 415 History of European Ideas II (3)** A continuation of HIST414 emphasizing 19th and 20th-century thought.

**HIST 418 Jews and Judaism: Selected Historical Topics (3)** Repeatable to 6 credits if content differs.

**HIST 419 Special Topics in History (3)** Repeatable to 9 credits if content differs.

**HIST 422 Byzantine Empire I (3)** The Eastern Roman Empire from Constantine the Great to the crisis of the 9th-century. The development of the late Roman state into the Medieval Christian Byzantine Empire and the evolution of a distinctive Byzantine culture.

**HIST 423 Byzantine Empire II (3)** The Byzantine Empire from the Macedonian renaissance to the conquest of Constantinople by the Ottomans in 1453: the Byzantine Empire at its height, the Crusades, Byzantium as a minor power, and its contributions to the Renaissance and the cultures of Russia and the Balkans.

**HIST 424 Early Russia (3)** A study of the evolution of the East Slavic peoples from prehistory to the time of Peter the Great. Major segments are devoted to the Kievan Rus state, Mongol rule, Muscovite absolutism, the absorption of Ukraine, and the advent of Westernization.

**HIST 425 Imperial Russia (3)** The rise and fall of the Russian Empire, Peter the Great to the collapse of tsarism in revolution. Emphasis on the evolution of autocracy, social groups, national identities, and cultural change.

**HIST 426 Age of Industry: Britain 1760 to 1914 (3)** An economic, social, political and cultural analysis of Britain in the age of its industrial supremacy. The nature of the first industrial revolution; the emergence of modern social classes; the cultural impact of industrialization; politics and society in the early and mid-19th-century; Victorianism and its critics; imperialism and politics; high and low culture; the rise of labor; social and political tensions 1910-1914.

**HIST 427 Age of Decline: Britain 1914 to Present (3)** British society since the First World War. The social, cultural, economic and political impact of the First World War; labor and politics in the 1920s and 1930s; the inter-war Depression, appeasement and foreign policy; the social impact of the Second World War; the welfare state and nationalization of industry; the dissolution of Empire; the emergence of a consumer society; social criticism in the 1950s; the economic and political problems of the 1960s and 1970s.

**HIST 430 Tudor England (3)** An examination of the political, religious and social forces in English life, 1485-1603, with special emphasis on Tudor government, the English reformation and the Elizabethan era.

**HIST 431 Stuart England (3)** An examination of the political, religious and social forces in English life, 1603-1714, with special emphasis on Puritanism and the English revolutions.

**HIST 435 Constitutional and Legal History of Britain (3)** Not open to students who have completed HIST 434. Constitutional and legal developments in England from the Anglo-Saxon settlement to the present day. The rise and decline of monarchical government, the development of parliament, and the emergence of systematized, democratic government. The origins of the common law and legal profession, the development of a centralized judicial system, and the emergence of modern trial procedures. Survey knowledge of English history desirable.
HIST 436 French Revolution and Napoleon (3) The causes and course of the French Revolution with emphasis on the struggle among elites, popular intervention, the spread of counterrevolution, the Terror as repression and popular government, the near collapse of the Republic, and the establishment and defeat of dictatorship.

HIST 437 Modern France from Napoleon to DeGaulle (3) The changing political and cultural values of French society in response to recurrent crises throughout the 19th and 20th centuries. Students should have had some previous survey of either Western civilization or European history.

HIST 440 Germany in the Nineteenth Century, 1815-1914 (3) Examines the social, economic, cultural, and political development of the major German states before 1871 and of Germany, excluding Austria, from 1871 to 1914.

HIST 441 Germany in the Twentieth Century: 1914-Present (3) Germany's aims and policies during World War I, its condition and policies in the inter-war period, the rise of National Socialism, World War II, and post-war Germany.

HIST 442 Twentieth-Century Russia (3) Russia and the Soviet Union from the fall of the tsars to the post-communist present. Impact of Leninism, Stalinism and Soviet Communism on state, society, culture and nationality.

HIST 443 Modern Balkan History (3) A political, socioeconomic, and cultural history of Yugoslavia, Bulgaria, Romania, Greece, and Albania from the breakdown of Ottoman domination to the present. Emphasis is on movements for national liberation during the 19th-century and on approaches to modernization in the 20th-century.

HIST 445 Twentieth-Century European Diplomatic History (3) The development and execution of European diplomacy from the outbreak of World War I to the conclusion of World War II, concentrating on Central and Western Europe.

HIST 450 Economic History of the United States to 1865 (3) The development of the American economy from Columbus through the Civil War.

HIST 451 Economic History of the United States After 1865 (3) The evolution of the U.S. economy from the end of the Civil War to the present; emphasis on macroeconomic policy making and relations among business, government and organized labor.

HIST 452 Diplomatic History of the United States to 1914 (3) American foreign relations from the American Revolution to the beginning of World War I. International developments and domestic influences that contributed to American expansion in world affairs. Analyses of significant individuals active in American diplomacy and foreign policy.

HIST 453 Diplomatic History of the United States from 1914 (3) American foreign relations in the 20th-century. World War I, the Great Depression, World War II, the Cold War, the Korean War, and Vietnam. A continuation of HIST452.

HIST 454 Constitutional History of the United States: From Colonial Origins (3) to 1860 The interaction of government, law, and politics in the constitutional system. The nature and purpose of constitutions and constitutionalism; the relationship between the constitution and social forces and influences, the way in which constitutional principles, rules, ideas, and institutions affect events and are in turn affected by events. The origins of American politics and constitutionalism through the constitutional convention of 1787. Major constitutional problems such as the origins of judicial review, democratization of government, slavery in the territories and political system as a whole.

HIST 455 Constitutional History of the United States: Since 1860 (3) American public law and government, with emphasis on the interaction of government, law, and politics. Emphasis on the political-constitutional system as a whole, rather than simply the development of constitutional law by the Supreme Court. Major crises in American government and politics such as Civil War, Reconstruction, the 1890s, the New Deal era, the civil disorders of the 1960s.

HIST 456 History of American Culture and Ideas to 1865 (3) The culture and ideas that have shaped American society and character from the first settlements to the Civil War.

HIST 457 History of American Culture and Ideas Since 1865 (3) A continuation of HIST456, from the Civil War to the present.

HIST 460 History of Labor in the United States (3) The American working class in terms of its composition; its myths and utopias; its social conditions; and its impact on American institutions.
HIST 461 Blacks in American Life: 1865 to Present (3) The role of the Black in America since slavery, with emphasis on 20th-century developments: migration from farm to city; growth of the civil rights movement; the race question as a national problem.

HIST 462 The United States Civil War (3) Causes of the Civil War; sectional politics and secession; resources and strategy of the Confederacy and the Union; changing character of the war; emancipation and its consequences: economic, social and political conditions on the home front; and the wartime origins of Reconstruction. Not a military history course; little attention to the tactics of particular battles.

HIST 463 History of the Old South (3) The golden age of the Chesapeake, the institution of slavery, the frontier South, the antebellum plantation society, the development of regional identity and the experiment in independence.

HIST 464 The North Atlantic World in the Early Modern Period, 1600-1800 (3) Not open to students who have completed HIST260. The American Colonies and the new American nation: their European heritage and influences.

HIST 471 History of Brazil (3) The history of Brazil with emphasis on the national period.

HIST 472 History of the Argentine Republic (3) Concentration upon the recent history of Argentina with emphasis upon the social and economic development of a Third World nation.

HIST 473 History of the Caribbean (3) Offers a concise introduction to the history of the Caribbean regions from the Columbian voyages to the 20th-century. Special emphasis is given to the dynamics of local social and cultural formations within the framework of the political and economic history of the Atlantic world.

HIST 474 History of Mexico and Central America I (3) History of Mexico and Central America, beginning with the Pre-Spanish Indian cultures and continuing through European contact, conquest, and colonial dominance, down to the beginning of the Mexican War for Independence in 1810.

HIST 475 History of Mexico and Central America II (3) A continuation of HIST474 with emphasis on the political development of the Mexican nation.

HIST 480 History of Traditional China (3) China from earliest times to 1644 A.D. Emphasis on the development of traditional Chinese culture, society, and government.

HIST 481 A History of Modern China (3) Modern China from 1644 to the People's Republic of China. Emphasis on the coming of the West to China and the various stages of the Chinese reaction.

HIST 482 History of Japan to 1800 (3) Traditional Japanese civilization from the age of Shinto mythology and introduction of continental learning down to the rule of military families, the transition to a money economy, and the creation of a townsman's culture. A survey of political, economic, religious, and cultural history.

HIST 483 History of Japan Since 1800 (3) Japan's renewed contact with the Western world and emergence as a modern state, industrial society, and world power, 1800-1931; and Japan's road to war, occupation, and recovery, 1931 to the present.

HIST 484 Chinese Cultural Revolution (3) Recommended: HIST285 or HIST481. Credit will be granted for only one of the following: HIST419G or HIST484. Formerly HIST 419G. Examines the cultural origins, experience, and results of the Cultural Revolution in China.

HIST 487 History of Soviet Foreign Relations, 1917 to Present (3) A history of Soviet foreign relations, including both conventional diplomacy and the spread of international proletarianism from the October Revolution to the present.

HIST 491 History of the Ottoman Empire (3) Survey of the Ottoman Turkish Empire from 1300 A.D. to its collapse during World War I. Emphasis on the empire's social and political institutions and its expansion into Europe, the Arab East and North Africa.

HIST 492 Women and Society in the Middle East (3) Recommended: prior coursework in Middle East studies or gender studies. Also offered as WMST456. Credit will be granted for only one of the following: HIST492 or WMST456. Examines the customs, values and institutions that have shaped women's experience in the Middle East in the past and in the contemporary Middle East.

HIST 493 Victorian Women in England, France, and the United States (3) Also offered as WMST453. Credit will be granted for only one of the following: HIST493 or WMST453. Examines the lives of middle and upper-class women in England, France, and the United States during the Victorian era. Topics include gender roles, work, domesticity, marriage, sexuality, double standards, and women's rights.
HIST 494 Women in Africa (3) The place of women in African societies: the role and function of families; institutions such as marriage, birthing, and child-rearing; ritual markers in women's lives; women in the work place; women's associations; women's health issues; measures designed to control women's behavior; women and development.

HIST 495 Women in Medieval Culture and Society (3) Also offered as WMST455. Credit will be granted for only one of the following: HIST495 or WMST455. Medieval women's identity and cultural roles: the condition, rank and rights of medieval women; their access to power; a study of women's writings and the constraints of social constructs upon the female authorial voice; and contemporary assumptions about women.

HIST 496 Africa Since Independence (3) Analysis of socio-political and econo-political changes in Africa since approximately 1960; development of class structures, the role of the military, personal rule and the patrimonial state; decline of party politics and participatory politics. Discussion of changes in economic policies, policies with respect to rural communities, and their relationship to the state and decision-making.

HIST 497 Islam in Africa (3) The introduction of Muslims and Islam into Africa from approximately the 8th to 19th-century. Impact of Islam on a regional-cultural basis, as well as Islam in state development and in political theory. The impact of Islam on social structures, e.g., domestic African slavery. Role of Islam in resistance movements against imperialism and colonization, and the place of Islam in independence and post-independence movements.

HIST 499 Independent Study (1-3) Prerequisite: permission of department. Repeatable to 6 credits.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

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<th>Number</th>
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<tr>
<td>000-099</td>
<td>Non-credit course</td>
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<tr>
<td>100-199</td>
<td>Primarily freshman course</td>
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<td>200-299</td>
<td>Primarily sophomore course</td>
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<tr>
<td>300-399</td>
<td>Junior, senior course not acceptable for credit toward graduate degrees</td>
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<tr>
<td>386-387</td>
<td>Campus-wide internship courses; refer to information describing Experiential Learning</td>
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<tr>
<td>400-499</td>
<td>Junior, senior course acceptable for credit toward some graduate degree</td>
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<tr>
<td>500-599</td>
<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
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<td>600-899</td>
<td>Course restricted to graduate students</td>
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<td>799</td>
<td>Master Thesis credit</td>
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<td>899</td>
<td>Doctoral Dissertation credit</td>
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Use the search box below to view the approved courses.

Select Program:  HLHP - Health and Human Performance

Course Number:  

Courses in “HLHP-Health and Human Performance”

HLHP - Health and Human Performance

**HLHP 386 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing. Formerly PERH 386.

**HLHP 488 Children’s Health and Development Clinic (1-4)** Prerequisite: permission of department. Repeatable to 4 credits. An opportunity to acquire training and experience in a therapeutically oriented physical education-recreation program for children referred by various education, special education, medical or psychiatric groups.

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Use the search box below to view the approved courses.

Select Program: HLTH - Health

Course Number: [Search]

Courses in "HLTH-Health"

HLTH - Health

HLTH 105 Science and Theory of Health (2) The scientific and philosophical bases for various theories of health, including health, wellness, individual control and limitations of health status, and holistic health.

HLTH 106 Drug Use and Abuse (3) An interdisciplinary analysis of contemporary drug issues and problems. The course will examine physiological, psychological, social, philosophical, historical, legal and health aspects of drug use and abuse. Special attention will be focused on those general motivations for drug use that attend life on the college campus.

HLTH 130 Introduction to Public and Community Health (3) Not open to non-majors with more than 60
credits. Not open to students who have completed HLTH105. Credit will be granted for only one of the following: HLTH105 or HLTH130. Formerly HLTH 105. An introduction to the theory and practice of public and community health. The influence of public health professionals on the past, present, and future health status of society through the examination of critical health issues will be described. Programming models, theories and policy development are included.

**HLTH 140 Personal and Community Health (3)** Meaning and significance of physical, mental and social health as related to the individual and to society; important phases of national health problems; constructive methods of promoting health of the individual and the community.

**HLTH 150 First Aid and Emergency Medical Services (2)** Lecture, discussion and practice to train students in cardiopulmonary resuscitation (CPR) for adults, children and infants. Students will also learn first aid skills related to hemorrhage control, care for musculoskeletal injuries and care for sudden illnesses. Upon successful completion of the course, students will be awarded American Red Cross CPR and first aid certification.

**HLTH 230 Introduction to Health Behavior (3)** Pre- or corequisite: HLTH130. For HLTH majors only. Psychological, social psychological, and sociological approaches to the following health areas: development of health attitudes and behavior, patient-provider interaction and the organization of health care.

**HLTH 285 Controlling Stress and Tension (3)** Health problems related to stress and tension. Analysis of causative psychosocial stressors and intervening physiological mechanisms. Emphasis on prevention and control of stress through techniques such as biofeedback, meditation and neuromuscular relaxation.

**HLTH 289 Topical Investigations (1-3)** Repeatable to 6 credits if content differs. Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

**HLTH 371 Communicating Safety and Health (3)** The communication and evaluation of safety and health information. Emphasis on various types of communications and recipient factors which contribute to their success or failure.

**HLTH 377 Human Sexuality (3)** The biological and developmental aspects of human sexuality; the psychological and emotional aspects of sexual behavior; sexual identity; the historical, cultural, social, linguistic, legal and moral forces affecting sexual issues; the importance of communication, disclosure and intimacy in interpersonal relationships; and research trends in the area of human sexuality.

**HLTH 380 Peer Education: Alcohol and Other Drugs (3)** Two hours of lecture and three hours of laboratory per week. Prerequisite: HLTH106; and permission of department. Peer training dealing with drug information and abuse to facilitate workshops in various outreach locations (dorms, Greek system, classrooms).

**HLTH 381 Peer Education: Stress Management (3)** Two hours of lecture and three hours of laboratory per week. Prerequisite: HLTH285; and permission of department. Peer training in different forms of stress management to facilitate workshops in various outreach locations (dorms, Greek system, classes).

**HLTH 382 Peer Education: Sexuality and Communication (3)** Two hours of lecture and three hours of laboratory per week. Prerequisite: HLTH377; and permission of department. Peer training in communication and issues of sexuality to facilitate workshops in various outreach locations (dorms, Greek system, classes).

**HLTH 383 Peer Education: Reproductive Health (3)** Two hours of lecture and three hours of laboratory per week. Prerequisite: HLTH377; and permission of department. Peer training in methods of birth control, sexually transmitted disease and AIDS education to facilitate workshops in the student Health Center and various outreach locations (dorms, Greek system, classes).

**HLTH 385 Experiential Learning (3-6)** Prerequisite: permission of department. Junior standing.

**HLTH 389 Topical Investigations (1-3)** Repeatable to 6 credits if content differs. Independent study by an individual student or an experimental course in special areas of knowledge not covered by regularly scheduled courses.

**HLTH 391 Principles of Community Health I (3)** Prerequisites: HLTH140 and HLTH230. For HLTH majors only. Broad overview of community health. Health promotion, consumer health, public health, school health, environmental health, preventive medicine, human biology and the health care system are examined. Each area’s contribution to community health is discussed.

**HLTH 400 Service/Learning in Health Education (3)** Prerequisite: permission of department; For HLTH ED majors only. Junior standing. Application of health education knowledge and skills to serve health education needs in the community. Combines community service with preparation and reflection.
HLTH 420 Methods and Materials in Health Education (3) Prerequisites: HLTH105 or HLTH140. The purpose of this course is to present the interrelationships of curriculum planning, methodology and the selection and use of teaching aids and materials. Special problems associated with health teaching are discussed. Students become familiar with a variety of resources as well as with planning for and presenting demonstration lessons.

HLTH 430 Health Education in the Workplace (3) A survey of the role of health education in work settings. Examination of occupational stress, the health effects of shift work, women's health in the workplace, health education approaches to informing workers and management, and health promotion programs in the workplace.

HLTH 437 Consumer Behavior (3) Prerequisites: PSYC100; and SOCY100. An application of the behavioral sciences to a study of consumer behavior. Current theories, models and empirical research findings are explored.

HLTH 460 Minority Health (2-6) Prerequisite: HLTH140 or HLTH230 or permission of department. Health concerns of U.S. ethnic minority groups and factors placing them at elevated risk for disease and injury. Health education concepts and strategies to reduce disparities between their health status and the health status of the general population.

HLTH 471 Women's Health (3) Also offered as WMST471. Credit will be granted for only one of the following: HLT471 or WMST471. The historical, physiological, psychological, and sociological mechanisms which contribute to women's health. Topics will include gynecological concerns and reproductive health; nutrition, exercise; violence; substance use/abuse; and the health of special populations.

HLTH 476 Death Education (3) Examination of the genesis and development of present day death attitudes and behavior by use of a multidisciplinary life cycle approach.

HLTH 485 Ways of Knowing About Human Stress and Tension (3) Prerequisite: HLTH285. Not open to students who have completed HLTH498T. A critical examination of propositions describing the nature of the human condition and the consequences of the propositions on human stress and tension.

HLTH 486 Stress and the Healthy Mind (3) Prerequisite: HLTH285. For HLTH majors only. Explores diverse mental health and related behavioral skills as needed by health educators that: facilitate coping with stress, are preventive in nature; and are suitable for learning by healthy individuals in educational settings.

HLTH 489 Field Laboratory Projects and Workshop (1-6) Note: the maximum total number of credits that may be earned toward any degree in kinesiology or health education under KNES or HLTH489 is six. A course designed to meet the needs of persons in the field with respect to workshop and research projects in special areas of knowledge not covered by regularly structured courses.

HLTH 490 Principles of Community Health II (3) Two hours of lecture and four hours of laboratory per week. Prerequisite: HLTH391. Students will be involved in the applied aspects of community health education. They will work with specific local community groups, planning, developing, implementing and evaluating a community health project. Health agencies and community health marketing techniques will be investigated.

HLTH 491 Community Health Internship (12) 40 hours of laboratory per week. For community health majors only. Prerequisite: HLTH490. Integrating theory with practice in a community health setting.

HLTH 498 Special Topics in Health (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Topics of special interest in areas not covered by regularly scheduled courses.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: HONR - Honors

Course Number:  

Search

Courses in “HONR-Honors”

**HONR - Honors**

**HONR 100 Honors Colloquium (1)** Prerequisite: permission of University Honors Program. Attendance at various additional activities and events is required. Reading and discussion on the personal and social value of higher education; development of a coherent general education program; exploration of the educational and cultural resources of the campus and metropolitan area; participation in a community service project; and other activities designed to broaden students' conception of what it means to be an educated person.

**HONR 149 Honors Colloquium (3)** Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. A colloquium on a variety of topics.
HONR 168 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 169 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 200 Honors Research Colloquium (1) Prerequisite: permission of University Honors Program. Recommended for students in their second semester. All others should meet with the Honors Advisor. Introduction to scholarly research through readings and meetings with faculty from various disciplines; exploration of research methods and some of the problems encountered in research; discussion of the creative process; attendance at scholarly lectures; and other activities designed to prepare students to enter college or departmental honors programs.

HONR 201 Beginning Research (1-3) Prerequisite: permission of University Honors Program. Involves preliminary investigation, under individual faculty guidance, of a research question chosen by the student.

HONR 208 Honors Seminar (1-3) Prerequisite: permission of the University Honors Program. Repeatable to 9 credits if content differs.

HONR 209 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 216 In Search of Ancient Astronomies (3) Prerequisite: permission of University Honors Program. For HONR majors only. Not open to students who have completed HONR218A. Credit will be granted for only one of the following: HONR216 or HONR218A. Formerly HONR218A. An introduction to Archaeoastronomy, the interdisciplinary study of the astronomical practices, celestial lore, mythologies, religions, and cosmologies of ancient and indigenous peoples.

HONR 217 Life, The Multiverse and Everything: Developing an Individual (3) Cosmovision In this Honors seminar, students pursue personal cosmologies in light of our contemporary core "Western" scientific world-view and a selection of other ancient and indigenous cosmographies for comparison including those of Mesoamerica, the Inca, the Egyptians or the Chinese.

HONR 218 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 219 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 228 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 229 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 238 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 239 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 239P Higher, Faster, Farther: Case Studies from Aerospace History (3)

HONR 248 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 249 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 258 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 259 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 267 Knowledge Across Disciplines (3) Prerequisite: permission of University Honors Program. Interdisciplinary seminar that explores knowledge in the context of contemporary experience, using key texts and discoveries from biology, mathematics, physics, political theory, humanities and the creative arts.
HONR 268 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 269 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 278 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

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HONR 298 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 299 Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs.

HONR 299L Exploring the Mystery of Amazonia: An Interdisciplinary Approach to Environmental Issues (3)

HONR 299X The Geography of China (3)

HONR 318 Advanced Honors Seminar (3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. A series of seminars, often interdisciplinary in character, and sometimes team taught. The subjects will vary from semester to semester.

HONR 328 Advanced Honors Seminar (3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. A series of seminars, often interdisciplinary in character, and sometimes team taught. The subjects will vary from semester to semester.

HONR 338 Advanced Honors Seminar (3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. A series of seminars, often interdisciplinary and sometimes team taught. The subjects will vary from semester to semester.

HONR 348 Advanced Honors Seminar (1-3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. A series of seminars, often interdisciplinary and sometimes team taught. The subjects will vary from semester to semester.

HONR 349 Honors Colloquium (1-3) Prerequisite: University or departmental Honors student or permission of instructor and the Director of University Honors. Repeatable to 3 credits if content differs. A series of seminars, often interdisciplinary and sometimes team taught. Subjects may vary.

HONR 358 Honors Practicum (3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. Formerly HONR 379. For student section leaders of HONR100 or HONR200.

HONR 359 Honors Workshop (1-6) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. Honors workshops are small seminar classes which concentrate on skill development.

HONR 368 Advanced Honors Seminar (3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. A series of seminars, often interdisciplinary in character and sometimes team-taught. The subjects will vary from semester to semester.

HONR 378 Advanced Honors Seminar (3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. A series of seminars, often interdisciplinary in character and sometimes team-taught. The subjects will vary from semester to semester.

HONR 379 Honors Independent Study (1-6) Prerequisite: permission of University Honors Program. Repeatable to 6 credits if content differs. Involves reading or research directed by individual faculty, especially in areas outside of the student's major. Open only to University honors students.
HONR 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

HONR 388 Honors Thesis or Project (3-6) Repeatable to 6 credits if content differs. Formerly HONR 370.

HONR 389 Guided Honors Teaching (3) Prerequisite: permission of University Honors Program. Repeatable to 9 credits if content differs. For HONR100 and HONR200 section leaders. Guided teaching experience for selected students in the University Honors Program.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: ITAL - Italian

Course Number:  

Courses in "ITAL-Italian"

ITAL - Italian

ITAL 101 Elementary Italian I (4) Credit will be granted for only one of the following: ITAL101 or ITAL121. Introduction to basic grammar and vocabulary; written and oral work.

ITAL 102 Elementary Italian II (4) Prerequisite: ITAL101 or permission of department. Continuation of study of basic grammar; written and oral work, with increased emphasis on spoken Italian.

ITAL 103 Intensive Elementary Italian (4) Three hours of lecture and one hour of laboratory per week. Not open to students who have completed more than two years of high school Italian, or to fluent/native speakers of Italian. Credit will be granted for only one of the following: ITAL103 or ITAL121. Covers speaking,
reading, writing, listening, and culture of Italian-speaking world.

ITAL 121 Accelerated Italian I (3) Credit will be granted for only one of the following: ITAL103 or ITAL121. An intensive beginning course in Italian language skills: guided practice in reading, writing, understanding and conversation, to enable the student to move more quickly to advanced courses. Restricted to students already having a good background in at least one other foreign language. When taken with ITAL122, may be used to satisfy language requirement.

ITAL 122 Accelerated Italian II (3) Prerequisite: ITAL121 or permission of department. Credit will be granted for only one of the following: ITAL203 or ITAL122. Continuation of ITAL121. Completion of accelerated cycle. May be used to satisfy language requirement.

ITAL 203 Intensive Intermediate Italian (4) Prerequisite: ITAL103 or equivalent. Not open to students who have completed ITAL122, four years of high school Italian, or to fluent/native speakers of Italian. Credit will be granted for only one of the following: ITAL203 or ITAL122. Covers speaking, reading, writing, listening, and culture of Italian-speaking world.

ITAL 204 Review Grammar and Composition (3) Prerequisite: ITAL203 or ITAL122, or permission of department. An intensive review of major aspects of contemporary grammatical usage; training in comprehension; an introduction to guided composition.

ITAL 211 Intermediate Conversation (3) Prerequisite: ITAL203 or permission of department. Not open to fluent/native speakers of Italian. Practice in spoken Italian with emphasis on contemporary Italian culture.

ITAL 241 Modern Italian Women Writers - in Translation (3) An analysis of the writings and the ideas of modern Italian women writers.

ITAL 251 Aspects of Contemporary Italian Literature and Culture (3) Prerequisite: ITAL204 or ITAL211 or permission of department. Reading of selected literary texts; discussion and brief essays in Italian.

ITAL 261 Cuisine, Culture, and Society in Italy Yesterday and Today (3) Prerequisite: ITAL204 or permission of department. This course will expose students to an important aspect of Italian culture. The art of gastronomy. Taught entirely in Italian, the course is intended to give students an in-depth understanding of the close relationship between food and culture, while enriching their knowledge of the Italian language through reading and analysis of various texts which deal with the preparation and adaptation of Italian food in different cultural settings.

ITAL 271 The Italian-American Experience (in English) (3) This course is an interdisciplinary study of Italian immigrants in the U.S. from the discovery of America to the present. Special emphasis on the intellectual, artistic and scientific achievements of Italian Americans in the New World and the formation of their national identity as a product of a new hybridized culture. The phenomenon of Italglish as an immigrant idiom, the problem of multiculturalism and the issue of ethnicity will also be examined in relationship with other ethno-cultural groups.

ITAL 301 Composition and Style (3) Prerequisite: ITAL204 or permission of department. Techniques of composition; grammatical analysis; elements of style; free composition.

ITAL 302 Introduction to Translation (3) Prerequisite: ITAL204 or permission of department. Translation exercises into English and Italian; problems and strategies.

ITAL 306 Commercial Italian I (3) Prerequisite: ITAL204 or permission of department. An introduction to Italian Business language and culture. Special emphasis on communicative strategies used in business transactions and applications. Reading and discussion of relevant articles relating to business world from online newspapers and magazines.

ITAL 311 Italian Conversation: Current Events (3) Prerequisite: ITAL211 or permission of department. Oral expression; development of idiomatic forms and vocabulary to level of the Italian press. Not open to students with native fluency.

ITAL 350 Readings in Italian Literature (3) Prerequisite: ITAL251 or permission of department. An exploration of principal figures, themes and styles from Dante through the Renaissance to Pirandello and present-day writers.

ITAL 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

ITAL 388 Language House Colloquium (1) Prerequisite: Residence in Language House. Repeatable to 4 credits. The Language House Colloquium is a one-credit course for students residing in the Language House.
Immersion Program. The course focuses on the further development of skills in the target language and the acquiring of cultural knowledge of the countries that speak the target language. The course is designed to supplement the learning that takes place on a daily basis in the Language House program.

**ITAL 399 Directed Study in Italian (1-3)** Prerequisite: permission of department. Repeatable to 3 credits. Intended for undergraduates who wish to work on an individual basis with a professor of their choice.

**ITAL 406 Commercial Italian II (3)** Prerequisite: ITAL306 or permission of department. Advanced study of commercial Italian language - terminology and style - in the area of business and finance. Emphasis on cross-cultural communications and international business operations, including exporting and banking. Readings on sociological issues of contemporary Italy used for written and oral practice of Italian and vocabulary enrichment.

**ITAL 411 Dante in Translation (3)** Credit will be granted for only one of the following: ITAL411 or ITAL412. Dante’s thought as expressed in his major writings: The Vita Nuova, De Monarchia and The Divine Comedy. In English.

**ITAL 412 Dante in Italian (3)** Credit will be granted for only one of the following: ITAL411 or ITAL412. Dante’s thought as expressed in his major writings: The Vita Nuova, De Monarchia and The Divine Comedy. In Italian.

**ITAL 421 The Italian Renaissance (3)** Credit will be granted for only one of the following: ITAL421 or ITAL422. A study of Major trends of thought in Renaissance literature, art, and science. In English.

**ITAL 422 The Italian Renaissance in Italian (3)** Credit will be granted for only one of the following: ITAL421 or ITAL422. A study of major trends of thought in Renaissance literature, art, and science. In Italian.

**ITAL 431 Italian Civilization in Translation (3)** Credit will be granted for only one of the following: ITAL431 or ITAL432. Political, social, intellectual, literary and artistic forces shaping contemporary Italy from the late Middle Ages to the present. In English.

**ITAL 432 Italian Civilization in Italian (3)** Credit will be granted for only one of the following: ITAL431 or ITAL432. Political, social, intellectual, literary and artistic forces shaping contemporary Italy from the late Middle Ages to the present. In Italian.

**ITAL 471 Italian Cinema: A Cultural Approach in Translation (3)** Credit will be granted for only one of the following: ITAL471 or ITAL472. Formerly ITAL 475. The culture of Italy through the medium of film from the silent days up to the present. In English.

**ITAL 472 Italian Cinema: A Cultural Approach in Italian (3)** Credit will be granted for only one of the following: ITAL471 or ITAL472. The culture of Italy through the medium of film from the silent days up to the present. In Italian.

**ITAL 473 Italian Cinema II - In Translation (3)** Freshman standing. Repeatable to 3 credits if content differs. Also offered as ITAL474. Credit will be granted for only one of the following: ITAL473 or ITAL474. Formerly ITAL 499E. A study of Italian society and culture through the medium of film from the mid 1970’s to the present. In English.

**ITAL 474 Italian Cinema II - In Italian (3)** Three hours of lecture and one hour of discussion/recitation per week. Also offered as ITAL473. Credit will be granted for only one of the following: ITAL473 or ITAL474. Formerly ITAL 499I. A study of Italian society and culture through the medium of film from the mid 1970’s to the present. In Italian.

**ITAL 475 The Italian Opera Libretto in English (3)** Prerequisite: One course in literature. Credit will be granted for only one of the following: ITAL475, or ITAL476. History and analysis of Italian opera librettos from Monteverdi through Mozart to Verdi and Puccini. In English.

**ITAL 476 The Italian Opera Libretto in Italian (3)** Credit will be granted for only one of the following: ITAL475 or ITAL476. History and analysis of Italian opera librettos from Monteverdi through Mozart to Verdi and Puccini. In Italian.

**ITAL 497 Senior Project (3)** Prerequisite: four courses at 400-level in Italian; permission of department. Individual independent study of an aspect of Italian literature, culture or society selected according to student interest and need in consultation with a member of the Italian program.

**ITAL 498 Special Topics in Italian Literature (3)** Repeatable to 6 credits if content differs.

**ITAL 499 Special Topics in Italian Studies (3)** Repeatable to 6 credits if content differs.
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Select Program: IVSP - Individual Studies Program
Course Number: Search

Courses in "IVSP-Individual Studies Program"

**IVSP - Individual Studies Program**

**IVSP 317 Progress Report (1)** Prerequisite: admission to IVSP major. A written analysis of the program. Students register for IVSP 317 only once, the semester before the final term.

**IVSP 318 Independent Learning Activities (1-6)** Prerequisite: admission to IVSP major and prior arrangements with faculty sponsor. For IVSP majors only. Repeatable to 9 credits if content differs. An independent study course which students can use for a variety of out-of-class internship and research opportunities.

**IVSP 420 Senior Paper (3)** Prerequisite: admission to IVSP major. For IVSP majors only. Synthesizing final paper or a final special project.
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### Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

**Select Program:** JAPN - Japanese  
**Course Number:**  

Courses in "JAPN-Japanese"

**JAPN - Japanese**

- **JAPN 101 Elementary Japanese I (6)** Introduction to basic patterns of contemporary spoken Japanese and to the two phonetic syllabaries (Katakana and Hiragana).

- **JAPN 102 Elementary Japanese II (6)** Prerequisite: JAPN101 or equivalent. Continued introduction to the basic spoken patterns of contemporary Japanese.

- **JAPN 106 Introductory Japanese III (3)** Prerequisite: JAPN101 or equivalent. Not open to students who have completed JAPN102. Credit will be granted for only one of the following: JAPN102 or JAPN106. Introduction to the basic spoken patterns of contemporary Japanese, and to limited reading and writing in
kana/kanji. Intended for incoming freshmen and transfer students with some previous knowledge of Japanese.

**JAPN 201 Intermediate Japanese I (6)** Prerequisite: JAPN102 or equivalent. Contemporary spoken and written Japanese.

**JAPN 202 Intermediate Japanese II (6)** Prerequisite: JAPN201 or equivalent. Contemporary spoken and written Japanese.

**JAPN 214 Japanese Culture and Communication Viewed Through Anime (3)** By viewing animation with an emphasis on school life and youth culture, this course addresses issues such as interpersonal communication (verbal and non-verbal behavior), cultural values, norms, and expectations. Also, it introduces colloquial language. No previous knowledge of Japanese is required. Open to high school seniors.

**JAPN 217 Japanese Literature in the Age of the Samurai (3)** Introduction to the masterworks of medieval Japanese literature (c. 1200-1850) and to their intellectual and cultural backgrounds, focusing on prose fiction and drama.

**JAPN 298 Special Topics Japanese Literature (3)** Repeatable to 9 credits if content differs. Special topics in Japanese literature.

**JAPN 301 Advanced Japanese I (6)** Prerequisite: JAPN202 or equivalent. Advanced conversation, oral comprehension, and selected readings.

**JAPN 302 Advanced Japanese II (6)** Prerequisite: JAPN301 or equivalent. Continued readings in varied modern texts and advanced conversation and oral comprehension.

**JAPN 317 Buddhism and Japanese Literature in Translation (3)** Religious and philosophical traditions central to Japanese imaginative life and literature from ancient to modern times.

**JAPN 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**JAPN 388 Language House Spring Colloquium (1)** Prerequisite: Residence in Language House. Repeatable to 8 credits. For students residing in the Language House Immersion Program. Focuses on the development of skills in the target language and acquiring the cultural knowledge of the countries that speak the target language.

**JAPN 401 Readings in Modern Japanese I (3)** Prerequisite: JAPN302 or equivalent. Development of translation techniques, vocabulary, grammar, and reading speed. Readings in history, social sciences, modern literature, and modern newspaper and periodical literature.

**JAPN 402 Readings in Modern Japanese II (3)** Prerequisite: JAPN401 or equivalent. Continuation of more advanced readings.

**JAPN 403 Business Japanese I (3)** Prerequisite: JAPN302 or equivalent. Conversation, reading, and writing applicable to Japanese business transactions, social meetings, and meetings with government organizations, with background material in English on professional business practices and social customs associated with business.

**JAPN 404 Business Japanese II (3)** Prerequisite: JAPN403 or equivalent. Continuation of JAPN 403.

**JAPN 405 Readings in Advanced Modern Japanese (3)** Prerequisite: JAPN402 or equivalent or permission of department. Designed to further improve reading and translation skills; the course will include readings from newspaper articles, literary works, and academic publications in the social sciences and humanities. Listening exercises are included.

**JAPN 406 Translating Diplomatic Japanese (3)** Prerequisite: JAPN302 and permission of department. Formal, written, diplomatic Japanese to develop practical translation skills and to learn to use the computer as a telecommunications and translation workstation.


**JAPN 412 Classical Japanese (3)** Prerequisite: JAPN411. Continuation of JAPN 411 with more advanced classical Japanese.
JAPN 414 Masterpieces of Classical Japanese Literature in Translation (3) Major classics, with focus on philosophical, historical and cultural backgrounds.

JAPN 415 Modern Japanese Fiction in Translation (3) Major themes and literary developments in fiction from the late 19th century to the present. Emphasis on the works of Kawabata, Tanizaki, Mishima, and Abe.

JAPN 416 Japanese Women and Women Writers (3) Fiction and poetry by Japanese women from the Ninth Century to the present. Women’s early role in creating and shaping a variety of literary genres, the silencing of women during the age of the shoguns, and the reemergence of a feminist tradition and women writers in the Twentieth Century. In English.

JAPN 418 Japanese Literature in Translation (3) Repeatable to 9 credits if content differs. Representative works of Japanese literature in translation.


JAPN 422 Introductory Japanese Linguistics (3) An investigation of Japanese sound patterns and syntax through a comparison with English.

JAPN 428 Seminar in Japanese Discourse and Conversation Analysis (3) Prerequisite: JAPN302. Recommended: JAPN422. Repeatable to 6 credits if content differs. Presentation and discussion of classic and current readings in English and Japanese on theories and actual practice of discourse and conversation analysis. Students will learn transcription techniques and have an opportunity to apply them in a final term paper.

JAPN 438 Topics in Japanese Pragmatics (3) Prerequisite: JAPN201. Recommended: JAPN422. Repeatable to 9 credits if content differs. Also offered as JAPN638. Credit will be granted for only one of the following: JAPN438 or JAPN638. Basic concepts in the field of pragmatics (the study of language in context) such as deixis and indexicality, speech acts, ellipsis, and politeness. Readings in English on English and Japanese examples.

JAPN 499 Directed Study in Japanese (1-3) Prerequisite: permission of instructor. Repeatable to 6 credits if content differs.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: JOUR - Journalism

Course Number: Search

Courses in "JOUR-Journalism"

JOUR - Journalism

JOUR 100 Professional Orientation (1) Not open to students who have completed JOUR101. Credit will be granted for only one of the following: JOUR100 or JOUR101. Formerly JOUR 101. Survey of journalism professions, emphasizing appropriate academic and career development strategies.

JOUR 150 Introduction to Mass Communication (3) Not open to students who have completed JOUR100 prior to Fall 1999. Credit will be granted for only one of the following: JOUR100 or JOUR150. Formerly JOUR 100. Survey of the functions and effects of the mass media in the United States. A consumer's introduction to newspapers, television, radio, film, sound recording, books, magazines, and new media technology.
JOUR 175 Media Literacy (3) Two hours of lecture and one hour of discussion/recitation per week. Not applicable toward journalism major. An analysis of the information, values and underlying messages conveyed via television, newspapers, the internet, magazines, radio and film. Examines the accuracy of those messages and explores how media shape views of politics, culture and society.

JOUR 181 Grammar for Journalists (1) Pre- or corequisite: JOUR100. Credit will be granted for only one of the following: ENGL181, ENGL281, or JOUR181. An examination of the basic structure of written English needed for precise journalistic writing. Parts of speech, sentence patterns, standard punctuation, diction, and usage will be examined with emphasis with an emphasis on its application in journalism.

JOUR 198 Survey Apprenticeship (1) Prerequisite: permission of department. For JOUR majors only. Repeatable to 6 credits if content differs. College-monitored experience in approved mass-communications organizations and industries.

JOUR 199 Survey Apprenticeship (1) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Formerly JOUR 198. College-monitored experience in approved mass-communications organizations and industries.

JOUR 200 Journalism History, Roles and Structures (3) Pre- or corequisite: JOUR100. For JOUR majors only. Introduction to the study of journalism from the standpoint of media history and sociology.

JOUR 201 News Writing and Reporting I (3) Pre- or corequisite: JOUR100. Grammar competency demonstrated by a grade of C (2.0) or better in JOUR181 or a score of 52 or higher on the TSWE and permission of department. Sophomore standing. Introduction to news for the print and electronic media, development of new concepts: laboratory in news-gathering tools and writing skills.

JOUR 202 News Editing (3) Prerequisite: grade of C or better in JOUR201. For JOUR majors only. Copy editing, graphic principles and processes, new media technology.

JOUR 203 New Media (1) One hour of lecture and one hour of laboratory per week. Prerequisite: JOUR201. Corequisite: JOUR202. Preparing textual, audio and video news messages in a traditional deadline atmosphere for digital delivery.

JOUR 231 News Writing and Reporting for Public Relations (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: grammar competency demonstrated by a score of 52 or higher on the TSWE and permission of department. Credit will be granted for only one of the following: JOUR201P or JOUR231. Introduction to news for the print and electronic media, development of new concepts: laboratory in news-gathering tools and writing skills.

JOUR 232 News Editing for Public Relations (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: Grade of C or better in JOUR231 or equivalent and permission of department. Credit will be granted for only one of the following: JOUR202P or JOUR232. Copy editing, graphic principles and processes, new media technology.

JOUR 240 Advertising in America (3) Not open to students who have completed JOUR340. Credit will be granted for only one of the following: JOUR240 or JOUR340. Formerly JOUR 340. Survey of the history, regulation and organization of advertising; advertising strategies and effects.

JOUR 262 News Editing for Broadcast (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: Grade of C or better in JOUR201 and permission of department. Credit will be granted for only one of the following: JOUR202B or JOUR262. Principles and processes of broadcast newsroom editing.

JOUR 300 Journalism Ethics (3) Prerequisite: JOUR201. Examination of ethical problems in news writing and reporting.

JOUR 320 News Writing and Reporting II: Print (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: grade of C or better in JOUR201. For JOUR majors only. Principles and practices of news reporting; covering news beats and other news sources, including researching news stories for accuracy, comprehensiveness and interpretation.

JOUR 322 Advanced Reporting: Beats and Investigation (3) Prerequisite: JOUR320 or JOUR360. Advanced training and practice in writing, interviewing, beat reporting and investigative techniques. Students meet in weekly seminars and work with metropolitan-area newspapers covering beats and writing stories for publication.

JOUR 323 Advanced News Editing (3) Prerequisite: grade of C or better in JOUR202. Principles and practices of editing for publication. Copy improvement, headline writing, news photos and cutlines, wire services, copy control and scheduling, page design and layout.
JOUR 324 Commentary and Editorial Writing (3) Prerequisite: JOUR320 or JOUR360. Not open to students who have completed JOUR326 prior to January 1, 1992. Formerly JOUR 326. Journalistic interpretation and analysis; commentary and editorial writing.

JOUR 325 Print News Bureau (6) Prerequisite: JOUR320 and permission of department. Advanced journalism training. Students report as part of College's Capital News Service program.

JOUR 328 Special Topics in News Writing and Reporting (1-3) Prerequisite: JOUR320 or JOUR360. Repeatable to 6 credits if content differs. Advanced training and practice in writing and reporting news.

JOUR 350 Graphics (3) Prerequisite: grade of C or better in JOUR202. Credit will be granted for only one of the following: JOUR350 or JOUR373. Formerly JOUR 373. Introduction to visual components of new content and design; type and typography, printing processes, and illustration.

JOUR 351 Advanced Graphics (3) Prerequisite: JOUR350. In-depth analysis of News graphics.

JOUR 352 Online Journalism (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: JOUR202 or JOUR262. For JOUR majors only. Editing and writing online, using basic Web-coding skills and tools to create news and feature packages for the Internet. New-media issues, including interactivity and individualization, will also be discussed.

JOUR 353 Advanced Online Reporting (3) Three hours of laboratory per week. Prerequisite: JOUR352, permission of department and JOUR320 or JOUR360. Advanced reporting and writing in an online environment focusing on multimedia and non-traditional storytelling. Students report and write for an online magazine.

JOUR 355 Online News Bureau (3) Prerequisite: (JOUR202 or JOUR262) and (JOUR320 or JOUR360) and JOUR352; and permission of department. Advanced online journalism training. Students work as multimedia editors and producers for an online newsmagazine, building interactive content and special reports.

JOUR 360 News Writing and Reporting II: Broadcast (3) Prerequisite: grade of C or better in JOUR201. For JOUR majors only. Writing and reporting for broadcast media: production of news stories.

JOUR 361 Television Reporting and Production (3) Prerequisite: JOUR360. Writing and editing for the broadcast media. Interpretive and documentary news stories.

JOUR 362 Broadcast News Producing (3) One hour of lecture and four hours of laboratory per week. Prerequisite: JOUR262 and JOUR360;+. Pre- or corequisite: JOUR361. Credit will be granted for only one of the following: JOUR362 or JOUR368B. Formerly JOUR 368B. Producing TV news.

JOUR 363 Long Form Broadcast Journalism (3) Prerequisite: JOUR361 and permission of department. For JOUR majors only. Also offered as JOUR663. Credit will be granted for only one of the following: JOUR363 or JOUR486. Formerly JOUR 486. Production of long form broadcast news reporting, reality videos or documentaries.

JOUR 367 Broadcast News Bureau (6) Prerequisite: JOUR361 and permission of department. Advanced broadcast journalism training. Students report as part of the College's Capital News Service program.

JOUR 368 Topics in Broadcast and Electronic Media (1-3) Prerequisite: JOUR360. Repeatable to 6 credits if content differs. Advanced research, analysis and/or practice of selected topics in broadcast journalism.

JOUR 371 Feature Writing (3) Prerequisite: JOUR320. Research and writing feature articles.

JOUR 372 Writing the Complex Story (3) Prerequisite: JOUR371. Credit will be granted for only one of the following: JOUR372 or JOUR481. Formerly JOUR 481. Explanatory journalism technique applied to complex subjects (such as science, economics and large scale social change) for books, magazines and newspaper series.

JOUR 374 Magazine Editing and Production (3) Prerequisites: JOUR371 and JOUR373. Principles and techniques of magazine editing and production.

JOUR 375 Newsroom Management (3) Prerequisite: JOUR320 or JOUR360 or permission of department. Not open to students who have completed JOUR461. Credit will be granted for only one of the following: JOUR375 or JOUR461. Formerly JOUR 461. Organization, operation, and administration of the departments of a newsroom: advertising, business-finance, circulation, news-editorial, personnel, production and promotion.

JOUR 377 Literary Journalism (3) Pre- or corequisite: JOUR371. Credit will be granted for only one of the
following: JOUR377 or JOUR487. Formerly JOUR 487. Practice in the use of literary techniques and especially of dramatic structure in modern newspaper series, magazine pieces and books. Analysis, researching and writing of nonfiction stories, usually with a focus on a specialized area chosen by the student.

JOUR 380 Science Writing for News Media (3) Prerequisite: JOUR320 or permission of department. Writing of scientific and technical material for the general audience.

JOUR 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

JOUR 389 News Coverage of Special Topics (1-3) Prerequisite: JOUR320 or JOUR360. Repeatable to 6 credits. Advanced training and practice in writing and reporting news in one specialized field of interest.

JOUR 398 Independent Study (1-3) Repeatable to 3 credits. Individual projects in journalism.

JOUR 399 Supervised Internship (1) Prerequisite: Grade of C or better in JOUR320 or JOUR360. Repeatable to 3 credits if content differs. Credit will be granted for only one of the following: JOUR326, JOUR396, JOUR399. Formerly JOUR 396. Supervised news internship experience; relation of academic training to professional experience.

JOUR 400 Media Law (3) Prerequisite: JOUR320 or JOUR360 or JOUR501. Junior standing. Legal rights and constraints of mass media; libel, privacy, copyright, monopoly, contempt, and other aspects of the law applied to mass communication. Previous study of the law not required.

JOUR 410 History of Mass Communication (3) Junior standing. Development of newspapers, magazines, radio, television and motion pictures as media of mass communication. Analysis of the influences of the media on the historical development of America.

JOUR 420 Media Coverage of Government and Politics (3) Junior standing. Relationship between news media and government and politics; governmental and political information and persuasion techniques.


JOUR 440 Media Economics (3) Junior standing. Examination of the economics of the news media.

JOUR 450 Mass Media in Society (3) Junior standing. Ethical, moral, political, economic, and social consideration of mass communication.

JOUR 451 Advertising and Society (3) Junior standing. Advertising as an institution with manifest economic purposes and latent social effects. Influences of advertising on people, and related issues of ethics and social responsibility.

JOUR 452 Women in the Media (3) Junior standing. Also offered as WMST452. Credit will be granted for only one of the following: JOUR452 or WMST452. Participation and portrayal of women in the mass media from colonial to contemporary times.

JOUR 453 News Coverage of Racial Issues (3) Junior standing. Analysis of news media coverage of issues relating to racial minorities in the United States, with special attention to Hispanics, Asian Americans, African Americans and Native Americans.

JOUR 459 Special Topics in Journalism (1-3) Repeatable to 6 credits if content differs. Issues of special concern and current interest. Open to all students.


JOUR 463 Newsroom Management (3) Prerequisite: JOUR320 or JOUR360; or permission of department. Credit will be granted for only one of the following: JOUR375, JOUR461, or JOUR463. Formerly JOUR 375. Organization, operation, and administration of the departments of a newsroom: advertising, business-finance, circulation, news-editorial, personnel, production, and promotion.

JOUR 464 Readings in Journalism Literature (3) Credit will be granted for only one of the following: JOUR376 or JOUR464. Formerly JOUR 376. Analysis of books by journalists highly regarded for writing style and/or the content of their reporting, with an emphasis on understanding the books in the context of national and international affairs.
JOUR 465 Visual Communication (3) Prerequisite: JOUR201. Junior standing. Practical and theoretical examination of visual communication processes related to photography, layout and design, video and Web information products.

JOUR 466 Survey of Broadcast and Electronic News Media (3) Prerequisite: JOUR201. Credit will be granted for only one of the following: JOUR365 or JOUR466. Formerly JOUR 365. Descriptive and critical analysis of broadcast news practices, regulation and history; evaluation of news judgments; decision-making and organizational aspects of the broadcast news industry.

JOUR 467 Technology and the Media (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: JOUR320 or JOUR360. Recommended: JOUR352. Exploration of the role of information technology in social change.

JOUR 470 Journalism and Public Communication Research (3) Prerequisite: A university statistics course. Students are encouraged to have completed the theory and skills courses in their major sequence. Credit will be granted for only one of the following: JOUR470 or JOUR477. Formerly JOUR 477. Journalism and public communication research methods used in measuring public opinion and media programs and materials.

JOUR 471 Public Opinion Research (3) Prerequisite: a University statistics course. Measurement of public opinion and media habits; role of the media in the formation of public opinion.

JOUR 472 Computer-Assisted Reporting (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: JOUR320 or JOUR360. Not open to students who have completed JOUR328. Credit will be granted for only one of the following: JOUR328 or JOUR472. Formerly JOUR 328. Computer and online data acquisition; analytical methods for writing and reporting news.

JOUR 479 Special Topics in Data Gathering and Analysis (1-3) Prerequisite: JOUR320 and JOUR360. Repeatable to 3 credits. Special research topics for reporting and writing.

JOUR 494 Yearbook Short Course (1) Prerequisite: JOUR201 or permission of department. Credit not applicable toward major in journalism. Intensive course dealing with the theme, content, copy, design, advertising, budget, finance, law and ethics of yearbook development and production.

JOUR 498 Topics in Scholastic Journalism (1-3) Repeatable to 99 credits if content differs. Seminars on specialized areas on the practice of scholastic journalism.

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Select Program: JWST - Jewish Studies

Course Number: [Search]

Courses in "JWST-Jewish Studies"

JWST - Jewish Studies

**JWST 121 Jewish Civilization (3)** Also offered as HIST126. Credit will be granted for only one of the following: JWST121 or HIST126. Jewish history, culture and society from Biblical times to the present.

**JWST 141 American Jewish Experience (3)** Also offered as HIST106. Credit will be granted for only one of the following: JWST141 or HIST106. History of the Jews in America from Colonial times to the present. Emphasis on the waves of migration from Germany and Eastern Europe; the changing nature of the American Jewish community and its participation in American social, economic and political life.

**JWST 219 Special Topics in Jewish Studies (3)** Repeatable to 9 credits if content differs.
JWST 227 Reconstructing the Civilization of Ancient Mesopotamia (3) Also offered as HIST280. Not open to students who have completed HEBR440. Credit will be granted for only one of the following: JWST227 or HIST280. Formerly HEBR 440. History and culture of Ancient Mesopotamia, as reconstructed from archeology, language, and texts of the region. Emphasis on culture, literature, religion, and institutions.

JWST 230 Introduction to the Rabbinic Movement: History and Culture (3) Also offered as HIST281. Credit will be granted for only one of the following: JWST230 or HIST281. The emergence of the Rabbinic movement after the destruction of the Temple in 70 CE through the 7th Century CE. The essential texts of ancient rabbinic literature.

JWST 231 Jewish Texts and Cultures of the Second Temple Period (3) Credit will be granted for only one of the following: JWST231, JWST219C (Fall 2005), JWST219F (Fall 1998), HIST219C (Fall 2005), or HIST219D (Fall 1998). An introduction to the literature, history, and culture of Jews in the period between the sixth century BCE and the second century CE. Special topics may include the rise of the formation of the biblical canon, scriptural interpretation, sectarian and revolutionary movements, and growth of the diaspora.

JWST 234 History of the Jewish People I (3) Also offered as HIST282. Credit will be granted for only one of the following: JWST234 or HIST282. Political, economic, social and cultural development within Jewish history from the Biblical period to the late Middle Ages. Special attention to the emergence of Rabbinic Judaism and its subsequent encounter with medieval Christian and Islamic civilizations.

JWST 235 History of the Jewish People II (3) Also offered as HIST283. Credit will be granted for only one of the following: JWST235 or HIST283. Political, economic, social and cultural development within Jewish history from the end of the Middle Ages to the present. Special attention to the twentieth century developments including the Nazi Holocaust and its aftermath, the Zionist movement and the creation of the State of Israel, and the rise of the contemporary American-Jewish community.

JWST 250 Fundamental Concepts of Judaism (3) Also offered as PHIL234. Not open to students who have completed PHIL234. Credit will be granted for only one of the following: JWST250 or PHIL234. A conceptional introduction to Judaism, analysing its fundamental concepts from both analytical and historical perspectives. Discussion of "normative" Judaism as well as other conceptions of Judaism. Topics include: God, the Jewish people, authority, ethics, the sacred and the profane, particularism and universalism.

JWST 251 Authority, Faith, and Reason in Judaism (3) Also offered as PHIL235. Not open to students who have completed PHIL235 or HEBR298J. Credit will be granted for only one of the following: JWST251 or PHIL235. A broad survey of the concepts of authority, faith, and reason in Jewish tradition from the Bible to the modern period, and their interrelationships.

JWST 260 Introduction to Classical Hebrew I (3) Prerequisite: HEBR111 or equivalent. Also offered as HEBR298A. Not open to students who have completed HEBR401. Formerly HEBR 401. Readings of the Bible and other classical texts in original Hebrew. Emphasis on classical grammar and vocabulary, and reading of textual passages.

JWST 261 Introduction to Classical Hebrew II (3) Prerequisite: JWST260 or permission of department. Also offered as HEBR298B. Not open to students who have completed HEBR402. Formerly HEBR 402. Continuation of JWST 260. Readings in the Bible and other classical texts in original Hebrew. Emphasis on classical grammar and vocabulary, and reading of textual passages.

JWST 262 The Hebrew Bible: Narrative (3) Also offered as ENGL262. Not open to students who have completed HEBR223. Credit will be granted for only one of the following: JWST262 or ENGL262. Formerly HEBR 223. Selected readings from narrative sections of the Hebrew Bible stressing the new literary approaches to the biblical text. In English; no knowledge of Hebrew required.

JWST 263 Hebrew Bible: Poetry and Prophecy (3) Also offered as ENGL263. Not open to students who have completed HEBR224. Credit will be granted for only one of the following: JWST263 or ENGL263. Formerly HEBR 224. Readings of poetic and prophetic selections from the Hebrew Bible. Analysis of devices and their rhetorical effect. Comparison of biblical poetry with other poetry of the ancient Near East. In English; no knowledge of Hebrew required.

JWST 270 Fantasy and Supernatural in Jewish Literature (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as HONR2190. Credit will be granted for only one of the following: HONR2190, JWST219O, or JWST270. Formerly JWST 219O. An examination of Jewish fantastical and supernatural literature from ancient to modern times, tracing how such stories have addressed essential questions of good and evil, power and powerlessness within a Jewish framework. Topics include intersections of Jewish and non-Jewish cultures.

JWST 272 Jewish Literature in Translation (3) Not open to students who have completed HEBR231. Formerly HEBR 231. A survey of Jewish literature from ancient times to the present. Methods for reading literature in general and Jewish literature in particular will be emphasized. Concern with what makes a literary corpus "Jewish." Readings from the Bible, the Midrash, the Talmud, Medieval Hebrew poetry, as well as modern Hebrew, Yiddish, and English poetry and prose. All texts in English translation.
JWST 275 The Jew and the City through the Centuries (3) Also offered as HIST286. Credit will be granted for only one of the following: HIST286 or JWST275. Jewish urban experience from ancient times to the present. Public space and private. The city and the sacred. Jewish ghettos and quarters. The struggle over modern Jerusalem.

JWST 281 Yiddish I (3) Also offered as GERM148Y. Not open to students who have completed GERM148Y. Introduction to the Yiddish language, with emphasis on speaking, reading, and writing skills. Students will also learn the history of the language, its significance to Jewish culture, its origins and basic structure.

JWST 282 Elementary Yiddish II (3) Prerequisite: JWST281 or GERM148Y or permission of department. Also offered as GERM149Y. Not open to students who have completed GERM149Y. Continuation of JWST281.

JWST 304 Critical Approaches to Israeli Culture (3) Formerly: JWST419B and JWST419K. Also offered as HEBR498L. An examination of the intersections of literature, society, philosophy, and politics in the making of modern Israeli culture. Special attention will be paid to the Zionist emphasis on making “new” Jews and its implications when expressed in literature and society.

JWST 319 Special Topics in Jewish Studies (1-6) May be repeated to a maximum of 12 credits. Topics in Jewish Studies.

JWST 324 Biblical History and Culture (3) Also offered as HIST321. Not open to students who have completed HEBR333 or HIST321. Credit will be granted for only one of the following: JWST324 or HEBR333 or HIST321. Formerly HEBR 333. Study of the political, social, and religious development of the Jewish nation from its inception to its return from exile in Babylonia around 536 C.E. Focus on biblical texts, archeological finds, and source materials from neighboring cultures to reconstruct political history and the development of religious concepts.

JWST 325 Jews and Judaism in Antiquity I: Sixth Century BCE through the (3) First Century CE Also offered as HIST370. Credit will be granted for only one of the following: JWST325 or HIST370. Political, social and religious history of the Jews from the Persian Period to the Judean Revolt of 66-70CE. Special attention to the rise of sectarian and revolutionary movements.

JWST 326 Jews and Judaism in Antiquity II: First through Seventh Centuries (3) Also offered as HIST371. Credit will be granted for only one of the following: JWST326 or HIST371. Political, social and religious history of the Jews from the destruction of the Jerusalem Temple in 70 CE to the Muslim conquests. Special attention to the political transformations in Judaism under late Roman Christianity, and the rise of the Rabbinic movement.

JWST 331 Early Christianity: Jesus to Constantine (3) Also offered as HIST320. Not open to students who have completed HIST320. Credit will be granted for only one of the following: JWST331 or HIST320. Social and religious history of early Christianity from its origin in the first century to the reign of Constantine.

JWST 333 Jews in Early Modern Times 1450-1750 (3) Recommended: HIST282/JWST234. Also offered as HIST333. Not open to students who have completed HIST418C/JWST419C (Fall 2006, Fall 2004) or HIST419C/JWST419Y (Spring 2001). Formerly JWST 419C. Emergence of new powerful population centers, religious and cultural creativity, new forms of community, and radical messianic movements.

JWST 342 History of Zionism and the State of Israel (3) Also offered as HIST376. Credit will be granted for only one of the following: JWST342 or HIST376. Ideological and political factors leading to the establishment of a secular Jewish state in 1948; Zionist thought of Herzl, Ahad Haam, the socialist and religious Zionists, and the revisionists; diplomatic activities; Arab-Israeli conflict; post-1948 Israeli society.

JWST 343 Modern Jewish History I: The Road to Emancipation, 1650-1870 (3) Also offered as HIST374. Credit will be granted for only one of the following: JWST343 or HIST374. Social, political, economic, and cultural change in the Jewish world since 1650. Emphasis on emancipation, assimilation, and new forms of Jewish identity in Western and Eastern European Jewry from the 17th to the 20th centuries.

JWST 344 Modern Jewish History II: World Jewry Since 1870 (3) Also offered as HIST375. Credit will be granted for only one of the following: JWST344 or HIST375. Continuation of JWST343: Social, political, economic, and cultural change in the Jewish world since 1870. Emphasis on emancipation, assimilation, and new forms of Jewish identity in Western and Eastern European Jewry from the 19th Century to the present.

JWST 345 The Holocaust of European Jewry (3) Also offered as HIST307. Credit will be granted for only one of the following: JWST345 or HIST307. Roots of Nazi Jewish policy in the 1930s and during World War II; the process of destruction and the implementation of the “final solution of the Jewish problem” in Europe, and the responses made by the Jews to their concentration and annihilation.

JWST 376 Literature of the Holocaust (3) An exploration of the primary texts of the literary canon of the Holocaust: Night by Elie Wiesel, The Diary of Anne Frank, Maus by Art Spiegelman, and other lesser known
works. Exploration of the strategies used by authors of Holocaust narratives to depict a subject matter that has long been considered impossible, and to some extent, unethical to render in a work of art.

**JWST 408 Honors Seminar in Jewish Studies (3)** Prerequisite: permission of department. Junior standing. An in-depth exploration of a theme in Jewish history, literature, culture or thought. Course subject and readings will vary from year to year, but will generally cut across periods, locations, or disciplines. Students are expected to engage the course material critically and to use the seminar as an opportunity to develop an independent research agenda.

**JWST 409 Research Seminar in Jewish Studies (3-4)** Prerequisite: two upper-level courses in an appropriate area of Jewish Studies or permission of department. Repeatable to 9 credits if content differs. Formerly JWST 309. A capstone course for Jewish Studies. Guides students through advanced source material and subject matter, research skills, and presentation techniques. A substantive paper based on independent research and analysis is one expected outcome.

**JWST 419 Special Topics in Jewish Studies (3)** Repeatable to 9 credits if content differs.

**JWST 451 Issues in Jewish Ethics and Law (3)** Prerequisite: three credits in philosophy or Jewish studies (excluding Hebrew language), or permission of department. Also offered as PHIL433. Not open to students who have completed PHIL433 or HEBR451. Credit will be granted for only one of the following: PHIL433 or JWST451. Formerly HEBR 451. Philosophical and meta-legal questions concerning the nature of Jewish law and its relation to morality.

**JWST 452 The Golden Age of Jewish Philosophy (3)** Prerequisite: three credits in philosophy or permission of department. Also offered as PHIL417. Not open to students who have completed PHIL417. Credit will be granted for only one of the following: JWST452 or PHIL417. Jewish philosophy from Maimonides in the 12th Century to the expulsion of the Jews from Spain at the end of the 15th Century. Topics include the limitations of human knowledge, creation of the world, foreknowledge and free will, and the existence of God.

**JWST 453 Philosophy of Spinoza (3)** Prerequisite: six credits in philosophy or permission of department. Also offered as PHIL424. Not open to students who have completed PHIL424. Credit will be granted for only one of the following: JWST453 or PHIL424. An investigation of the metaphysical, ethical and political thought of the 17th century philosopher Benedict Spinoza.

**JWST 454 Readings in Medieval Hebrew (3)** Prerequisite: HEBR212 or permission of department. Not open to students who have completed HEBR212. Credit will be granted for only one of the following: JWST454 or HEBR212. Introductory readings in Medieval Hebrew texts. Language of instruction English; all texts in Hebrew.

**JWST 466 Readings in Medieval Hebrew (3)** Prerequisite: HEBR212 or equivalent. Formerly HEBR472. Credit will be granted for only one of the following: HEBR472 or JWST466. Introductory readings in Medieval Hebrew texts. Language of instruction English; all texts in Hebrew.

**JWST 468 Readings in the Hebrew Bible (3)** Prerequisite: HEBR212 or equivalent. Formerly HEBR441 and HEBR442. Not open to students who have completed HEBR441 and HEBR442. Readings in the Hebrew text of the Bible. Emphasis in close reading, grammar analysis, and modern interpretations of the Bible. Language of instruction English; all texts in Hebrew.

**JWST 469 Readings in Rabbinic Hebrew (3)** Prerequisite: HEBR212 or equivalent. Repeatable to 9 credits if content differs. Credit will be granted for only one of the following: HEBR471 or JWST469. Introductory readings in Mishnaic and Talmudic Hebrew texts. Language of instruction English; all texts in Hebrew.

**JWST 471 Modern Hebrew Literature in Translation (3)** An exploration of modern Hebrew prose, poetry, and literary essays written from the 1880s through the present in Europe, Palestine, and Israel. An investigation of the challenges confronting authors such as Mendele Mokher Sforim, Avraham Mapu, Chaim Nahman Bialik, Dvorah Baron, S.Y. Agnon, and David Fogel as they tried to create a contemporary secular literature out of an ancient sacred language. All texts in English translation.

**JWST 491 Judaism and the Construction of Gender (3)** Also offered as WMST491. Credit will be granted for only one of the following: JWST419X, JWST491 or WMST491. Formerly JWST 419X. The study of Jewish culture, religious practice, communal authority, and literature through the frame of such critical categories of analysis as gender, sexuality, masculinity, power, ethics, and the feminine.

**JWST 493 Jewish Women in International Perspective (3)** Prerequisite: one course in Women's Studies, preferably WMST200 or WMST250. Also offered as WMST493. Credit will be granted for only one of the following: JWST493 or WMST493. Using memoirs, essays, poetry, short stories, films, music and the visual arts, course will interrogate what it means/has meant to define oneself as a Jewish woman across lines of difference. Focus is largely on the secular dimensions of Jewish women's lives but will also explore the implications of Jewish law and religious practices for Jewish women. Our perspective will be international, including Ashkenazi and Sephardi women.

**JWST 499 Independent Study in Jewish Studies (1-3)** Prerequisite: permission of department. Repeatable to 6 credits if content differs.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

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<th>Number</th>
<th>Eligibility</th>
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<tr>
<td>000-099</td>
<td>Non-credit course</td>
</tr>
<tr>
<td>100-199</td>
<td>Primarily freshman course</td>
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<tr>
<td>200-299</td>
<td>Primarily sophmore course</td>
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<tr>
<td>300-399</td>
<td>Junior, senior course not acceptable for credit</td>
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<tr>
<td></td>
<td>toward graduate degrees</td>
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<tr>
<td>386-387</td>
<td>Campus-wide internship courses; refer to</td>
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<tr>
<td></td>
<td>information describing Experiential Learning</td>
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<tr>
<td>400-499</td>
<td>Junior, senior course acceptable for credit</td>
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<td></td>
<td>toward some graduate degree</td>
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<tr>
<td>500-599</td>
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<td></td>
<td>Law, Medicine) or post-baccalaureate course</td>
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<tr>
<td>899</td>
<td>Doctoral Dissertation credit</td>
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Use the search box below to view the approved courses.

Select Program:  KNES - Kinesiology

Course Number:  

Search

Courses in "KNES-Kinesiology"

KNES - Kinesiology

KNES 182 Rhythmic Activities (2) Six hours of laboratory per week. Development of rhythmic sensitivity through analysis of rhythm and its application to movement, skills in folk, square and social dance and teaching techniques for use in schools and recreational programs.

KNES 183 Movement Content for Elementary School Children (3) Participation in movement activities with a focus on educational dance, gymnastics and games. Observation and analysis of movement behavior in relation to specific aspects of movement. Examination of relationships among movement forms.

KNES 190 Personal Fitness and Wellness (2) One hour of lecture and two hours of laboratory per week.
For KNES and Physical Education Majors Only. Scientific principles, concepts, and techniques designing personal fitness and/or physical activity programs.

**KNES 200 Introduction to Kinesiology (3)** Two hours of lecture and one hour of discussion/recitation per week. Restricted to freshmen KNES majors or non-majors with less than 60 credits. Not open to non-major students who have completed over 60 credits. Credit will be granted for only one of the following: KNES200 or KNES289M. Formerly KNES 289M. An overview of kinesiology, the interdisciplinary study of physical activity. Examines human motor behavior and its cultural forms such as sport from the physiological, psychological, sociological, historical, philosophical, and biomechanical perspectives.

**KNES 218 Laboratory in Teaching (1)** Prerequisite: permission of department. Repeatable to 2 credits. The course is designed to prepare the student for the student teaching experience by assisting in a class.

**KNES 240 Exploring Cultural Diversity Through Movement (3)** Cultural diversity through an analysis of the different meanings that movement activities serve within different cultural groups. Students will examine how cultural affiliations can influence why and how members of different cultural groups engage in movement activities.

**KNES 245 Methods of Teaching Physical Education (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: KNES183. Not open to students who have completed KNES314. Credit will be granted for only one of the following: KNES245 or KNES314. Pedagogical methods for teaching children and adolescents using direct and indirect styles and strategies. Application of educational philosophy and psychology principles to instruction, class organization and management in physical education.

**KNES 260 Science of Physical Activity and Cardiovascular Health (3)** Course details (1) the public health importance of and the processes underlying cardiovascular disease, (2) the risk factors for cardiovascular disease and the methods whereby they were identified, and (3) the principles of the scientific evidence supporting the use of physical activity to prevent cardiovascular disease.

**KNES 282 Basic Care and Prevention of Athletic Injuries (3)** Credit will be granted for only one of the following: KNES282 or KNES381. Formerly KNES 381. Theoretical and practical foundations of the prevention, treatment and rehabilitation of athletically related injuries. Topics include: physical conditioning, preventive taping, recognition of injuries, first aid and CPR.

**KNES 287 Sport and American Society (3)** Sport will be related to such social problems as delinquency, segregation, collective behavior, and leisure; to social processes such as socialization, stratification, mobility, and social control; and to those familiar social institutions the family, the school, the church, the military, the economy, the polity, and the mass media.

**KNES 289 Topical Investigations (1-6)** Repeatable to 6 credits. Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

**KNES 290 Teaching Physical Activity & Fitness Concepts (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: KNES190. Teaching practices for physical activity and fitness concepts appropriate for children and adolescents in school and recreational programs. Pedagogical methods, strategies, styles, and techniques that encourage program participation.

**KNES 291 Teaching for Sequential Skill Development (3)** Two hours of lecture and two hours of laboratory per week. Corequisite: KNES370. Introduction to motor skill teaching from novice to advanced performer. Techniques and technologies used in skill analysis, correction and feedback to enhance and assess performance.

**KNES 292 Teaching Game Concepts and Tactics (3)** Two hours of lecture and two hours of laboratory per week. Teaching progressions for game concepts and tactics. Sequential development of temporal and spatial concepts through progressively more complex offensive and defensive strategies.

**KNES 293 History of Sport in America (3)** The growth and development of sport in America. The transformation of sport within the perspective of American history, including class sport, professionalization, amateurism, and international involvement.

**KNES 300 Biomechanics of Human Motion (4)** Three hours of lecture and two hours of laboratory per week. Prerequisite: BSCI201. The study of human movement and the physical and physiological principles upon which it depends. Body mechanics, posture, motor efficiency, sports, the performance of a typical individual and the influence of growth and development upon motor performance.

**KNES 333 Physical Activity for Students with Special Needs (3)** Implications of Federal and State regulations for planning and implementing physical activity programs for students with special needs. Evaluation strategies for assessing motor performance and the role of physical activity in educational programs for these students.
**KNES 335 Swimming Pool Management (2)** Analysis of the position of the swimming pool manager. The systematic treatment of swimming pool water; swimming pool first aid; and laws pertaining to swimming pool operation. Qualifies the student for a pool operator's license in most Maryland counties.

**KNES 340 Theory of Coaching Athletics (2)** General theory and practice of coaching selected competitive sports found in secondary schools and community recreation programs.

**KNES 350 The Psychology of Sports (3)** An exploration of personality factors, including but not limited to motivation, aggression and emotion, as they affect sports participation and motor skill performance.

**KNES 351 Contemporary Issues in American Sport (3)** Prerequisite: KNES287. Seminar/discussion of theoretical and practical issues in contemporary sport.

**KNES 355 Sport Management (3)** Prerequisite: KNES287. Junior standing. Credit will be granted for only one of the following: KNES355 or KNES498M. Formerly KNES 498M. Application of concepts and issues related to management principles and business concerns across various sections of the sport industry. Principles pertaining to the management of sport organizations.

**KNES 357 Sport and Culture in the Global Marketplace (3)** Two hours of lecture and three hours of discussion/recitation per week. Prerequisite: KNES287 or permission of department. Credit will be granted for only one of the following: KNES357 and KNES389A. Formerly KNES 389A. Through study abroad experience, critically appraise similarities and differences in the management, production, meaning, promotion and consumption of sport and culture in the global marketplace.

**KNES 360 Physiology of Exercise (3)** Two hours of lecture and two hours of laboratory per week. Prerequisites: {BSCI201; and BSCI202}; or permission of department. A study of the physiology of exercise, including concepts of work, muscular contraction, energy transformation, metabolism, oxygen debt, and nutrition and athletic performance. Emphasis on cardiovascular and respiratory function in relation to physical activity and training.

**KNES 370 Motor Development (3)** Motor development across the life span. The developmental sequences of motor skills from birth to old age; neuromaturation of neuromuscular system; analysis of the underlying mechanisms of motor skill development; and correlates of motor development.

**KNES 371 Elementary School Physical Education: A Movement Approach (3)** Prerequisites: KNES183 and KNES370. Formerly KNES 421. An analysis of movement philosophy and content, focusing upon cognitive, psychomotor and affective developmental characteristics in relation to progression and planning of games, educational dance and educational gymnastics for elementary school age children.

**KNES 382 Advanced Care and Prevention of Athletic Injuries (3)** Prerequisites: BSCI201 and BSCI202 and KNES282. Advanced theoretical and practical foundations of the prevention, treatment and rehabilitation of athletically related injuries. This course is required for the student seeking NATA certification.

**KNES 385 Motor Control and Learning (3)** Physiological and cognitive bases for motor control and their applications to the acquisition of movement skills and understanding of movement disorders. Topics include: neurophysiology, motor control theory, sensory/perceptual processes, perception-action coupling, information processing, memory, attention, individual differences, motivation, practice organization and role of feedback.

**KNES 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by faculty sponsor, and student's internship sponsor. Junior standing.

**KNES 389 Topical Investigations (1-3)** Repeatable to 6 credits. Independent study by an individual student or a group of students in special areas of knowledge not covered by regularly scheduled courses.

**KNES 390 Practicum/Internship in Teaching Physical Education (3)** One hour of lecture and four hours of laboratory per week. Corequisite: KNES491. Teaching of children in a physical education setting. Specific emphasis on the development of a professional portfolio demonstrating understanding of curriculum development, lesson planning, progressions and evaluation of teaching performance.

**KNES 398 Honors Seminar (1)** One hour of discussion/recitation per week. Prerequisite: participation in honors program. Repeatable to 3 credits. Guided discussion of research topics of current interest.

**KNES 399 Honors Thesis (3)** Prerequisites: KNES398H; and candidacy for honors in Kinesiology. Advisement will be on the individual basis. Thesis must be defended in the honors seminar.

**KNES 402 Biomechanics of Sport (3)** Prerequisite: KNES300. Mechanical determinants influencing sport techniques. A quantitative, scientific basis for sport analysis with emphasis on the application to numerous sport activities. Evaluation and quantification of the filmed performance of athletes.
KNES 451 Children and Sport: A Psychosocial Perspective (3) Prerequisite: KNES350 and junior standing. Examination of youth sports from a psychosocial perspective, including the impact of highly structured sports on young athletes and the complex social network of coaches, parents and peers.

KNES 455 Scientific Bases of Athletic Conditioning (3) Prerequisite: KNES360. An examination of physical fitness/athletic conditioning programs stressing the practical application of exercise physiology theory for enhancing athletic performance. Cardiovascular considerations, strength and power development, nutrition, speed, muscular endurance, environmental considerations and ergogenic aids.

KNES 461 Exercise and Body Composition (3) Prerequisite: KNES360. Physiological concepts relating body composition factors to exercise and human performance. The scientific basis for the establishment and evaluation of conditioning programs where body composition may play an important role, such as weight control and athletics.

KNES 462 Neural Basis of Human Movement (3) Prerequisites: {BSCI201; and BSCI202; and KNES385} or permission of department. An introduction to the neural substrates which underlie postural and volitional movement. Neuroanatomical and neurophysiological basis of motor functioning; past and present conceptualizations of motor control and coordination; movement disorders; and maturation of the neuromuscular system.

KNES 466 Graded Exercise Testing (3) Two hours of lecture and three hours of laboratory per week. Prerequisite: KNES360 or permission of department. Functional and diagnostic examination of the cardiovascular responses to graded exercise testing. Emphasis on electrophysiology, mechanisms of arrhythmias, normal electrical activation of the heart, axis termination and the normal 12-lead electrocardiogram.

KNES 467 Genetics in Physical Activity and Sport (3) Prerequisite: KNES360. Corequisite: STAT100 or equivalent. Junior standing. Credit will be granted for only one of the following: KNES467 or KNES498Q. Formerly KNES 498Q. Dedicated to understanding the role of genetics in kinesiology, especially within the contexts of physical activity and sport. Specific genes and phenotypes will be explored.

KNES 470 Seminar For Student Teachers (2) A seminar held concurrently with student teaching in physical education. An intensive examination of current problems and issues in teaching physical education.

KNES 476 Honors Thesis Proposal (3) Restricted to KNES Honors students only. Corequisite: KNES478. Senior standing. Credit will be granted for only one of the following: KNES498R or KNES476. Formerly KNES 498R. Development of honors thesis proposal based on preliminary research and literature review. Presentation of formal proposal to the thesis committee and fellow honors students.

KNES 477 Honors Thesis (3) Restricted to KNES Honors students only. Prerequisite: KNES476. Corequisite: KNES478. Senior standing. Credit will be granted for only one of the following: KNES399 or KNES477. Formerly KNES 399. Advisement will be on the individual basis. Thesis must be defended in the honors seminar.

KNES 478 Honors Seminar (1-3) Restricted to KNES Honors students only. Junior standing. Repeatable to 4 credits if content differs. Credit will be granted for only one of the following: KNES398 or KNES478. Formerly KNES 398. Guided discussion of research topics of current interest.

KNES 480 Measurement in Physical Education (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: MATH110. A study of the principles and techniques of educational measurement as applied to the teaching of physical education; study of the functions and techniques of measurement in the evaluation of student progress toward the objectives of physical education and in the evaluation of the effectiveness of teaching.

KNES 481 Biophysical Aspects of Human Movement (3) Prerequisites: KNES300; and KNES360; and KNES370; and KNES385. Scientific principles and research techniques in the investigation of the biophysical basis of human movement.

KNES 482 Socio-behavioral Aspects of Human Movement (3) Prerequisites: KNES287; and KNES293; and KNES350. Derivation, formulation, and application of research in the socio-behavioral aspects of human movement.

KNES 483 Sport Marketing and Media (3) Prerequisite: KNES287. Junior standing. Not open to students who have completed KNES498L prior to the Fall 2001 semester. Industry practices in sport marketing and media. Marketing strategies and consumer behavior in different sport contexts. Critical examination of selected social and economic issues related to the buying and selling of sport.

KNES 484 Sporting Hollywood (3) Prerequisite: KNES287 and KNES293. Junior standing. Credit will be granted for only one of the following: KNES484 and KNES498N. Formerly KNES 498N. Popular representations of sport within the film media related to wider social discourses on bodies and the politics of various categories of subjectivity (gender, sexual, racial, class and national).
KNES 485 Sport and Globalization (3) Two hours of lecture and two hours of discussion/recitation per week. Prerequisite: KNES287. Junior standing. Credit will be granted for only one of the following: KNES485 and KNES498T. Formerly KNES 498T. Examination of sport culture from a global perspective; focuses on theorizing the similarities and differences between various national sporting cultures.

KNES 486 Politics and Economics of Organized Contemporary Sport (3) Prerequisite: KNES287. Interdependence of sport, politics, and economics. The structure, organization, and uses of sport in contemporary societies.

KNES 489 Field Laboratory Projects and Workshop (1-6) Repeatable to 6 credits. Workshops and research projects in special areas of knowledge not covered by regularly structured courses.

KNES 491 The Curriculum in Physical Education (3) Prerequisites: KNES300, KNES360, and KNES371. Curriculum sources, principles, and planning concepts, with emphasis on using valid criteria for the selection of content for physical education programs.

KNES 492 History of the Sportswoman in American Organizations (3) Prerequisite: KNES293. Also offered as WMST492. Credit will be granted for only one of the following: KNES492 or WMST492. Women's involvement in and contributions to America's sporting culture, especially in the 19th and 20th Centuries until enactment of Title IX. The interactions among historical perceptions of women's roles, responsibilities, and potential and their sporting lives; the effects of role stereotyping and opportunities for and directions taken in developing sport organizations. Other issues affecting women's involvement in institutional sport.

KNES 496 Quantitative Methods (3) Statistical techniques most frequently used in research pertaining to physical education. Effort is made to provide the student with the necessary skills and to acquaint the student with the interpretations and applications of these techniques.

KNES 497 Independent Studies Seminar (3) Prerequisite: ENGL391, ENGL393, ENGL394, or ENGL395; and STAT100 or equivalent. 100 semester hours. Senior standing. For KNES majors only. Discussions of contemporary issues vital to the discipline, critiques of research in the student's area/areas of special interest, completion of a major project where the student will be asked to demonstrate the ability to carry out investigative processes in problem solving and critical writing under faculty direction.

KNES 498 Special Topics in Kinesiology (3) Prerequisite: permission of department. Repeatable when the subject matter is different. Topics of special interest in areas not covered by regularly scheduled courses.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Courses in "KORA-Korean"

**KORA - Korean**

**KORA 101 Elementary Korean I (3)** Prerequisite: permission of department. For non-Heritage students with no background in Korean. Introduction to the Korean language. Primary emphasis on oral skills, but Hangul, the Korean alphabet, will also be introduced.

**KORA 102 Elementary Korean II (3)** Prerequisite: KORA101 or equivalent. For non-Heritage students only. Instructor permission required for new students. Continued training in elementary spoken and written Korean.

**KORA 201 Intermediate Korean I (3)** Prerequisite: KORA102 or permission of instructor. An intermediate-level course designed for non-Heritage students. It begins the second year of instruction in the University's...
two-track Korean Program.

**KORA 202 Intermediate Korean II (3)** Prerequisite: KORA201 or permission of instructor. The second stage of an intermediate-level course designed for non-Heritage students. It continues the second year of instruction in the University's two track Korean Program.

**KORA 211 Introductory Reading for Speakers of Korean I (3)** Not open to students who have completed two or more years of schooling in Korea. Designed to improve the language skills of students already conversant in Korean; instruction entirely in Korean; introduction in hangul; reading and writing of simple journal entries.

**KORA 212 Introductory Reading for Speakers of Korean II (3)** Prerequisite: KORA211. Not open to students who have completed four or more years of schooling in Korea. Continuation of KORA211; grammar, style, usage, and vocabulary of written Korean.

**KORA 241 History of the Korean Language (3)** The origins of the Korean language and its development from earliest recorded times to the present. The relationship of Korean to other languages. In English.

**KORA 242 Introduction to Korean Linguistics (3)** An introduction to the sound system and grammatical structure of the modern Korean language; Korean writing and orthography; Korean language and society, with an emphasis on speech styles. In English.

**KORA 311 Korean for Heritage Speakers, Advanced-Low I (3)** Prerequisite: KORA212 or permission of instructor. Not open to students who have completed six or more years of schooling in Korea. Begins the second year of Heritage-language instruction in the University's two-track Korean Program.

**KORA 312 Korean for Heritage Speakers, Advanced-Low II (3)** Prerequisite: KORA311 or permission of instructor. Not open to students who have completed eight or more years of schooling in Korea. Concludes the second year of the Heritage-language instruction in the University's two-track Korean Program.

**KORA 499 Independent Study Korean (1-3)** Prerequisite: permission of instructor. Repeatable to 6 credits if content differs. Independent study under faculty supervision.

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Chapter 8: Approved Courses

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Select Program: LARC - Landscape Architecture
Course Number: 

Courses in "LARC-Landscape Architecture"

LARC - Landscape Architecture

LARC 120 Digital Fundamentals (2) Prerequisite: permission of LARC program. For LARC majors only. Not open to students who have completed LARC489A. Credit will be granted for only one of the following: LARC120 or LARC489A. Formerly LARC 489A. An introduction to fundamental computer tools and techniques commonly used in design communication and landscape architecture practice. Non-drafting computer tools will be used to orient basic digital image capture, manipulation, and presentation formatting.

LARC 140 Graphic Fundamentals Studio (4) Two hours of lecture and four hours of laboratory per week. Prerequisite: permission of LARC program. Recommended: LARC160 (concurrently). For LARC majors only. Basic techniques and application of various media for graphic communication associated with landscape architecture.
LARC 141 Design Fundamentals Studio (4) Two hours of lecture and four hours of laboratory per week. Prerequisite: LARC140 and permission of LARC program. Recommended: LARC263 (concurrently). Sophomore standing. For LARC majors only. Fundamentals of basic design focusing on creative problem solving associated with landscape architecture.

LARC 160 Introduction to Landscape Architecture (3) Two hours of lecture and one hour of discussion/recitation per week. History, theory, philosophy and current practice of the profession of landscape architecture. Explores the interactive relationship between humans and their environment by examining people's perceptions of and changing attitude towards the landscape, as well as, an examination of how these are related to ecological and cultural influences.

LARC 221 Digital Design Tools (3) Prerequisite: LARC120 and LARC141. Recommended: LARC240 and LARC265. Sophomore standing. For LARC majors only. The development and application of computing skills as used by the landscape architecture profession. This Computer-Aided Design and Drafting (CADD) course develops computer drafting using a variety of software programs. It also introduces students to Geographic Information Systems (GIS) mapping technologies.

LARC 240 Graphic Communication and Design Studio (4) Two hours of lecture and four hours of laboratory per week. Prerequisites: LARC141 and LARC263. Corequisites: LARC221 and LARC265. Sophomore standing. For LARC majors only. Exploration of graphic presentation techniques and original concept development for landscape architecture planning and design.

LARC 263 History of Landscape Architecture (3) A survey of landscape architecture history from the ancient Western civilizations to the twentieth century with consideration of parallel developments in the Eastern World, European Africa and the Americas.

LARC 265 Site Analysis and Ecological Principles (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: LARC141 and Permission of LARC program. Corequisite: LARC240 and LARC221. Sophomore standing. For LARC majors only. Credit will be granted for only one of the following: LARC265 or ARCH460. Principles and methods of site analysis with an emphasis on the application of ecological principles in landscape architecture, architecture and planning.

LARC 320 Principles of Site Engineering (3) Two hours of lecture and four hours of laboratory per week. Prerequisites: LARC221 and permission of LARC program. Corequisite: LARC340. Junior standing. For LARC majors only. Also offered as PLSC320. Formerly LARC 364. The study and application of landscape construction principles as applied to grading, drainage, site layout, storm water management, and vehicular and pedestrian circulation.

LARC 321 Landscape Structures and Materials (3) Two hours of lecture and four hours of laboratory per week. Prerequisites: LARC320 and LARC340. For LARC majors only. An examination of the use, properties, and detailing of materials used in landscape construction. The use and design of structures in the landscape.

LARC 340 Site Planning and Design Studio (5) Two hours of lecture and six hours of laboratory per week. Prerequisites: LARC221, LARC240, and LARC265. Corequisite: LARC320. Junior standing. For LARC majors only. An examination of the influence of landscape character and site features (natural and cultural) on landscape architecture, architecture and planning through application in the studio setting.

LARC 341 Regional Design Studio (5) Two hours of lecture and six hours of laboratory per week. Prerequisites: LARC320 and LARC340. Junior standing. For LARC majors only. An examination of the landscape architect's role within the interdisciplinary regional design field incorporating GIS technologies, spatial modeling, and the regional design process.

LARC 388 Honors Thesis Research (3-6) Prerequisite: admission to AGNR Honors Program. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

LARC 389 Internship in Landscape Architecture (3) Prerequisites: LARC221, LARC240, and LARC265. Junior standing. For LARC majors only. Repeatable to 6 credits. A supervised internship where students earn credit for work experience related to their career goals. Each student must keep a work log, work on a special project, and produce a report related to this project. An evaluation from the external supervisor of the project is required. Participation requires application to the internship advisor in the preceding semester.

LARC 398 Seminar (1)

LARC 420 Professional Practice (3) Prerequisite: LARC321. For LARC majors only. An introduction to and comparative study of the professional concerns of design firms. Focus on planning, legal, ethical, marketing and management considerations of interdisciplinary practices.

LARC 440 Urban Studio Design (5) Two hours of lecture and six hours of laboratory per week. Prerequisites: LARC321, LARC340, and LARC341. For LARC majors only. The landscape architect's role within
the interdisciplinary urban design process, focusing on urban site design issues. Pedestrian friendly site
design and the future of sustainable development will be studied.

LARC 450 Environmental Resources (3) Prerequisite: ENST200 or permission of department. A review of
ecosystems and an examination of planning strategies for preservation, conservation, management and
development of sensitive natural and cultural landscape resources in the mid-Atlantic region.

LARC 451 Sustainable Communities (3) Explores concepts, strategies and examples of community design
which address the needs of a growing population while preserving the environment and its resources.

LARC 460 Landscape and Identity: Placemaking Across World Cultures (3) Prerequisite: LARC240 or
permission of department. Junior standing. Not open to students who have completed LARC489P. Credit will
be granted for only one of the following: LARC460 or LARC489P. Formerly LARC 489P. A cross cultural
experience that emphasizes the integration of cultural diversity, individual identity and placemaking skills
introduced through the landscape architecture curriculum. Explores the landscape as intimately connected to
their individual selves and to the collective sense of community. Examines how the mixture of social-cultural
systems, on a global scale, impacts the way we shape our built environment. Investigates these phenomena
theoretically and analytically through team and individual projects, lectures, films, discussions and
presentations.

LARC 470 Landscape Architecture Seminar (3) Two hours of lecture and one hour of
discussion/recitation per week. Prerequisites: LARC321 and LARC341. Corequisite: LARC440. Senior standing.
For LARC majors only. A combination of self-directed study, seminar, and lecture formats. An introduction to
aspects of research methods, critical analysis, and proposal writing with a focus on urban and community
design.

LARC 471 Capstone Studio: Community Design (5) Two hours of lecture and six hours of laboratory per
week. Prerequisites: LARC440 and LARC470. Senior standing. For LARC majors only. A capstone experience
that emphasizes the integration of critical thinking skills and methodologies introduced throughout the
landscape architecture curriculum. Students apply design and analysis methodologies, evaluate alternative
solutions, involve community residents and engage in final design development, using the master plan and
site design process, report writing, and oral and graphic presentations. Final presentations are open to the
university and the community.

LARC 489 Special Topics in Landscape Architecture (1-4) Prerequisite: permission of department.
Repeatable to 4 credits if content differs. Credit according to time scheduled and organization of course. A
lecture and/or studio course organized as an in-depth study of a selected specialization of landscape
architecture not covered by existing courses.

LARC 499 Independent Studies in Landscape Architecture (1-4) Prerequisite: 12 credits in LARC or
permission of department. For LARC and NRSC majors only. Repeatable to 4 credits if content differs.
Independent studies in landscape architecture including field, studio or library research under the direction of
a faculty member.

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Use the search box below to view the approved courses.

Select Program: LASC - Certificate in Latin American Studies

Course Number: Search

Courses in "LASC-Certificate in Latin American Studies"

LASC 234 Issues in Latin American Studies I (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as SPAN234 and PORT234. Credit will be granted for only one of the following: LASC234 or SPAN234 or PORT234. Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions.

LASC 235 Issues in Latin American Studies II (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as SPAN235 and PORT235. Credit will be granted for only one of the following: LASC235 or SPAN235 or PORT235. Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular
cultures and revolutionary practices. A continuation of LASC/PORT/SPAN234, but completion of 234 is not a prerequisite.

**LASC 403 Research and Information Sources in Latin American Studies (1)** Two hours of lecture per week. Corequisite: LASC458; Recommended: LASC234 and LASC235. Senior standing. Also offered as SPAN403. A foundational course in Latin American Studies information sources. Students will devise a search strategy and explore reference materials available to the Latin American Studies researcher.

**LASC 423 Research Sources and Methods in Latin America Studies (3)** Research methodologies in Latin American studies.

**LASC 448 Special Topics in Latin American Studies (3)** Junior standing. Repeatable to 6 credits if content differs. Intensive study of a selected topic related to Latin American Studies.

**LASC 458 Senior Capstone Course in Latin American Studies (3)** Three hours of lecture per week. Prerequisites: LASC234 and LASC235 or permission of department. Recommended: LASC403. Senior standing. For LASC majors only. Also offered as SPAN458. Capstone course for advanced students in the Latin American Studies Certificate Program or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

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Select Program: LATN - Latin

Course Number: Search

Courses in "LATN-Latin"

LATN - Latin

LATN 101 Elementary Latin I (4) Four hours of discussion/recitation per week. A student who has two units of Latin in high school may register for LATN101 for the purposes of review, but ordinarily not for credit.

LATN 102 Elementary Latin II (4) Four hours of discussion/recitation per week. Prerequisite: LATN101 at UMCP or permission of department.

LATN 120 Intensive Latin (4) Prerequisite: permission of department. Not open for credit to students with credit for LATN102. Elements of Latin grammar and vocabulary; elementary reading. The first year’s study of Latin compressed into a single semester.
LATN 201 Intermediate Latin (4) Prerequisite: LATN102 at UMCP or permission of department. Formerly LATN 203.

LATN 220 Intermediate Intensive Latin (4) Prerequisite: LATN102, or LATN120, or equivalent. Review of Latin grammar; reading in prose and poetry from selected authors.

LATN 301 Plautus (3) Plautine drama. Literary, linguistic and socio-cultural aspects.

LATN 302 Ovid (3) Major works of Ovidian poetry. Literary and moral atmosphere of Augustan age.

LATN 303 Petronius (3) Reading and analysis of Petronius' Satyricon with an emphasis on the literary climate of the Neronian Age and on the emergence of the novel as a literary genre.

LATN 304 Cicero and Sallust (3) Prerequisite: LATN201 or equivalent. Selected speeches of Cicero and selections from the historian Sallust. Rhetorical, social and political context. Readings will be in Latin.

LATN 351 Horace and Catullus (3) Prerequisite: LATN201 or equivalent.

LATN 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

LATN 402 Tacitus (3)

LATN 403 Roman Satire (3)

LATN 405 Lucretius (3)

LATN 410 Latin Historians (3) Latin historical writing as a literary genre. Influences, style, and literary techniques.

LATN 415 Vergil's Aeneid (3) Formerly LATN 305. Vergil's Aeneid: readings of selections in Latin and of the entire epic in English translation along with critical essays.

LATN 420 Cicero and Caesar (3) Reading and analysis of texts by M. Tullius Cicero and C. Iulius Caesar, with emphasis on the relationships between them and on the period of the Civil War.

LATN 424 Silver Age Latin (3) Reading and analysis of selected texts. Emphasis on the role of Nero and Seneca in literary developments.

LATN 472 Historical Development of the Latin Language (3) Credit will be granted for only one of the following: LATN472 or LING431. An analysis of the development of the Latin language from archaic times to the Middle Ages.

LATN 488 Latin Readings (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. The reading of one or more selected Latin authors from antiquity through the Renaissance. Reports.

LATN 499 Independent Study in Latin Language and Literature (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs.

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Select Program: LBSC - Library Science

Course Number:  

Search

Courses in "LBSC-Library Science"

**LBSC - Library Science**

**LBSC 208 Special Topics in Information Studies (3)** Repeatable to 6 credits if content differs. Special topics in aspects of information use, technology, and policy.

**LBSC 386 Experiential Learning (3-6)** Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

**LBSC 488 Recent Trends and Issues in Library and Information Services (1-3)** Repeatable to 9 credits. Discussions of recent trends and issues in library and information services. Designed for practicing professionals.
LBSC 499 Workshops, Clinics, and Institutes (1-9) Repeatable to 9 credits. Workshops, clinics, and institutes developed around specific topics or problems. Primarily for practicing librarians.

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600-899 Course restricted to graduate students
799 Master Thesis credit
899 Doctoral Dissertation credit

Use the search box below to view the approved courses.

Select Program: LGBT - Lesbian Gay Bisexual Transgender Studies

Course Number:

Search

Courses in "LGBT-Lesbian Gay Bisexual Transgender Studies"

LGBT - Lesbian Gay Bisexual Transgender Studies

LGBT 200 Introduction to Lesbian, Gay, Bisexual, and Transgender Studies (3) Not open to students who have completed WMST298E. Credit will be granted for only one of the following: LGBT200 or WMST298E. Formerly WMST 298E. An interdisciplinary study of the historical and social contexts of personal, cultural and political aspects of LGBT life. Sources from a variety of fields, such as anthropology, history, psychology, sociology, and women's studies, focusing on writings by and about LGBT people.

LGBT 291 International Perspectives on Lesbian and Gay Studies (3) Also offered as CMLT291. Not open to students who have completed CMLT291. Credit will be granted for only one of the following: CMLT291 or LGBT291. Exploration of the construction and representation of sexualities in culture around the globe, with particular emphasis on literature and media.
LGBT 298 Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies (3) Repeatable to 9 credits if content differs. Study of particular themes and issues in LGBT studies.

LGBT 327 Lesbian, Gay, Bisexual, and Transgender Studies Film and Video (3) Junior standing. Comparative analysis of forms, themes, and the politics of representation in film and video by and/or about LGBT people.

LGBT 350 Lesbian, Gay, Bisexual, and Transgender People and Communication (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: LGBT200 (formerly: WMST298E) and permission of program. Study of differences, stereotypes, and values distinguishing LGBT people and of effective means of communicating such differences to non-LGBT people. Emphasis on contemporary LGBT life and on the development of didactic skills. Preparation and presentation of forums on LGBT people; facilitation of workshops in various outreach locations (residence halls, Greek system, classes).

LGBT 359 Special Topics in Lesbian, Gay, Bisexual, and Transgender Literatures (3) Prerequisite: Two lower-level English courses, at least one in literature. Repeatable to 9 credits if content differs. Also offered as ENGL359. Study of selected writers or particular themes in Lesbian, Gay Bisexual, and Transgender literatures.

LGBT 386 Lesbian, Gay, Bisexual, and Transgender Community Organization (3-6) Internship Prerequisite: 9 credits in LGBT studies and permission of program. Supervised internship experience with a community organization that expressly serves lesbian, gay, bisexual, and transgender people. Students will be expected to relate course material to experience in an analysis of an organization's activities.

LGBT 407 Gay and Lesbian Philosophy (3) Also offered as PHIL407. Not open to students who have completed PHIL407. Credit will be granted for only one of the following: PHIL407 or LGBT407. An examination in historical and social context of personal, cultural, and political aspects of gay and lesbian life, paying particular attention to conceptual, ontological, epistemological, and social justice issues.

LGBT 448 Special Topics in Lesbian, Gay, Bisexual, and Transgender Studies (3) Prerequisite: LGBT200 or permission of program. Junior standing. Repeatable to 9 credits if content differs. In-depth study of particular themes and issues in LGBT studies.

LGBT 459 Selected Topics in Sexuality and Literature (3) Three hours of lecture per week. Prerequisite: two lower-level English courses, at least one in literature. Repeatable to 9 credits if content differs. Also offered as ENGL459. Detailed study of sexuality as an aspect of literary and cultural expression.

LGBT 465 Theories of Sexuality and Literature (3) Three hours of lecture per week. Prerequisite: two lower-level English courses, at least one in literature. Also offered as ENGL465. Not open to students who have completed ENGL465. Credit will be granted for only one of the following: ENGL465 or LGBT465. An in-depth study of the ways in which sexuality and sexual difference create or confound the conditions of meaning in the production of literary texts. Attention to psychoanalysis, history of sexuality, feminist theory, and other accounts of sexual identity.

LGBT 488 Seminar in Lesbian, Gay, Bisexual, and Transgender Studies (1-3) Prerequisites: 9 credits in LGBT Studies and permission of program. Recommended: LGBT200 and ENGL265 or CMLT291. Repeatable to 9 credits if content differs. Not open to students who have completed CMLT498Y. Formerly CMLT 498Y. Developments in theories and methods of LGBT Studies, with emphasis upon interaction between the humanities and the social sciences in the elaboration of this interdisciplinary area of scholarship.

LGBT 494 Lesbian Communities and Differences (3) Prerequisite: One course in Women's Studies, preferably WMST200. Also offered as WMST494. Not open to students who have completed WMST494. Credit will be granted for only one of the following: WMST494 or LGBT494. The meanings of lesbian communities across many lines of difference, using lesbian feminists of the 1970s as a starting point, we will look both back and forward in history, tracing changes and exploring the meanings of these in their social and historical contexts.

LGBT 499 Independent Study (1-3) Prerequisite: LGBT200 and permission of department. Senior standing. Repeatable to 6 credits if content differs. Directed research and analysis in LGBT Studies on a topic selected by the student.
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<td>500-599</td>
<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
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<td>Master Thesis credit</td>
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<td>899</td>
<td>Doctoral Dissertation credit</td>
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Use the search box below to view the approved courses.

Select Program: LING - Linguistics

Course Number: [Search]

Courses in "LING-Linguistics"

LING - Linguistics

LING 200 Introductory Linguistics (3) Not open to students who have completed ANTH371 or HESP120. Ways of studying human language; basic concepts of modern linguistic analysis (sound systems, word formation, syntax, meaning). The nature of human language; the social aspects of language; language change; dialects; writing systems; language universals, etc.

LING 210 Structure of American Sign Language (3) Overview of phonology, morphology and syntax of American Sign Language. History of the language and the unique social, political and linguistic situation of the deaf.
LING 240 Language and Mind (3) The study of language as a cognitive phenomenon. Ways of representing people's knowledge of their native language, ways in which that knowledge is attained naturally by children, and how it is used in speaking and listening. Relevant philosophical literature. Relationship to study of other cognitive abilities: reasoning, perception, sensory-motor development.

LING 311 Syntax I (3) Prerequisite: LING240. Basic concepts, analytical techniques of generative syntax, relation to empirical limits imposed by viewing grammars as representations of a component of human mind. Aspects of current theories.


LING 321 Phonology I (3) Prerequisite: LING240. Properties of sound systems of human languages, basic concepts and analytical techniques of generative phonology. Empirical limits imposed by viewing grammars as cognitive representations. Physiological properties and phonological systems; articulatory phonetics and distinctive feature theory.

LING 322 Phonology II (3) Prerequisite: LING321. Continuation of LING321. Further investigation of phonological phenomena and phonological theory. Revising and elaborating the theory of the phonological representation; interaction of phonology and morphology.

LING 330 Historical Linguistics (3) A traditional presentation of language change. Language types and families, sounds and writing systems, grammatical categories. Reconstruction of proto-languages by internal and comparative methods.

LING 350 Philosophy of Language (3) Prerequisite: PHIL170 or PHIL173 or PHIL371; or LING311. The nature and function of language and other forms of symbolism from a philosophical perspective.

LING 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

LING 410 Grammar and Meaning (3) Prerequisite: LING 311 or permission of instructor. The basic notions of semantic theory: reference, quantification, scope relations, compositionality, thematic relations, tense and time, etc. The role these notions play in grammars of natural languages. Properties of logical form and relationship with syntax.

LING 411 Comparative Syntax (3) Prerequisite: LING312. Comparison of data from a variety of languages with respect to some aspect of current versions of syntactic theory in order to investigate how parameters of universal grammar are fixed differently in different languages. Attempts to work out fragments of grammars for some languages.

LING 419 Topics in Syntax (3) Repeatable to 12 credits if content differs.

LING 420 Word Formation (3) Prerequisite: LING322. Definition of shape and meaning of possible words, both across languages and within particular languages. Interaction between principles of word formation and other components of a grammar: syntax, logical form and phonology.

LING 421 Advanced Phonology (3) Prerequisite: LING322. Topics in current phonological theory, as they relate to data from the sound systems of various languages. Segmental and prosodic analysis. Discussion of autosegmental theory, metrical theory, etc.

LING 429 Topics in Phonology (3) Repeatable to 6 credits if content differs.

LING 430 Language Change (3) Prerequisite: LING240. Changes in grammars from generation to generation. Consequences for the theory of grammars. Traditional work on historical change.

LING 439 Topics in Diachronic Linguistics (3) Repeatable to 6 credits if content differs.

LING 440 Grammars and Cognition (3) Relationship between the structure, development and functioning of grammars and the structure, development and functioning of other mental systems. Interpretations of experimental and observational work on children's language, aphasia, speech production and comprehension.

LING 443 Programming for Linguistics (3) Prerequisite: permission of department. A one-semester introduction to computer programming, geared for linguists and others who are not computer scientists. Not intended for students who already have significant programming experience.

LING 444 Child Language (3) Prerequisite: LING200 or LING240. Examines children's language
development from the perspective of Chomsky's 'Universal Grammar'. Evaluates which parts of children's knowledge are innate, and which parts are learned from the environment. This issue motivates discussion of a variety of topics including children's knowledge of the lexicon and word meaning, grammatical structure, and semantics.

LING 451 Grammars and Variation (3) Prerequisite: LING311. Grammars and the use of language in a variety of styles: formal, casual, literary, etc. Consequences for concepts of grammars. Variation theory. Literary styles.

LING 453 Mathematical Approaches to Language (3) Prerequisite: LING312. The aspects of mathematics used in linguistic discussions: recursion theory, Chomsky's hierarchy of grammars, set theory, Boolean algebra, finite state grammars, context-free grammars, etc. Applications to theories of grammars. Formalizations of grammatical theories.

LING 455 Second Language Acquisition (3) Prerequisite: LING311. Examines second language acquisition from the perspective of Chomsky's 'Universal Grammar'. Relationship between theories of grammars, first language acquisition by children and the learning of second languages by adults.

LING 460 Diversity and Unity in Human Languages (3) Fundamentals of grammatical typology as they relate to issues in social attitudes towards language. Linguistic structure of standard and non-standard languages and dialects. Relationship of different writing systems to linguistic structure. Issues in bilingualism and multilingualism.

LING 487 Computer Science for Cognitive Studies (3) Also offered as PHIL487. Credit will be granted for only one of the following: LING487 or PHIL487. List processing and discrete mathematics. Preparation for the study of artificial intelligence and other mathematically oriented branches of cognitive studies. Intended for students of linguistics, philosophy, and psychology. LISP computer language, graphs and trees, the concept of computational complexity, search algorithms.

LING 499 Directed Studies in Linguistics (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Independent study or research on language under the supervision of a faculty member.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

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<tr>
<th>Number</th>
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Use the search box below to view the approved courses.

Select Program: MATH - Mathematics

Course Number: Search

Courses in "MATH-Mathematics"

MATH - Mathematics

MATH 003 Developmental Mathematics (3) Six hours of laboratory per week. Recommended: for students who plan to take MATH110, MATH111, MATH113, MATH115 or STAT100, but are not currently qualified to do so. MATH003 is a review of Intermediate High School Algebra intended for students preparing for one of the credit bearing Fundamental Studies Math Courses. It is taught in special computer labs using a self-paced computer program. The curriculum will be geared toward the student's level of algebra skills and eventual goals. There is a special fee for the course that may be applied in addition to the regular tuition charge. Students should refer to the schedule of classes for details on fees as they apply to a particular semester. The course does not carry any credit toward any degree at the University. The course is repeatable. Topics will be chosen from exponents, polynomials, linear equations, quadratic equations as well as polynomial, rational, exponential and logarithm functions and elementary probability or statistics, depending on the student.
MATH 010 Algebra for MATH 110 (3) Five hours of lecture per week. There is a special fee for this class in addition to the regular tuition charge. A review of Intermediate High School Algebra intended for students preparing for MATH110. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH110, the same semester, which also meets 5 days per week. Continuation in MATH110 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include linear equations, linear inequalities, operations on polynomials, factoring, solutions of quadratic equations, as well as exponential and logarithm functions. MATH010 does not carry any credit toward any degree at the University, nor is it graded. It leads to either MATH110 or MATH003, both of which are graded.

MATH 011 Algebra for MATH 111 (3) Five hours of lecture per week. There is a special fee for this class in addition to the regular tuition charge. A review of Intermediate High School Algebra intended for students preparing for MATH111. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH111, the same semester, which also meets 5 days per week. Continuation in MATH111 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations, quadratic equations, as well as polynomial, rational, exponential and logarithm functions. MATH011 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH111 (or MATH113 or MATH110), or MATH003, all of which are graded.

MATH 013 Algebra for MATH 113 (3) Five hours of lecture per week. There is a special fee for this class in addition to the regular tuition charge. A review of Intermediate High School Algebra intended for students preparing for MATH113. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH113, the same semester, which also meets 5 days per week. Continuation in MATH113 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations in one and two variables, quadratic equations, as well as polynomial, rational, exponential and logarithm functions. MATH013 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH113 (or MATH110), or MATH003, all of which are graded.

MATH 015 Algebra for MATH 115 (3) Five hours of lecture per week. There is a special fee for this class in addition to the regular tuition charge. A review of Intermediate High School Algebra intended for students preparing for MATH115. It is taught 5 days per week for the first 5 weeks, then leads directly into a special section of MATH115, the same semester, which also meets 5 days per week. Continuation in MATH115 is conditional on the student passing the MATHEMATICS PLACEMENT EXAM at the appropriate level. Topics include exponents, polynomials, linear equations in one and two variables, quadratic equations, as well as polynomial, rational, exponential and logarithm functions. MATH015 does not carry any credit toward any degree at the University, nor is it graded. It leads directly to MATH115 (or MATH113 or MATH110), or MATH003, all of which are graded.

MATH 110 Elementary Mathematical Models (3) Prerequisite: permission of department based on satisfactory score on the MATHEMATICS PLACEMENT EXAM, or satisfactory completion of MATH003 with the appropriate eligibility. Not open to students majoring in mathematics, engineering, business, life sciences, and the physical sciences. Not open to students who have completed MATH140, MATH220, or any MATH or STAT course for which MATH140 or MATH220 is a prerequisite. Credit will be granted for only one of the following: MATH110, MATH112, or MATH113. Topics include simple and compound interest; recursion for computing balances; installment loans and amortization; approximating data by linear models; analysis of applications to real-world collections of data; probability; conditional probability; independence; expected value; graphing and analysis of systems of inequalities; linear programming and applications.

MATH 111 Introduction to Probability (3) Prerequisite: permission of department based on satisfactory score on the MATHEMATICS PLACEMENT EXAM, or satisfactory completion of MATH003 with the appropriate eligibility or MATH110. Not open to students majoring in mathematics, engineering or the physical sciences. Not open to students who have completed STAT100 or any MATH or STAT course with a prerequisite of MATH141. Credit will be granted for only one of the following: MATH111 or STAT100. Logic, Boolean algebra, counting, probability, random variables, expectation, applications of the normal probability distribution.

MATH 112 College Algebra with Applications and Trigonometry (3) Prerequisite: permission of department based on math placement exam or MATH003 performance. Not open to students who have completed MATH140 or MATH220 or any course for which MATH140 or MATH220 is a prerequisite. Credit will be granted for only one of the following: (i) MATH112, or (ii) MATH113, or (iii) (MATH110 and MATH115). Graphs and applications of elementary functions, including polynomial, rational, exponential and logarithmic functions. Systems of equations. Triangle trigonometry. The course differs from MATH113 only in that it covers a substantial amount of trigonometry in place of a review of material on matrices, linear programming, sequences and series. MATH112 is strongly recommended for students in Architecture, Landscape Architecture, Life Sciences, and those needing PHYS141.

MATH 113 College Algebra with Applications (3) Prerequisite: permission of department based on satisfactory score on the MATHEMATICS PLACEMENT EXAM, or satisfactory completion of MATH003 with the appropriate eligibility, or MATH110. Not open to students who have completed MATH140, MATH220, or any course for which MATH140 or MATH220 is a prerequisite. Credit will be granted for only one of the following: MATH112; or MATH113; or (MATH110 and MATH115). Preparation for MATH220. Graphs and applications of elementary functions including: polynomial, rational, exponential and logarithmic functions. Systems of linear equations and linear inequalities used to solve representative problems in linear programming. Matrices and matrix operations including inverse. Sequences.

MATH 115 Precalculus (3) Prerequisite: permission of department based on satisfactory score on the
MATH 140 Calculus I (4) Prerequisite: permission of department based on 3 1/2 years of college preparatory mathematics (including trigonometry) and a satisfactory score on the MATHEMATICS PLACEMENT EXAM, or MATH115 with a grade of C or better. Credit will be granted for only one of the following: MATH140 or MATH220. Introduction to calculus, including functions, limits, continuity, derivatives and applications of the derivative, sketching of graphs of functions, definite and indefinite integrals, and calculation of area. The course is especially recommended for science, engineering and mathematics majors.

MATH 141 Calculus II (4) Prerequisite: A grade of C or better in MATH140 or equivalent. Credit will be granted for only one of the following: MATH141 or MATH221. Continuation of MATH140, including techniques of integration, improper integrals, applications of integration (such as volumes, work, arc length, moments), inverse functions, exponential and logarithmic functions, sequences and series.

MATH 199 Special Topics in Mathematics (3) Prerequisite: permission of department. Many games have a mathematical component. We will introduce several games, play them, and investigate the underlying mathematics. Students will work in teams on projects that involve developing strategies for new games.

MATH 212 Elements of Numbers and Operations (3) Prerequisite: One year of college preparatory algebra. Restricted to elementary, early childhood, and special education majors. Not open to students who have completed MATH210 with a grade of C- or better. Credit will be granted for only one of the following: MATH210 or MATH212. Topics from algebra and number theory designed to provide insight into arithmetic: sets, functions, number systems, number theory; operations with natural numbers, integers, rational numbers; linear equations.

MATH 213 Elements of Geometry and Measurement (3) Prerequisite: MATH212. Restricted to elementary and early childhood education majors. Not open to students who have completed MATH211 with a grade of C- or better. Credit will be granted for only one of the following: MATH211 or MATH213. Properties of geometric objects in two and three dimensions; parallel lines, curves and polygons; ratio, proportion, similarity; transformational geometry and measurement, constructions, justifications and proofs.

MATH 214 Elements of Probability and Statistics (3) Prerequisite: MATH212. Restricted to elementary and early childhood education majors. Not open to students who have completed MATH211 with a grade of C- or better. Credit will be granted for only one of the following: MATH211 or MATH214. Permutations and combinations; probability; collecting and representing data; using statistics to analyse and interpret data.

MATH 220 Elementary Calculus I (3) Prerequisite: permission of department based on 3 1/2 years of college preparatory mathematics (including trigonometry) and satisfactory performance on the MATHEMATICS PLACEMENT EXAM, or MATH112, or MATH113, or MATH115. Not open to students majoring in mathematics, engineering or the physical sciences. Credit will be granted for only one of the following: MATH140 or MATH220. Basic ideas of differential and integral calculus, with emphasis on elementary techniques of differentiation and applications.

MATH 221 Elementary Calculus II (3) Prerequisite: MATH220, or MATH140, or equivalent. Not open to students majoring in mathematics, engineering or the physical sciences. Credit will be granted for only one of the following: MATH141 or MATH221. Differential and integral calculus, with emphasis on elementary techniques of integration and applications.

MATH 240 Introduction to Linear Algebra (4) Prerequisite: MATH141 or equivalent. Credit will be granted for only one of the following: MATH240, MATH341, MATH400, or MATH461. Basic concepts of linear algebra: vector spaces, applications to line and plane geometry, linear equations and matrices, similar matrices, linear transformations, eigenvalues, determinants and quadratic forms.

MATH 241 Calculus III (4) Prerequisite: MATH141. Credit will be granted for only one of the following: MATH241 or MATH340. Introduction to multivariable calculus, including vectors and vector-valued functions, partial derivatives and applications of partial derivatives (such as tangent planes and Lagrange multipliers), multiple integrals, volume, surface area, and the classical theorems of Green, Stokes and Gauss.

MATH 242 Numerical Techniques in Engineering (3) Prerequisite: MATH141; and ENEE114 or CMSC106 or CMSC131 or equivalent. Restricted to Engineering, Math, and Physics majors only. Also offered as ENEE241. Credit will be granted for only one of the following: ENES240 or ENEE241 or MATH242. Introduction to error analysis, conditioning and stability of algorithms. Numerical solution of nonlinear equations. Vector spaces and linear transformations. Matrix algebra. Gaussian elimination. LU factorization, matrix inversion. Similarity transformations and diagonalization. Iterative computation of eigenvalues. Interpolation; splines; data fitting. Numerical integration.

MATH 246 Differential Equations for Scientists and Engineers (3) Prerequisite: MATH141; and any one of the following: MATH240 or ENES102 or PHYS161 or PHYS171. Credit will be granted for only one of the

MATH 274 History of Mathematics (3) Three hours of lecture per week. Prerequisite: MATH140 or MATH220. An overview of aspects in the history of mathematics from its beginning in the concrete problem solving of ancient times through the development of abstraction in the 19th and 20th centuries. The course considers both mathematical ideas and the context in which they developed in various civilizations around the world.

MATH 299 Selected Topics in Mathematics (1-3) Prerequisite: permission of department. Topics of special interest under the general guidance of the departmental committee on undergraduate studies.

MATH 310 Introduction to Analysis (3) Prerequisite: MATH141. Corequisite: MATH241. Math majors may not use this course to satisfy an upper-level requirement. For MATH majors only. To prepare students for MATH410 Advanced Calculus. To develop the students' ability to construct a rigorous proof of a mathematical claim. Students will also be made aware of mathematical results that are of interest to those wishing to analyze a particular mathematical model. Topics will be drawn from logic, set theory, structure of the number line, elementary topology, metric spaces, functions, sequences and continuity.

MATH 340 Multivariable Calculus, Linear Algebra and Differential Equations (4) I (Honors) Prerequisite: MATH140; MATH141; and permission of department. Credit will be granted for only one of the following: MATH241 or MATH340. First semester of the MATH340-341 sequence which gives a unified and enriched treatment of multivariable calculus, linear algebra and ordinary differential equations, with supplementary material from subjects such as differential geometry, Fourier series and calculus of variations. Students completing MATH340-341 will have covered the material of MATH240, MATH241, and MATH246, and may not also receive credit for MATH240, MATH241 or MATH246.

MATH 341 Multivariable Calculus, Linear Algebra, Differential Equations (4) II (Honors) Prerequisite: MATH340. A student receiving credit for MATH341 cannot receive credit for MATH240, MATH246, MATH400, or MATH461. A continuation of MATH340.

MATH 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor and student's internship sponsor. Junior standing.

MATH 400 Vectors and Matrices (3) Prerequisite: MATH221 or equivalent. Not open to students in the CMPS or Engineering Colleges. Credit will be granted for only one of the following: MATH240, MATH341, MATH400, or MATH461. The essentials of matrix theory needed in the management, social and biological sciences. Main topics: systems of linear equations, linear independence, rank, orthogonal transformations, eigenvalues, the principal axes theorem. Typical applications: linear models in economics and in statistics, Markov chains, age-specific population growth.

MATH 401 Applications of Linear Algebra (3) Prerequisite: MATH240 or MATH461. Various applications of linear algebra: theory of finite games, linear programming, matrix methods as applied to finite Markov chains, random walk, incidence matrices, graphs and directed graphs, networks and transportation problems.

MATH 402 Algebraic Structures (3) Prerequisite: MATH240 or equivalent. Not open to mathematics graduate students. Credit will be granted for only one of the following: MATH402 or MATH403. For students having only limited experience with rigorous mathematical proofs. Parallels MATH403. Students planning graduate work in mathematics should take MATH403. Groups, rings, integral domains and fields, detailed study of several groups; properties of integers and polynomials. Emphasis is on the origin of the mathematical ideas studied and the logical structure of the subject.

MATH 403 Introduction to Abstract Algebra (3) Prerequisite: MATH240 and MATH241; or equivalent. Credit will be granted for only one of the following: MATH402 or MATH403. Integers; groups, rings, integral domains, fields.

MATH 404 Field Theory (3) Prerequisite: MATH403. Algebraic and transcendental elements, Galois theory, constructions with straight-edge and compass, solutions of equations of low degrees, insolubility of the quintic equation, Sylow theorems, fundamental theorem of finite Abelian groups.

MATH 405 Linear Algebra (3) Prerequisite: MATH240 or MATH461. An abstract treatment of finite dimensional vector spaces. Linear transformations and their invariants.

MATH 406 Introduction to Number Theory (3) Prerequisite: MATH141 or permission of department. Integers, divisibility, prime numbers, unique factorization, congruences, quadratic reciprocity, Diophantine equations and arithmetic functions.

MATH 410 Advanced Calculus I (3) Prerequisites: MATH240 and MATH241, with grade of C or better; and permission of department. First semester of a year course. Subjects covered during the year are: sequences and series of numbers, continuity and differentiability of real valued functions of one variable, the Riemann
integral, sequences of functions and power series. Functions of several variables including partial derivatives, multiple integrals, line and surface integrals. The implicit function theorem.

**MATH 411 Advanced Calculus II (3)** Prerequisite: MATH410 and permission of department. Credit will be granted for only one of the following: MATH411 or MATH412. Continuation of MATH410.

**MATH 412 Advanced Calculus with Applications (3)** Prerequisite: MATH410 and permission of department. Not open to students who have completed MATH350 and MATH351. Credit will be granted for only one of the following: MATH411 or MATH412. Analysis in several variables, and applications, from a computational perspective.

**MATH 414 Differential Equations (3)** Prerequisites: MATH410 and MATH240; or equivalent. Existence and uniqueness theorems for initial value problems. Linear theory: fundamental matrix solutions, variation of constants formula, Floquet theory for periodic linear systems. Asymptotic orbital and Lyapunov stability with phase plane diagrams. Boundary value theory and series solutions.

**MATH 420 Mathematical Modeling (3)** Prerequisite: MATH241, MATH246, STAT400, MATH240 or MATH461; and permission of department. Also offered as AMSC420. Credit will be granted for only one of the following: AMSC420, MATH420, or MATH420. The course will develop skills in mathematical modeling through practical experience. Students will work in groups on specific projects involving real-life problems that are accessible to their existing mathematical backgrounds. In addition to the development of mathematical models, emphasis will be placed on the use of computational methods to investigate these models, and effective oral and written presentation of the results.

**MATH 424 Introduction to the Mathematics of Finance (3)** Prerequisites: MATH414; and either STAT400 or BMGT231 and permission of department. Recommended: MATH240, MATH241, or MATH246. Credit will be granted for only one of the following: BMGT444, MATH424 or MATH498F. Formerly MATH 498F. Introduction to the mathematical models used in finance and economics with emphasis on pricing derivative instruments. Designed for students in mathematics, computer science, engineering, finance and physics. Financial markets and instruments; elements from basic probability theory; interest rates and present value analysis; normal distribution of stock returns; option pricing; arbitrage pricing theory; the multiperiod binomial model; the Black-Scholes option pricing formula; proof of the Black-Scholes option pricing formula and applications; trading and hedging of options; Delta hedging; utility functions and portfolio theory; elementary stochastic calculus; Ito’s Lemma; the Black-Scholes equation and its conversion to the heat equation.


**MATH 431 Geometry for Computer Graphics (3)** Prerequisite: MATH240 or MATH461. Topics from projective geometry and transformation geometry, emphasizing the two-dimensional representation of three-dimensional objects and objects moving about in the plane and space. The emphasis will be on formulas and algorithms of immediate use in computer graphics.

**MATH 432 Introduction to Topology (3)** Prerequisite: MATH410 or equivalent. Metric spaces, topological spaces, connectedness, compactness (including Heine-Borel and Bolzano-Weierstrass theorems), Cantor sets, continuous maps and homeomorphisms, fundamental group (homotopy, covering spaces, the fundamental theorem of algebra, Brouwer fixed point theorem), surfaces (e.g., Euler characteristic, the index of a vector field, hairy sphere theorem), elements of combinatorial topology (graphs and trees, planarity, coloring problems).

**MATH 436 Differential Forms (3)** Prerequisite: MATH410 or equivalent. Recommended: One of the following - MATH403, MATH405, MATH410, MATH432, or MATH436. Introduction to differential forms and their applications, and unifies the fundamental theorems of multivariable calculus in a general Stokes Theorem that is valid in great generality. It develops this theory and technique to perform calculations in analysis and geometry. Topics include an introduction to topological spaces, the Gauss-Bonnet Theorem, Gauss's formula for the linking number, and the Cauchy Integral Theorem. Applications include Maxwell's equations of electromagnetism, connections and gauge theory, and symplectic geometry and Hamiltonian dynamics.

**MATH 445 Elementary Mathematical Logic (3)** Prerequisite: MATH414. Credit will be granted for only one of the following: MATH445 or MATH450/CMSC450. Elementary development of propositional and predicate logic, including semantics and deductive systems and with a discussion of completeness, incompleteness and the decision problem.
MATH 446 Axiomatic Set Theory (3) Prerequisite: MATH403 or MATH410. Development of a system of axiomatic set theory, choice principles, induction principles, ordinal arithmetic including discussion of cancellation laws, divisibility, canonical expansions, cardinal arithmetic including connections with the axiom of choice, Hartog's theorem, König's theorem, properties of regular, singular and inaccessible cardinals.

MATH 450 Logic for Computer Science (3) Prerequisites: CMSC251 and MATH141, with grade of C or better and permission of department. Also offered as CMSC450. Credit will be granted for only one of the following: MATH445 or MATH450/CMSC450. Elementary development of propositional and first-order logic accessible to the advanced undergraduate computer science student, including the resolution method in propositional logic and Herbrand's Unsatisfiability Theorem in first-order logic. Included are the concepts of truth, interpretation, validity, provability, soundness, completeness, incompleteness, decidability and semi-decidability.

MATH 452 Introduction to Dynamics and Chaos (3) Prerequisite: MATH240 and MATH246. Also offered as CMSC452. Credit will be granted for only one of the following: AMSC452, MAPL452 or MATH452. An introduction to mathematical dynamics and chaos. Orbits, bifurcations, Cantor sets and horseshoes, symbolic dynamics, fractal dimension, notions of stability, flows and chaos. Includes motivation and historical perspectives, as well as examples of fundamental maps studied in dynamics and applications of dynamics.

MATH 456 Cryptology (3) Prerequisites: Any two 400-level MATH courses; or CMSC330 and CMSC351 and permission of department. Also offered as CMSC456. Importance in protecting data in communications between computers. The subject lies on the border between mathematics and computer science. Mathematical topics include number theory and probability. Computer science topics include complexity theory.

MATH 461 Linear Algebra for Scientists and Engineers (3) Prerequisites: MATH141 and one MATH/STAT course for which MATH141 is a prerequisite. This course cannot be used toward the upper level math requirements for MATH/STAT majors. Credit will be granted for only one of the following: MATH240, MATH241, MATH400 or MATH461. Basic concepts of linear algebra. This course is similar to MATH 240, but with more extensive coverage of the topics needed in applied linear algebra: change of basis, complex eigenvalues, diagonalization, the Jordan canonical form.

MATH 462 Partial Differential Equations for Scientists and Engineers (3) Prerequisites: MATH241 and MATH246. Linear spaces and operators, orthogonality, Sturm-Liouville problems and eigenfunction expansions for ordinary differential equations. Introduction to partial differential equations, including the heat equation, wave equation and Laplace's equation. Boundary value problems, initial value problems and initial-boundary value problems.

MATH 463 Complex Variables for Scientists and Engineers (3) Prerequisite: MATH241 or equivalent. The algebra of complex numbers, analytic functions, mapping properties of the elementary functions. Cauchy integral formula. Theory of residues and application to evaluation of integrals. Conformal mapping.

MATH 464 Transform Methods for Scientists and Engineers (3) Prerequisite: MATH246. Fourier series, Fourier and Laplace transforms. Evaluation of the complex inversion integral by the theory of residues. Applications to ordinary and partial differential equations of mathematical physics: solutions using transforms and separation of variables. Additional topics such as Bessel functions and calculus of variations.

MATH 470 Mathematics for Secondary Education (3) Prerequisite: MATH140, MATH141, and one 400-level Math course. Not open to students who have completed MATH498E. Credit will be granted for only one of the following: MATH470 or MATH498E. Formerly MATH 498E. An advanced perspective on some of the core mathematics underlying high school mathematics courses. Topics include number systems, functions of one variable, equations, inequalities, trigonometric functions, curve fitting, and polynomials. The course includes an analysis of alternate approaches to mathematical ideas and problems, and makes connections between ideas that may have been studied separately in different high school and college courses.

MATH 475 Combinatorics and Graph Theory (3) Prerequisites: MATH240 and MATH241; and permission of department. Also offered as CMSC475. Credit will be granted for only one of the following: MATH475 or CMSC475. General enumeration methods, difference equations, generating functions. Elements of graph theory, matrix representations of graphs, applications of graph theory to transport networks, matching theory and graphical algorithms.

MATH 478 Selected Topics For Teachers of Mathematics (1-3) Prerequisite: one year of college mathematics or permission of department. This course cannot be used toward the upper level math requirements for MATH/STAT majors.

MATH 480 Algebra for Middle School Teachers (3) Restricted to middle school teachers. This course cannot be used toward the upper level math requirement for MATH and STAT majors. Prerequisite: MATH214 or equivalent. Not open to students who have completed MATH498C. Credit will be granted for only one of the following: MATH480, MATH483, or MATH498C. Formerly MATH 498C. Prepares teachers with elementary certification to teach Algebra 1 in middle school. Focuses on basic algebra concepts and related theoretical ideas.
MATH 481 Statistics and Data Analysis for Middle School Teachers (3) Prerequisite: MATH214 or equivalent. Course for middle school teachers. This course cannot be used toward the upper level math requirements for MATH/STAT majors. Not open to students who have completed MATH498B. Credit will be granted for only one of the following: MATH481, MATH498B, or MATH485. Formerly MATH 498B. Prepares teachers with elementary certification to teach simple data analysis and probability in middle school. Focuses on understanding basic statistics, data analysis, and related theoretical ideas.

MATH 482 Geometry for Middle School Teachers (3) Prerequisite: MATH214 or equivalent. Course for middle school teachers. This course cannot be used toward the upper level math requirements for MATH/STAT majors. Senior standing. Not open to students who have completed MATH498E. Credit will be granted for only one of the following: MATH482, MATH484, or MATH498E. Prepares teachers with elementary certification to teach geometry in middle school. Focuses on understanding basic geometry concepts and related theoretical ideas.

MATH 483 Algebra for School Teachers (3) Prerequisite: MATH141. Cannot be used toward the upper level math requirements for MATH/STAT majors. Senior standing. Not open to students who have completed MATH498C. Credit will be granted for only one of the following: MATH498C, MATH483, or MATH480. Formerly MATH 498C. Focuses on concepts related to algebra and trigonometry, including functions, equations, inequalities, and data analysis. Assumes a good understanding of calculus.

MATH 484 Geometry for High School Teachers (3) Prerequisite: MATH141. Cannot be used toward the upper level math requirement for MATH/STAT majors. Senior standing. Not open to students who have completed MATH498E. Credit will be granted for only one of the following: MATH482, MATH484, or MATH498E. Formerly MATH 498E. Focuses on concepts related to geometry, including several geometry axiom schemes, transformations, and similarity. Includes constructions with Geometer's Sketchpad.

MATH 485 Statistics for High School Teachers (3) Prerequisite: MATH141. Cannot be used toward the upper level math requirements for MATH/STAT majors. Not open to students who have completed MATH498S. Credit will be granted for only one of the following: MATH481, MATH485, or MATH498S. Formerly MATH 498S. Focuses on concepts related to statistics and data analysis, including probability, sampling, distribution of data, and inference.

MATH 486 Calculus for High School Teachers (3) Prerequisite: MATH141. Cannot be used toward the upper level math requirements for MATH/STAT majors. Focuses on concepts related to one-variable calculus including limits, continuity, derivative, integrals, series, and applications of these topics.

MATH 489 Research Interactions in Mathematics (1-3) Prerequisite: permission of department. Repeatable to 10 credits if content differs. Students participate in a vertically integrated (undergraduate, graduate and/or postdoctoral, faculty) mathematics research group. Format varies. Students and supervising faculty will agree to a contract which must be approved by the department. Up to three credits of MATH489 may be applied to the mathematics degree requirements. See the department's MATH489 online syllabus for further information.

MATH 498 Selected Topics in Mathematics (1-9) Honors students register for reading courses under this number. Repeatable to 9 credits if content differs. Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the departmental committee on undergraduate studies.

MATH 499 Honors Seminar (2) Prerequisite: permission of department. Not open to graduate students. Formerly MATH 398. Faculty supervised reports by students on mathematical literature. Both oral and written presentation on special topics of current interest.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: MEES - Marine-Estuarine-Environmental Sciences

Course Number: ____________________

Search

Courses in "MEES-Marine-Estuarine-Environmental Sciences"

MEES - Marine-Estuarine-Environmental Sciences

MEES 498 Topics in Marine-Estuarine-Environmental Sciences (1-4) Lecture and/or laboratory series organized to study a selected area of marine-estuarine-environmental sciences not otherwise considered in formal courses.

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http://www.umd.edu/catalog/index.cfm/show/content.chapter/c/50/program/589 5/7/2008
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Use the search box below to view the approved courses.

Select Program: MUED - Music Education

Course Number: Search

Courses in "MUED-Music Education"

MUED - Music Education

MUED 155 Fundamentals for the Classroom Teacher (3) Open to students majoring in pre-early childhood education, pre-elementary education, elementary education or childhood education. Credit will be granted for only one of the following: MUED155 or MUSC155. Formerly MUSC 155. The fundamentals of music theory and practice, related to the needs of the classroom and the kindergarten teacher.

MUED 186 Pre-professional Experiences I (2) For MUED majors only. Not open to students who have completed MUED197. Credit will be granted for only one of the following: MUED197 or MUED186. Formerly MUED 197. An orientation into the role of the music teacher in the school and community. On-site school visits at elementary, middle and high school levels form the basis for discussion and exploration of all facets of the music education profession. Fulfills the College of Arts and Humanities requirement for UNIV101.
MUED 187 Pre-Professional Experiences II (1) Prerequisite: MUED186. For MUED majors only. Regular on-site school visitation at elementary, middle and high school levels arranged to expand student understandings and reflections of music instruction in classroom settings.

MUED 213 String Technique and Pedagogy I (2) Open only to majors in music education. For MUED majors only. Not open to students who have completed MUED113. Credit will be granted for only one of the following: MUED113 or MUED213. Formerly MUED 113. A study of violin, viola, cello and bass technique and pedagogy; beginning level. Emphasizes group process playing and teaching.

MUED 214 String Technique and Pedagogy II (2) Prerequisite: MUED213; open only to majors in Music Education (instrumental option). Not open to students who have completed MUED114. Credit will be granted for only one of the following: MUED114 or MUED214. Formerly MUED 114. A study in violin, viola, cello and bass technique and pedagogy; intermediate to advanced level. Emphasizes group process playing and teaching, chamber music and individual technique development.

MUED 215 Woodwind Technique and Pedagogy (2) Prerequisite: permission of department. Formerly: MUED116 and MUED117. Not open to students who have completed MUED116 and MUED117. Credit will be granted for only one of the following: MUED116, MUED117 or MUED215. Playing experience on instruments of the woodwind family. Historical and acoustical background. Principles of improvisation. Basic concepts of teaching. Methods and materials. Techniques of individual and class instruction.

MUED 216 Percussion Technique and Pedagogy (2) For MUED majors only. Not open to students who have completed MUED116, MUED120 and MUED121. Credit will be granted for only one of the following: MUED116, MUED120 and MUED121; or MUED216. Playing experience on percussion instruments. Historical and acoustical background. Scoring for percussion. Principles of improvisation. Basic concepts of teaching. Methods and materials. Techniques of individual and class instruction.

MUED 217 Brass Instrument Technique and Pedagogy (2) Formerly: MUED120 and MUED121. For MUED majors only. Not open to students who have completed MUED120 and MUED121. Credit will be granted for only one of the following: MUED120 and MUED121; or MUED217. Playing experience on instruments of the brass family. Historical and acoustical background. Principles of improvisation. Basic concepts of teaching. Methods and materials. Techniques of individual and class instruction.

MUED 222 Classroom Instruments Technique and Pedagogy (2) Prerequisite: MUED186 and MUED187. For MUED majors only. An introduction to the fundamentals of classroom instruments technique and pedagogy for the choral and general teacher.

MUED 311 Foundations of Elementary Instrumental Instruction (2) For MUED majors only. Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to teach fundamental musical skills at the elementary level.

MUED 320 Foundations of Secondary Instrumental Instruction (2) Prerequisite: MUED311. For MUED majors only. Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to extend secondary-level musical skill through planned instruction and development of teaching materials.

MUED 333 Classroom Vocal Pedagogy (2) Prerequisites: MUED186 and MUED187. For MUED majors only. An introduction to the fundamentals of group vocal pedagogy for the choral and general classroom teacher, including the teaching of posture, breathing, resonance, registration, articulation and foreign language diction as appropriate to needs of the child or adolescent singer in K-12 classroom settings.

MUED 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor and student’s internship sponsor. Junior standing.

MUED 410 Instrumental Arranging (2) Prerequisites: MUSC250 and permission of department. Arranging for school bands and orchestras from the elementary through high school levels.

MUED 411 Advanced Methods in Elementary Instrumental Music Instruction (2) Prerequisites: MUED311 and MUED320. Corequisite: MUED489. For MUED majors only. Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to develop and/or maintain an exemplary curricular-oriented, research-based, comprehensive elementary instrumental music program.

MUED 420 Advanced Methods in Secondary Instrumental Music Instruction (2) Prerequisites: MUED311 and MUED320. Corequisite: MUED489. For MUED majors only. Prepare instrumental-emphasis music education majors to synthesize the knowledge and skills that will enable them to develop and/or maintain an exemplary, curricular-oriented, research-based, comprehensive secondary instrumental program.

MUED 471 Elementary General Music Methods (2) Prerequisites: MUED222 and MUED333. Corequisite: MUED489. For MUED majors only. A study of music curriculum, materials and teaching techniques for the
development of sequential experiences which contribute to children's musical growth in the elementary schools.

MUED 472 Choral Methods (2) Prerequisite: MUED471. Corequisite: MUED489. For MUED majors only. Preparation for teaching choral classes through the integration of conducting technique, vocal pedagogy, knowledge of repertoire, and the application of appropriate instructional strategies in the context of peer teaching and field experience assignments.

MUED 473 Secondary General Music Methods (2) For MUED majors only. Not open to students who have completed MUED478 (Special Topics in Music Education: General Music in Middle/Junior or High Schools). Credit will be granted for only one of the following: MUED473 or MUED478. Formerly MUED 478. Introduction to current trends, materials and approaches in secondary general music instruction.

MUED 474 Field Experiences: Pre-Student Teaching (1) Prerequisite: MUED411 and MUED420; or MUED471 and MUED472; and permission of department. Senior standing. Credit will be granted for only one of the following: MUED489P or MUED474. Formerly MUED 489P. Field experiences to fulfill teaching requirements in K-12 music teacher education program.

MUED 484 Student Teaching in Elementary School: Music (4-6) Prerequisites: Admission to teacher education program and permission of department. Corequisite: MUED494. For MUED majors only. Not open to students who have completed EDCI484. Credit will be granted for only one of the following: EDCI484 or MUED484. Formerly EDCI 484. Fulfills elementary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

MUED 489 Field Experiences (1) Prerequisite: permission of department. Restricted to music education majors only. Repeatable to 6 credits. Series of field experiences in K-12 settings.

MUED 494 Student Teaching in Secondary School: Music (4-6) Prerequisite: admission to teacher education program and permission of department. Corequisite: MUED484. For MUED majors only. Not open to students who have completed EDCI494. Credit will be granted for only one of the following: EDCI494 or MUED494. Formerly EDCI 494. Fulfill secondary teaching requirements in K-12 music teacher education program. Limited to music education majors who have previously applied.

MUED 499 Workshops, Clinics, Institutes (1-3) Repeatable to 6 credits if content differs. Innovative and experimental dimensions of music education offered to meet the needs of music teachers and music supervisors allowing students to individualize their programs.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: MUET - Ethnomusicology

Course Number: 

Search

Courses in "MUET-Ethnomusicology"

MUET - Ethnomusicology

MUET 200 World Popular Musics and Identity (3) Two hours of lecture and one hour of discussion/recitation per week. Perspectives of world popular music as contested terrain, in terms of gender, nationality and aesthetics. Students will read case histories of specific movements, social commentaries on genres such as reggae, celtic-pop and rap, and investigate issues such as accessibility and technological constraints. The unifying factors are cross-cultural perceptions and displays of national identity, cultural retentions, stability and change.

MUET 210 The Impact of Music on Life (3) Two hours of lecture and one hour of discussion/recitation per week. Music as a part of culture. Materials drawn from traditions throughout the globe to illustrate issues of historical and contemporary significance, including the impact of race, class and gender on the study of music.
MUET 220 Selected Musical Cultures of the World (3) A survey of selected musical cultures of the world, such as India, Japan, China, Indonesia, West Africa, Eastern Europe and the Near East.

MUET 420 Introduction to Ethnomusicology (3) Prerequisite: MUET210, MUSC130, or permission of instructor. Junior standing. Study of principal concepts and methods in ethnomusicology, covering history of field, linguistics and anthropology, music in various settings, musical cognition and ethnography of performance.

MUET 430 The American Musical Experience: North America (3) Prerequisite: MUET210 or MUSC130. Junior standing. Many musical styles found in North America portray the ideas and beliefs that characterize our diverse society. Specific problems and issues in American society examined through the American musical experience.

MUET 432 Music in World Culture I (3) Prerequisite: MUSC130 or permission of department. Junior standing. Musics of the Pacific and Asia analyzed in terms of musical, social and aesthetic interrelationships.

MUET 433 Music in World Cultures II (3) Prerequisite: MUSC130 or permission of department. Junior standing. Musics of Europe, Africa, and the Americas analyzed in terms of musical, social and aesthetic interrelationships.

MUET 438 Area Studies in Ethnomusicology (3) Prerequisite: MUET432 or MUET433 or equivalent. Repeatable to 9 credits if content differs. Advanced study of musics in selected parts of the world.

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Use the search box below to view the approved courses.

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Select Program: MUSC - School of Music

Course Number: ____________

Search
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Courses in "MUSC-School of Music"

**MUSC - School of Music**

**MUSC 099 Performance Attendance ()** Performance attendance laboratory for undergraduate music majors.

**MUSC 100 Beginning Class Voice (2)** Four hours of laboratory per week. A laboratory course involving a variety of voices and vocal problems. Principles of correct breathing as applied to singing; fundamentals of tone production and diction. Repertoire of folk songs and songs of the Classical and Romantic periods. Development of students' voices.

**MUSC 102 Class Piano (2)** Four hours of laboratory per week. Functional piano training for beginners.
Development of techniques for school and community playing. Basic piano techniques; chord, arpeggio and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition and playing by ear.

**MUSC 103 Beginning Class Piano II (2)** Four hours of laboratory per week. Prerequisite: MUSC102 or permission of department. Functional piano training for beginners. Development of techniques useful for school and community playing. Basic piano techniques; chord, arpeggio, and scale techniques; melody and song playing; simple accompaniments, improvisation for accompaniments and rhythms; sight reading and transposition, and playing by ear. MUSC 103 is a continuation of MUSC 102; elementary repertoire is begun.

**MUSC 106 Beginning Classical Guitar (2)** Two hours of lecture and five hours of laboratory per week. Introduction to classical guitar notation, technique, literature and performance. No previous musical experience required.

**MUSC 123 Movement for Singers (1)** Prerequisite: permission of department. Systematic exercises, improvisations and dances in conjunction with artistic vocal expression. Performance and critique of stage deportment, gestures and recital techniques.

**MUSC 126 Vocal Diction: English and Latin (1)** Two hours of laboratory per week. Prerequisite: permission of department. Augmentation of private voice study. Phonetics and diction for singers of English and Latin vocal literature.

**MUSC 127 Vocal Diction: Italian and Spanish (1)** Prerequisite: permission of department. For MUSC majors only. Augmentation of private voice study. Phonetics and diction for singers of Italian and Spanish vocal literature.

**MUSC 128 Sight Reading For Pianists (2)** Repeatable to 4 credits. A course to give the piano major an opportunity to develop proficiency in sight reading at the keyboard.

**MUSC 129 Ensemble (1)** Three hours of laboratory per week. Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

**MUSC 130 Survey of Music Literature (3)** Three hours of lecture and one hour of laboratory per week. Open to all students except music and music education majors. A study of the principles upon which music is based, and an introduction to the musical repertory performed in America today.

**MUSC 140 Music Fundamentals I (3)** Limited to non-music majors. Introductory theory course. Notation, scales, intervals, triads, rhythm, form and basic aural skills.

**MUSC 150 Theory of Music I (3)** Prerequisite: departmental audition and entrance examination. For MUSC majors only. A study of basic concepts and skills in tonal melody and harmony through analysis and composition.

**MUSC 151 Theory of Music II (3)** Prerequisite: a grade of C or better in MUSC150. A continuation of MUSC150, including study of more advanced harmonic techniques of the eighteenth century, such as modulation and chromatic harmonies. Emphasis on sight singing, ear training, analysis and compositional skills.

**MUSC 155 Fundamentals for the Classroom Teacher (3)** Open to students majoring in pre-early childhood education, pre-elementary education, elementary education, or childhood education; other students take MUSC150. Credit will be granted for only one of the following: MUSC150 or MUSC155. The fundamentals of music theory and practice, related to the needs of the classroom and kindergarten teacher, and organized in accordance with the six-area concept of musical learning.

**MUSC 200 Intermediate Class Voice I (2)** Four hours of laboratory per week. Prerequisite: MUSC100 or equivalent vocal training. Continuation of MUSC100, with more advanced repertory for solo voice and small ensembles. A special section for music education majors will include the study of methods and materials for teaching class voice.

**MUSC 202 Intermediate Class Piano I (2)** Four hours of laboratory per week. Prerequisite: MUSC103 or equivalent piano training. Advanced keyboard techniques. Continuation of skills introduced in MUSC103. Transposition, modulation and sight reading; methods of teaching functional piano.

**MUSC 203 Intermediate Class Piano II (2)** Four hours of laboratory per week. Prerequisite: MUSC202 or equivalent piano training. Advanced keyboard techniques. Continuation of skills introduced in MUSC202. Transposition, modulation and sight reading; methods of teaching functional piano. Development of style in playing accompaniments and in playing for community singing. More advanced repertory.
MUSC 205 History of Rock Music, 1950 - Present (3) Two hours of lecture and one hour of discussion/recitation per week. A historical survey of rock music from about 1950 to the present, with emphasis on pop music as music and pop music as social history.

MUSC 226 Vocal Diction: French (1) Prerequisite: permission of department. For MUSC majors only. Augmentation of private voice study. Phonetics and diction for singers of French vocal literature.

MUSC 227 Vocal Diction: German (1) Prerequisite: permission of department. For MUSC majors only. Augmentation of private study. Phonetics and diction for singers of German vocal literature.

MUSC 228 Introduction to Accompanying for Pianists (2) Prerequisite: permission of department. For MUSC majors only. Repeatable to 10 credits. A course to introduce the piano major to accompanying at an intermediate level of difficulty. Class instruction will center on rehearsal and coaching geared toward performance, and will be supplemented by experience working as an accompanist in voice classes or applied studios.

MUSC 229 Ensemble (1) Three hours of laboratory per week. Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

MUSC 230 History of Music I (3) Prerequisite: MUSC250 or equivalent; and permission of department. A historical study of western music from Corelli through Beethoven.

MUSC 248 Selected Topics in Music (1-3) Prerequisite: permission of School of Music. A maximum of three credits may be applied to music major requirements. Repeatable to 6 credits if content differs. Designed to allow a student of theory or music history to pursue a specialized topic or project under the supervision of a faculty member.

MUSC 250 Advanced Theory of Music I (4) Prerequisite: MUSC151 with a minimum grade of C. A continuation of MUSC 151, with further study of chromatic and modulatory techniques of the nineteenth century. Emphasis on sight singing, ear training, analysis and compositional skills.

MUSC 251 Advanced Theory of Music II (4) Prerequisite: a grade of C or better in MUSC250. A continuation of MUSC250, concentrating on late nineteenth-century chromatic harmony and an introduction to twentieth-century melody and harmony. Emphasis on sight singing, ear training, analysis and compositional skills.

MUSC 258 Introduction to Chamber Music for Pianists (2) Two hours of lecture and two hours of laboratory per week. Prerequisite: permission of department. Repeatable to 10 credits. A course to introduce the piano major to chamber music at a moderately difficult level. Class instruction will center on actual rehearsal and coaching geared toward performance, and will be supplemented by further experience in applied instrumental studios.

MUSC 259 Ensemble (1) Three hours of laboratory per week. Rehearsal and performance of selected works for small ensembles of instruments, piano, or small vocal groups. After two registrations in MUSC129, the student will elect MUSC229 for two additional semesters and MUSC329 thereafter.

MUSC 330 History of Music II (3) Prerequisite: MUSC250 or equivalent; and permission of department. A historical study of western music from the Romantic era to the present.

MUSC 331 History of Music III (3) Prerequisite: MUSC230, MUSC330, and permission of department. A historical study of western music from Antiquity through the Baroque, ending with a review of all periods of music history.

MUSC 339 Honors in Music (3) Prerequisite: permission of department. Corequisite: MUSC349. Repeatable to 6 credits. The production of one or more recitals or lecture-recitals; one or more compositions; or one or more honors theses in addition to regular degree requirements. Two semesters required.

MUSC 345 Jazz Theory and Improvisation I (3) Prerequisite: MUSC251 or permission of department. Jazz theory, notational conventions, improvisation techniques, reading and analysis of music, and performance in small combo format.

MUSC 346 Jazz Theory and Improvisation II (3) Prerequisite: MUSC345 or permission of department. Continuation of MUSC345 including scoring and transcription.


MUSC 379 Opera Workshop (1) Four hours of laboratory per week. Repeatable to 4 credits. Open to music
and non-music majors (by audition). Operatic production and performance, performance techniques and coaching, stage direction, set design, costume design and make-up. Repertory will include smaller operatic works, excerpts or scenes.

MUSC 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

MUSC 388 Music Internship (3) Prerequisite: permission of department. Corequisite: MUSC389. Repeatable to 6 credits. Pre-professional field work in music.

MUSC 389 Music Internship Analysis (1) One hour of lecture per week. Corequisite: MUSC388. Repeatable to 2 credits. Documentation and evaluation of field work experience.

MUSC 400 Music Pedagogy (3) Pre- or corequisite: MUSP419 or a more advanced course in applied music; and permission of department. Conference course. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

MUSC 428 Repertoire Coaching of Vocal or Chamber Music (2) Pre- or corequisite: MUSC328. A course for piano students who wish to go further than the work offered in MUSC128, MUSC228 and MUSC328 by becoming specialists in the areas of vocal coaching or chamber music coaching. Elements of pedagogy, conducting and responsible artistic decision-making for the entire musical production.

MUSC 435 Music of North America (3) Prerequisite: permission of department. A survey of North American music from Colonial times to present.

MUSC 436 Jazz: Then and Now (3) Prerequisite: permission of department. Major styles and influential artists of the past 75 years of jazz.

MUSC 439 Collegium Musicum (1) Prerequisite: permission of department. Repeatable to 5 credits. Open to undergraduates and graduates, music majors and non-majors. Procurement, edition and performance of music not belonging to a standard repertory: early music, compositions for unusual performing media, works which demand reconstruction of their original circumstances of performance. Outcome of a semester's work may be one or more performances for the public.

MUSC 443 Solo Vocal Literature (3) Prerequisite: MUSC330, MUSC331 or equivalent. The study of solo vocal literature from the Baroque Cantata to the Art Song of the present. The Lied, Melodie, vocal chamber music and the orchestral song are examined.

MUSC 444 Wind and Percussion Literature (1) Prerequisite: permission of department. Corequisite: MUSP419 or MUSP420. Recital program notes and written projects in wind or percussion literature.

MUSC 446 String Literature (1) Prerequisite: MUSP316 and permission of department. Recital program notes and written projects in string literature.

MUSC 448 Selected Topics in Music (1-3) Prerequisite: permission of department. A maximum of three credits may be applied to music major requirements. Junior standing. Repeatable to 6 credits if content differs.

MUSC 450 Musical Form (3) Prerequisite: MUSC251. A study of the principles of organization in music with emphasis on eighteenth and nineteenth century European music. Reading and analysis of scores exemplifying the musical forms.

MUSC 451 Analysis of Music (3) Prerequisite: MUSC450 and permission of department. An advanced course in the analysis of tonal music. Discussion of individual works, with emphasis on their unique characteristics and on the relation of analysis to performance.

MUSC 452 Keyboard Harmony (2) Prerequisite: MUSC251. Keyboard performance of musical score for vocal and instrumental ensembles and keyboard realization of basso continuo parts.

MUSC 455 Theory of Jazz (3) Prerequisite: MUSC250 or permission of department. For MUSC majors only. An aural-theoretical examination of melodic and harmonic function in jazz with emphasis on bebop. "Layered" harmonic analysis combined with melodic analysis of solo transcriptions applied to the creation of small group arrangements of "standard" tunes.

MUSC 460 Tonal Counterpoint I (3) Prerequisite: MUSC251 or permission of department. A course in Eighteenth-Century contrapuntal techniques, analysis and original composition of two-voice dances, preludes, and inventions. Includes an introduction to the study of fugue and canon.

MUSC 462 Music Notation on Computers (3) Prerequisite: MUSC150 or permission of department. An in-
depth, hands-on study of music notation using computers. All issues of standard notation practice are examined, including score preparation, text in vocal music, keyboard idioms and the extraction and printing of parts from larger ensemble scores.

**MUSC 463 Applications in Music Technology (3)** A hands-on study of computer hardware and software that makes use of the MIDI (Musical Instrument Digital Interface) specification. This protocol allows computers, synthesizers and various other devices to send and receive information about musical performance, notation and sound. The course focuses on two of the most frequently used applications on MIDI -- sequencing and music notation. Also included is an introduction to digital audio. No previous experience with computers is required. Ability to read music on a grand staff (treble and bass clef) is recommended.

**MUSC 467 Piano Pedagogy I (3)** Prerequisite: permission of department. A study of major pedagogical treatises in music, and an evaluation of pedagogical techniques, materials, and procedures.

**MUSC 468 Piano Pedagogy II (3)** Prerequisite: MUSC467 and permission of department. Repeatable to 6 credits. Application of the studies begun in MUSC467 to the actual lesson situation. Evaluation of results.

**MUSC 470 Harmonic and Contrapuntal Practices of the Twentieth Century (3)** Prerequisite: MUSC251 or equivalent; and permission of department. A theoretical and analytical study of twentieth century materials.

**MUSC 471 Contemporary Compositional Techniques (3)** Prerequisite: MUSC470 and permission of department. Continuation of MUSC470, with emphasis on the analysis of individual works written since 1945.

**MUSC 480 Music in Antiquity and the Middle Ages (3)** Survey of western music from Hellenic times to 1450.

**MUSC 481 Music in the Renaissance (3)** Survey of western music from 1450 to 1600.

**MUSC 482 Music in the Baroque Era (3)** Survey of western music from 1600 to 1750.

**MUSC 483 Music in the Classic Era (3)** Survey of western music from 1750 to 1820.

**MUSC 484 Music in the Romantic Era (3)** Survey of western music from 1820 to 1900.

**MUSC 485 Music in the 20th Century (3)** Prerequisite: permission of department. Survey of western music from 1900 to the present.

**MUSC 486 Orchestration I (3)** Prerequisite: MUSC251 and permission of department. A study of the ranges, musical functions and technical characteristics of the instruments and their color possibilities in various combinations. Practical experience in orchestrating for small and large ensembles.

**MUSC 490 Conducting (2)** Prerequisite: MUSC251. Vocal and instrumental baton techniques.

**MUSC 491 Conducting II (2)** Prerequisite: MUSC490 or equivalent. Baton techniques applied to score reading, rehearsal techniques, tone production, style and interpretation.

**MUSC 492 Keyboard Music I (3)** Prerequisite: permission of department. The history and literature of harpsichord and solo piano music from its beginning to the romantic period. Emphasis is placed on those segments of repertory which are encountered in performance and teaching situations at the present time.

**MUSC 493 Keyboard Music II (3)** Prerequisite: MUSC492 and permission of department. The history and literature of harpsichord and solo piano music from the Romantic period to the present. Emphasis is placed on those segments of repertory which are encountered in performance and teaching situations at the present time.

**MUSC 494 Survey of Theory (3)** Prerequisite: MUSC251 and permission of department. A study of the major contributions of music theorists from Greek antiquity through the twentieth century.

**MUSC 499 Independent Studies (2-3)** Prerequisite: permission of department. May be repeated once for credit. Independent research on a topic chosen in consultation with the instructor, which may culminate in a paper or appropriate project.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: MUSP - Music Performance

Course Number: Search

Courses in "MUSP-Music Performance"

MUSP - Music Performance

MUSP 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

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Select Program: NFSC - Nutrition and Food Science

Course Number: ____________  Search

Courses in "NFSC-Nutrition and Food Science"

NFSC - Nutrition and Food Science

NFSC 100 Elements of Nutrition (3) Fundamentals of human nutrition. Nutrient requirements related to changing individual and family needs.

NFSC 112 Food: Science and Technology (3) Two hours of lecture and one hour of discussion/recitation per week. Introduction to the realm of food science, food technology and food processing. An overview of the largest industry in the U.S. with emphasis on the science of food and the technology of food preservation from harvest through processing and packaging to distribution and consumer utilization.

NFSC 250 Science of Food (4) Three hours of lecture and three hours of laboratory per week. Prerequisites:
NFSC 315 Nutrition During the Life Cycle (3) Prerequisite: NFSC100 or NFSC200. Formerly NUTR 315. A study of how development throughout life, including prenatal development, pregnancy, lactation, adolescence and aging, alter nutrient requirements. Students will apply this knowledge to the dietary needs and food choices of these different groups.

NFSC 350 Foodservice Operations (5) Three hours of lecture and five hours of laboratory per week. Prerequisite: NFSC250. Pre- or corequisite: BSCI223. Corequisite: BMGT364. For Dietetics majors only. Introduction to management. Responsibilities in quantity food production and purchasing in a foodservice operation. Laboratory experience in planning, preparation, and service of meals which meet the nutritional needs of the consumer.

NFSC 380 Methods of Nutritional Assessment (3) Two hours of lecture and three hours of laboratory per week. Prerequisite: NFSC315. Corequisite: BCHM461. For NFSC majors only. Methods of assessing human nutritional status of populations and individuals. These methods include dietary, anthropometric, clinical evaluations and biochemical measurements.

NFSC 386 Experiential Learning (3-6) Prerequisite: permission of department. Formerly FDSC386 and NUTR386. Junior standing.

NFSC 388 Honors Thesis Research (3-6) Prerequisite: admission to AGNR Honors Program. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

NFSC 398 Seminar (1) Formerly FDSC 398. Presentation and discussion of current literature and research in food science.

NFSC 399 Special Problems in Food Science (1-3) Formerly FDSC 399. Designed for advanced undergraduates. Specific problems in food science will be assigned.

NFSC 403 Medicinal and Poisonous Plants (2) Prerequisites: BSCI105 and CHEM104. A study of plants important to humans that have medicinal or poisonous properties. Emphasis on plant source, plant description, the active agent and its beneficial or detrimental physiological action and effects.

NFSC 412 Food Processing Technology (4) Three hours of lecture and three hours of laboratory per week. Prerequisites: CHEM243; and NFSC431; and NFSC434; and ENBE414. Corequisites: NFSC421 and NFSC423. Recommended: MATH220. Formerly FDSC 412. Provides in-depth study of the major industrial modes of food preservation. It integrates aspects of the biology, microbiology, biochemistry and engineering disciplines as they relate to food processing technology and food science.

NFSC 414 Mechanics of Food Processing (4) Three hours of lecture and one hour of laboratory per week. Prerequisite: PHYS121. Credit will be granted for only one of the following: ENBE414 or NFSC414. Formerly ENBE 414. Applications in the processing and preservation of foods, of power transmission, hydraulics, electricity, thermodynamics, refrigeration, instruments and controls, materials handling and time and motion analysis.

NFSC 421 Food Chemistry (3) Prerequisite: BCHM461. Basic chemical and physical concepts are applied to the composition and properties of foods. Emphasis on the relationship of processing technology to the keeping quality, nutritional value, and acceptability of foods.

NFSC 422 Food Product Research and Development (3) One hour of lecture and four hours of laboratory per week. Prerequisite: permission of department. Senior standing. For FDSC majors only. Formerly FDSC 422. A capstone course for FDSC majors. A study of the research and development of new food products. Application of food technology, engineering, safety and packaging are integrated by teams of students to develop a new food product from concept to pilot plant scale-up. Students will travel to nearby food processing plants on two to four Saturdays during the semester.

NFSC 423 Food Chemistry Laboratory (3) Four hours of laboratory per week. Pr- or corequisite: NFSC421. Analysis of the major and minor constituents of food using chemical, physical and instrumental methods in concordance with current food industry and regulatory practices. Laboratory exercises coincide with lecture subjects in NFSC421.

NFSC 425 International Nutrition (3) Prerequisite: course in basic nutrition. Nutritional status of world population; consequences of malnutrition on health and mental development; and local, national, and international programs for nutritional improvement.
NFSC 430 Food Microbiology (3) Prerequisite: BSCI233 or equivalent. Also offered as ANSC430. Credit will be granted for only one of the following: ANSC430. Formerly FDSC 430. A study of microorganisms of major importance to the food industry with emphasis on food-borne outbreaks, public health significance, bioprocessing of foods, disease control, and the microbial spoilage of foods.

NFSC 431 Food Quality Control (4) Three hours of lecture and two hours of laboratory per week. Definition and organization of the quality control function in the food industry; preparation of specifications; statistical methods for acceptance sampling; in-plant and processed product inspection. Instrumental and sensory methods for evaluating sensory quality, identity and wholesomeness and their integration into grades and standards of quality. Statistical Process Control (SPC).

NFSC 434 Food Microbiology Laboratory (3) One hour of lecture and five hours of laboratory per week. Prerequisite: NFSC430. Also offered as ANSC434. Credit will be granted for only one of the following: NFSC434 or ANSC434. Formerly FDSC 434. A study of techniques and procedures used in the microbiological examination of foods.

NFSC 440 Advanced Human Nutrition (4) Four hours of lecture per week. Prerequisites: NFSC100 or NFSC200; and BCHM462; and BSCI440. A critical study of physiologic, molecular and metabolic influences on utilization of carbohydrates, lipids, proteins, vitamins, macro-and micro-minerals, and nonnutritive components of food. Interactions of these nutrients and food components will be examined relative to maintaining health.

NFSC 450 Food and Nutrient Analysis (3) One hour of lecture and four hours of laboratory per week. Prerequisites: NFSC100 or NFSC200; and BCHM461. Formerly NUTR 450. Methods and practices of the analysis of foods and nutrients. An overview of the principles and basic mechanisms used in many of the analytical procedures commonly used in food nutrition research. Emphasis will be placed on hands-on development of skills necessary to complete each analytical procedure; and on the accurate and concise description of the methodology and results from their application and on the regulations governing food analysis for nutritional labeling.

NFSC 460 Medical Nutrition Therapy (4) Three hours of lecture and two hours of laboratory per week. Prerequisites: NFSC380 and NFSC440. Formerly NUTR 460. Modifications of the normal adequate diet to meet human nutritional needs in acute and chronic diseases and metabolic disorders.

NFSC 468 Practicum in Nutrition (1-6) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Formerly NUTR 468. In-service training and practical experience in the application of the principles of normal and/or therapeutic nutrition in an approved community agency, clinical facility or nutrition research laboratory.

NFSC 470 Community Nutrition (3) Two hours of lecture and three hours of discussion/recitation per week. Prerequisites: NFSC100 or NFSC200; and BSCI440. Formerly NUTR 470. Perspectives underlying the practice of nutrition services in community settings. Assessment of needs, program planning and evaluation. Programs and strategies to meet nutrition needs outside the acute care setting, such as nutrition education and food assistance. National nutrition policy and federal initiatives in nutrition will be examined. Students will be required to travel to local community nutrition sites during the semester.

NFSC 490 Special Problems in Nutrition (2-3) Prerequisites: NFSC440 and permission of department. Individually selected problems in the area of human nutrition.

NFSC 491 Issues and Problems in Dietetics (3) Five hours of lecture per week. Prerequisite: NFSC350 and permission of department. Corequisite: NFSC460. Senior standing. For DIET majors only. A capstone course for dietetics majors. Students will integrate knowledge and theory of nutrition, food, management, psychology, and social behaviors necessary to support quality dietetic practice. Working in teams, students will participate in case studies, simulated situations and community projects. Individuals and groups will present cases as well as papers on published research.

NFSC 498 Selected Topics (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Selected current aspects of food.

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Use the search box below to view the approved courses.

Select Program: NRMT - Natural Resources Management

Course Number: 

Search

Courses in "NRMT-Natural Resources Management"

NRMT - Natural Resources Management

NRMT 388 Honors Thesis Research (3-6) Prerequisite: admission to AGNR Honors Program. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

NRMT 389 Internship (3) Prerequisite: permission of department. Repeatable to 6 credits. Formerly AGRI 389. Students are placed in work experiences related to their stated career goals for a minimum of eight hours a week for a semester. Each student must do an in-depth study in some portion of the work experience and produce a special project and report related to this study. A student work log is also required. An evaluation from the external supervisor of the project will be required.
NRMT 444 Restoration Ecology (3) Prerequisite: MATH220. Sophomore standing. Credit will be granted for only one of the following: NRMT444 or NRMT489F. Formerly NRMT 489F. Discussion of the philosophies, principles, and practices of ecosystem restoration. Presentation of restoration case histories include wetlands, lakes, streams, coastal systems, mined lands, and new ecosystems.

NRMT 450 Wetland Ecology (3) One hour of lecture and four hours of laboratory per week. Prerequisite: BIOM301 or permission of department. Also offered as MEES650. Credit will be granted for only one of the following: NRMT450 or MEES650. Plant and animal communities, biogeochemistry, and ecosystem properties of wetland systems. Laboratory emphasizes collection and analysis of field data on wetland vegetation, soil, and hydrology.

NRMT 451 Water Quality: Field and Lab Analysis Methods (3) Two hours of lecture and three hours of laboratory per week. Prerequisites: CHEM131/132 and (CHEM104 or CHEM231/232). Credit will be granted for only one of the following: ENBE451 or NRMT451. Hands-on experience with techniques for assessing physical, chemical, and biological characteristics of surface waters, including streams, lakes, and wetlands. Emphasis is placed on understanding effects of water quality on ecosystem structure and function.

NRMT 460 Principles of Wildlife Management (3) Three hours of lecture per week. Three Saturday field trips are scheduled. Prerequisite: two semesters of biology laboratory or permission of department. Ecological principles and requirements of wildlife as basis for management, and introduction to the scientific literature. Conflicts in wildlife management, government administration of wildlife resources, legislation, and history of the wildlife management profession.

NRMT 461 Urban Wildlife Management (3) Two lectures per week. Two Saturday field trips are scheduled. Ecology and management of wildlife in urban areas. For students in biological sciences, geography, landscape design, natural resources management, recreation and urban studies. Planning, design, and wildlife conservation in landscape ecology. Public attitudes, preferences, and values, reviews of private conservation organizations.

NRMT 462 Field Techniques in Wildlife Management (2) Four hours of laboratory per week. Recommended: NRMT460 and NRMT461. Junior standing. Credit will be granted for only one of the following: NRMT489B or NRMT462. Formerly NRMT 489B. Hands-on experience with field techniques in wildlife management focusing on various methods of conducting indices, estimates, and censuses of wildlife populations. Includes capture and handling of amphibians, reptiles, birds, and mammals by use of drift fences, cover boards, mist nets, box traps, and dart guns.

NRMT 470 Natural Resources Management (4) 85 semester hours. For NRMT majors only. Field work and independent research on watersheds. Intensive seminar on resource management planning and report preparation.

NRMT 479 Tropical Ecology and Resource Management (1-6) Prerequisites: BSCI106, an introductory economics course, and permission of instructor. Repeatable to 10 credits if content differs. Tropical ecosystems and issues of human use and impact. Includes lectures which lead up to an off-campus trip in a tropical environment.

NRMT 487 Conservation of Natural Resources I (3) Designed primarily for teachers. Study of state's natural resources: soil, water, fisheries, wildlife, forests and minerals; natural resources problems and practices. Extensive field study. Concentration on subject matter. Taken concurrently with NRMT 497 in summer season.

NRMT 489 Field Experience (1-4) Prerequisite: permission of department. Repeatable to 6 credits. Planned field experience for both major and non-major students.

NRMT 499 Special Problems (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs.
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Select Program: PERS - Persian

Course Number: Search

Courses in "PERS-Persian"

PERS - Persian

PERS 101 Elementary Persian I (4) Not open to native/fluent speakers of Persian. Credit will be granted for only one of the following: PERS101 or FOLA138K. Formerly FOLA 138K. Introduction to the alphabet, pronunciation patterns, greetings, basic structures, and other fundamentals, with emphasis on oral and aural skills.

PERS 102 Elementary Persian II (4) Not open to native/fluent speakers of Persian. Prerequisite: PERS101 or equivalent. Credit will be granted for only one of the following: PERS102 or FOLA139K. Formerly FOLA 139K. Continuation of PERS101 with emphasis on the use of formal language, vocabulary building, and reading.
PERS 201 Intermediate Persian I (4) Not open to native/fluent speakers of Persian. Prerequisite: PERS102 or equivalent. Development of speaking, reading, writing, listening and cultural knowledge through wide variety of activities.

PERS 251 Modern Iran (3) General sociopolitical introduction to modern Iran from establishment of the Qajar dynasty in the late 18th century to the present day. Taught in English.

PERS 283 Iranian Cinema (3) Introduction to Iranian cinema, society, and culture. Taught in English.

PERS 353 Iranian Life in Literature and Film (3) Treats major themes in modern literature and life of Iranians. Topics examined include Iranian identity, religious traditions, modern life, and expatriate communities. In English.

PERS 399 Directed Study in Persian (1-3) Prerequisite: permission of department. Sophomore standing. Repeatable to 9 credits if content differs. Directed study with faculty supervision.

PERS 411 Readings in Iranian Islam (3) Prerequisite: permission of department. In-depth study of Iranian Islam via Islamic texts. Develops competency in speaking, reading, writing, and listening comprehension at advanced level. In Persian.

PERS 452 Modern Persian Literature: A Survey (3) Prerequisite: permission of department. Surveys development of poetry and prose in the Persian-speaking world in modern times. Periods and genres. Content varies. Mastery of Persian is required.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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<table>
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<th>Number</th>
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<td>000-099</td>
<td>Non-credit course</td>
</tr>
<tr>
<td>100-199</td>
<td>Primarily freshman course</td>
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<td>200-299</td>
<td>Primarily sophomore course</td>
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<tr>
<td>300-399</td>
<td>Junior, senior course not acceptable for credit toward graduate degrees</td>
</tr>
<tr>
<td>386-387</td>
<td>Campus-wide internship courses; refer to information describing Experiential Learning</td>
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<tr>
<td>400-499</td>
<td>Junior, senior course acceptable for credit toward some graduate degree</td>
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<tr>
<td>500-599</td>
<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
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<tr>
<td>600-899</td>
<td>Course restricted to graduate students</td>
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<tr>
<td>799</td>
<td>Master Thesis credit</td>
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<td>899</td>
<td>Doctoral Dissertation credit</td>
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Use the search box below to view the approved courses.

Select Program: PHIL - Philosophy

Course Number: Search

Courses in "PHIL-Philosophy"

PHIL - Philosophy

**PHIL 100 Introduction to Philosophy (3)** An introduction to the literature, problems, and methods of philosophy either through a study of some of the main figures in philosophic thought or through an examination of some of the central and recurring problems of philosophy.

**PHIL 140 Contemporary Moral Issues (3)** The uses of philosophical analysis in thinking clearly about such widely debated moral issues as abortion, euthanasia, homosexuality, pornography, reverse discrimination, the death penalty, business ethics, sexual equality, and economic justice.

**PHIL 170 Introduction to Logic (3)** Development of analytical reasoning skills through study of formal
PHIL 209 Philosophical Issues (3) Repeateable to 6 credits if content differs. An examination of selected philosophical issues of general interest.

PHIL 230 Philosophy of the Arts (3) A survey of theoretical perspectives on the arts from Plato to the present, along with critical examination of specific works of art. Analysis of concepts central to thought about art, such as beauty, form, content, expression, representation, interpretation, creation, style, medium, realism, aesthetic experience, and aesthetic value.

PHIL 233 Philosophy in Literature (3) Reading and philosophical criticism of fiction, poetry, and drama, dealing with issues of moral, religious, and metaphysical significance.

PHIL 234 Fundamental Concepts of Judaism (3) Also offered as JWST250. Not open to students who have completed JWST250. Credit will be granted for only one of the following: PHIL234 or JWST250. A conceptional introduction to Judaism, analyzing its fundamental concepts from both analytical and historical perspectives. Discussion of "normative" Judaism as well as other conceptions of Judaism. Topics include: God, the Jewish people, authority, ethics, the sacred and the profane, particularism and universalism.

PHIL 235 Authority, Faith, and Reason in Judaism (3) Also offered as JWST251. Not open to students who have completed JWST251 or HEBR298J. Credit will be granted for only one of the following: PHIL235 or JWST251. A broad survey of the concepts of authority, faith, and reason in Jewish tradition from the Bible to the modern period, and their interrelationships.

PHIL 236 Philosophy of Religion (3) A philosophical study of some of the main problems of religious thought: the nature of religious experience, the justification of religious belief, the conflicting claims of religion and science, and the relation between religion and morality.

PHIL 245 Political and Social Philosophy I (3) A critical examination of such classical political theories as those of Plato, Hobbes, Locke, Rousseau, Mill, Marx, and such contemporary theories as those of Hayek, Rawls, and recent Marxist thinkers.

PHIL 250 Philosophy of Science I (3) Main issues in the philosophy of science. Special attention to the ways scientific developments have influenced the philosophy of science and how philosophy of science has influenced scientific progress. Case studies of selected historical episodes in which science and philosophy have interacted significantly, focusing on the physical, biological, or social sciences.

PHIL 256 Philosophy of Biology I (3) Issues in the discovery and justification of biological theories and models. Focus on cases from twentieth century biology, such as the genetic revolution or evolutionary theory.

PHIL 261 Philosophy of the Environment (3) Not open to students who have completed HONR218F or PHIL209. Formerly PHIL209. An evaluation of different kinds of arguments for the claim that the natural environment should be preserved. Perspectives cut across the disciplines of philosophy (environmental ethics, philosophies of nature), economics (cost-benefit analysis), and biology (evolution, ecology, environmental studies).

PHIL 271 Symbolic Logic I (3) Prerequisite: PHIL170 or CMSC250; or permission of department. Formerly PHIL 371. The formal analysis of deductive reasoning, providing familiarity with techniques of formal deduction in propositional logic and quantification theory, as well as some knowledge of basic concepts of formal semantics (truth tables, models).

PHIL 273 Logic for Philosophy (3) Major concepts underlying the modern formal logic development by Frege and Russell and their importance in contemporary philosophy.

PHIL 280 Perspectives on the Mind: Philosophy and Cognitive Science (3) The role of representation and reasoning in cognition considered from the differing perspectives of the cognitive-science disciplines: linguistics, philosophy, neuroscience, psychology and computer science.

PHIL 282 Action and Responsibility (3) Problems in ethics and philosophy of mind concerning such topics as personal agency, moral motivation, guilt, free will, and responsibility.

PHIL 308 Studies in Contemporary Philosophy (3) Prerequisite: six credit hours in philosophy. Repeatable to 6 credits if content differs. Problems, issues, and points of view of current interest in philosophy.

PHIL 310 Ancient Philosophy (3) Prerequisite: six credit hours in philosophy or classics. A study of the origins and development of philosophy and science in ancient Greece, focusing on the pre-Socratics, Socrates, Plato, and Aristotle.
PHIL 320 Modern Philosophy (3) Prerequisite: six credit hours in philosophy. A study of major philosophical issues of the 16th, 17th, and 18th centuries through an examination of such philosophers as Descartes, Newton, Hume, and Kant.

PHIL 324 Existentialism (3) Prerequisite: six credit hours in philosophy. A study of authors such as Kierkegaard, Nietzsche, Heidegger, Sarte, and Camus on issues of human morality, freedom, and suffering.

PHIL 328 Studies in the History of Philosophy (3) Prerequisite: six credit hours of philosophy. Repeatable to 6 credits if content differs. Problems, issues, and points of view in the history of philosophy.

PHIL 332 Philosophy of Beauty (3) Prerequisite: six credit hours in philosophy, literature, or the arts. Philosophical theories, historical and contemporary, of beauty, sublimity, and other aesthetic qualities, of aesthetic experience, and of aesthetic judgment.

PHIL 334 Philosophy of Music (3) Prerequisite: three credit hours in philosophy or music. The nature, meaning, and purpose of music. Analysis of the concepts of creativity, form, expression, and representation as they relate to music. Theories of music listening and of musical evaluation. Readings from philosophers, composers, critics, and psychologists.

PHIL 340 Making Decisions (3) Prerequisite: three credit hours in philosophy. An examination of various approaches to decision making in personal, professional, and public life. Conflict resolution, the logic of decision, moral aspects of decision making, and standard biases in judgment.

PHIL 341 Ethical Theory (3) Prerequisite: six credit hours in philosophy. Junior standing. A critical examination of classical and contemporary systems of ethics, such as those of Aristotle, Kant, Mill, and Rawls.

PHIL 342 Moral Problems in Medicine (3) Prerequisite: PHIL100, PHIL140, or permission of department. A critical examination of the moral dimensions of decision-making in health related contexts. Readings are drawn from philosophical, medical, and other sources.

PHIL 347 Philosophy of Law (3) Prerequisite: three credit hours in philosophy. Credit will be granted for only one of the following: PHIL347 or PHIL447. Formerly PHIL 447. Examination of fundamental concepts related to law, e.g. legal systems, law and morality, justice, legal reasoning, responsibility.

PHIL 354 Philosophy of Physics (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: PHYS260 or MATH220 or equivalent; or permission of department. Recommended: PHYS270, PHYS401. Not open to students who have completed PHIL452. Credit will be granted for only one of the following: PHIL354 or PHIL452. An introduction to current issues at the interface of physics and philosophy, associated with our current picture of the physical world as fundamentally quantum mechanical. Topics include the debate between Einstein and Bohr on the objectivity and completeness of the quantum description, nonlocality and Bell's theorem, realism and the measurement problem, irreversibility and the arrow of time.

PHIL 360 Philosophy of Language (3) Prerequisite: PHIL170, PHIL173, or PHIL271. An inquiry into the nature and function of language and other forms of symbolism.

PHIL 362 Theory of Knowledge (3) Prerequisite: PHIL170 and 3 additional credits in Philosophy. Not open to students who have completed PHIL462. Formerly PHIL 462. Some central topics in the theory of knowledge, such as perception, memory, knowledge, and belief, skepticism, other minds, truth, and the problems of induction.

PHIL 364 Metaphysics (3) Prerequisite: six credit hours in philosophy. Not open to students who have completed PHIL464. Formerly PHIL 464. The study of some central metaphysical concepts and issues including the nature and validity of metaphysical thinking, universals, identity, substance, time, God, and reality.

PHIL 366 Philosophy of Mind (3) Prerequisite: six credit hours in philosophy. Not open to students who have completed PHIL380. An introduction to core issues in the philosophy of mind, focusing especially on the basic metaphysical question of dualism versus physicalism.

PHIL 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

PHIL 407 Gay and Lesbian Philosophy (3) An examination in historical and social context of personal, cultural, and political aspects of gay and lesbian life, paying particular attention to conceptual, ontological, epistemological, and social justice issues.

PHIL 408 Topics in Contemporary Philosophy (3) Prerequisite: PHIL320. Repeatable if content differs. An intensive examination of contemporary problems and issues. Source material will be selected from recent
books and articles.

PHIL 412 The Philosophy of Plato (3) Prerequisite: six credit hours in philosophy. A critical study of selected dialogues.

PHIL 414 The Philosophy of Aristotle (3) Prerequisite: six credit hours in philosophy. A critical study of selected portions of Aristotle's writings.

PHIL 416 Medieval Philosophy (3) Prerequisite: six credit hours in philosophy. A study of philosophical thought from the fourth to the fourteenth centuries. Readings selected from Christian, Islamic, and Jewish thinkers.

PHIL 417 The Golden Age of Jewish Philosophy (3) Prerequisite: three credit hours in philosophy or permission of department. Also offered as JWST452. Not open to students who have completed JWST452. Credit will be granted for only one of the following: PHIL417 or JWST452. Jewish philosophy from Maimonides in the 12th century to the expulsion of the Jews from Spain at the end of the 15th century. Topics include the limitations of human knowledge, creation of the world, foreknowledge and free will, and the existence of God.

PHIL 424 The Philosophy of Spinoza (3) Prerequisite: six credit hours in philosophy or permission of department. Also offered as JWST453. Not open to students who have completed JWST453. Credit will be granted for only one of the following: PHIL424 or JWST453. An investigation of the metaphysical, ethical and political thought of the 17th century philosopher Benedict Spinoza.

PHIL 425 Modern Jewish Philosophy (3) Prerequisite: six credit hours in philosophy or permission of department. Also offered as JWST455. Not open to students who have completed JWST455. Credit will be granted for only one of the following: JWST455 or PHIL425. A study of philosophy in the nineteenth century through an examination of such figures as Hegel, Marx, Kierkegaard, Nietzsche, and Mill.

PHIL 426 Twentieth Century Analytic Philosophy (3) Prerequisite: permission of department. Senior standing. Credit will be granted for only one of the following: PHIL326 or PHIL426. Formerly PHIL 326. Major issues in twentieth century analytic philosophy examined through such philosophers as Frege, Russell, Carnap, Moore and Wittgenstein.

PHIL 427 Wittgenstein (3) Prerequisite: six credit hours in philosophy or permission of department. The early and late works of Wittgenstein: atomism, logic, and the picture theory in the Tractatus; roles, meaning, criteria, and the nature of mental states in the Philosophical Investigations and other posthumous writings.

PHIL 428 Topics in the History of Philosophy (3) Prerequisites: PHIL310 and PHIL320; or permission of department. Repeatable if content differs.

PHIL 431 Aesthetic Theory (3) Prerequisite: nine credits in philosophy or permission of department. Study of the theory of the aesthetic as a mode of apprehending the world and of the theory of criticism, its conceptual tools and intellectual presuppositions.

PHIL 433 Issues in Jewish Ethics and Law (3) Prerequisite: three credit hours in philosophy or Jewish studies (excluding Hebrew language), or permission of department. Also offered as JWST451. Not open to students who have completed JWST451 or HEBR451. Credit will be granted for only one of the following: PHIL433, HEBR451 or JWST451. Philosophical and meta-legal questions concerning the nature of Jewish law and its relation to morality.

PHIL 440 Contemporary Ethical Theory (3) Prerequisite: PHIL341. Contemporary problems having to do with the meaning of the principal concepts of ethics and with the nature of moral reasoning.

PHIL 445 Contemporary Political Philosophy (3) Prerequisite: three credit hours in philosophy or political theory or permission of department. Sophomore standing. Major trends in contemporary political philosophy: liberal, libertarian, communitarian, socialist, feminist.

PHIL 446 Law, Morality, and War (3) Prerequisite: GVPT300, GVPT401, PHIL341, or permission of department. Also offered as GVPT403. An exploration of fundamental moral and legal issues concerning war.

PHIL 450 Scientific Thought I (3) Prerequisite: three credit hours in philosophy or a major in science. The development of science, its philosophical interpretations and implications, and views of its methods, from the ancients through Newton and Leibniz.

PHIL 451 Scientific Thought II (3) Prerequisite: three credit hours in philosophy or a major in science. The development of science, its philosophical interpretations and implications, and views of its methods, from the death of Newton to the early twentieth century.

PHIL 453 Philosophy of Science II (3) Prerequisite: PHIL250, an upper-level course in philosophy, or a
major in science. A comprehensive survey of developments in the main problems of the philosophy of science from logical positivism to the present. The nature of theories, models, laws, and counterfactuals, testing, inductive logic, and confirmation theory, experimental methodology, measurement, explanation, concept formation, growth of scientific knowledge, and scientific realism.

PHIL 454 Philosophy of Space and Time (3) Prerequisite: six credit hours in philosophy. Senior standing. A non-technical investigation of philosophical issues in the foundations of physics. Topics may include traditional philosophical problems of space and time, metaphysical issues about the nature of particles and fields, and philosophical problems associated with the introduction of probability into physics, such as the problem of irreversibility in thermodynamics and the problem of objectivity in quantum theory.

PHIL 456 Philosophy of Biology II (3) Prerequisite: PHIL250 or PHIL256 or a Life Science major or permission of department. Questions about concepts, reasoning, explanation, etc., in biology, and their relations to those of other areas of science. Case studies of selected aspects of the history of biology, especially in the twentieth century.

PHIL 458 Topics in the Philosophy of Science (3) Prerequisite: PHIL250 or permission of department; when the topic for a given semester demands, additional philosophical or scientific prerequisites may be required by the instructor. Repeatable to 6 credits if content differs. A detailed examination of a particular topic or problem in philosophy of science.

PHIL 461 Theory of Meaning (3) Prerequisite: six credit hours in philosophy. Theories about the meaning of linguistic expressions, including such topics as sense and reference, intentionality and necessity, and possible-world semantics, through an examination of such writers as Mill, Frege, Wittgenstein, Quine, and Kripke.

PHIL 470 Logical Theory (3) Prerequisite: PHIL271 or permission of instructor. This course will treat a selection of the most important topics in modern logic: alternative proof-theoretic presentations of logical systems, completeness proofs for classical propositional and first-order logic, some basic computability theory, basic limiting results (such as Godel's incompleteness theorems), and some results concerning second-order logic. The primary focus of the course is a study of these fundamental topics, but we will also discuss some of the philosophical issues they raise.

PHIL 474 Induction and Probability (3) Prerequisite: permission of department. A study of inferential forms, with emphasis on the logical structure underlying such inductive procedures as estimating and hypothesis-testing. Decision-theoretic rules relating to induction will be considered, as well as classic theories of probability and induction.

PHIL 478 Topics in Philosophical Logic (3) Prerequisite: PHIL271 or permission of department. Recommended: PHIL470. Repeatable to 9 credits if content differs. Methods and results of philosophical logic, content will vary, either treating a particular logical area in detail--such as modal logic, conditional logic, deontic logic, intuitionistic or relevance logic, theories of truth and paradox--or surveying a number of these different areas.

PHIL 480 Philosophy of Emotion (3) Prerequisite: six credit hours in philosophy, at least one 300-level or above; or permission of department. Philosophic contributions to the debate about the nature of emotions and their role in rational and moral motivation.

PHIL 481 Philosophy of Psychology: Representation (3) Prerequisite: six credit hours in philosophy; one of which must be PHIL280 or PHIL366. Semantics and representations within computational framework: intentionality, explicit vs. implicit representation, syntax vs. semantics of thought, connectionist approaches, images, classical vs. prototype theories of concepts.

PHIL 482 Philosophy of Psychology: Subjectivity (3) Prerequisite: six credit hours in philosophy; one of which must be PHIL280 or PHIL366. The nature of subjectivity: problems of "point of view," the "qualities" or "feel" of things, emotions, consciousness - whether these phenomena can be captured by a computational theory of mind.

PHIL 484 Reason, Self and Will (3) Prerequisite: six credit hours in philosophy courses, at least one 300-level or above; or permission of department. Issues in philosophy of mind, ethics, and neighboring areas of psychology and related fields concerning such topics as: autonomy, freedom of action, free will; weakness of will and practical reasoning; the nature of the self or person; the sources of moral motivation.

PHIL 485 Philosophy of Neuroscience (3) Prerequisite: six credit hours in philosophy, one of which should be PHIL250, PHIL256, PHIL280, or PHIL366; or permission of department. Philosophical and methodological issues relating to brain science, including: the place of neuroscience in cognitive science, the nature of mental representation and processing in brains, bounded-resonance models in neuroanatomy and neurophysiology.

PHIL 488 Topics in Philosophy of Cognitive Studies (3) Prerequisite: three credit hours in philosophy or
permission of department. Repeatable to 9 credits if content differs. Examination of a particular topic or problem in philosophy of cognitive studies.

**PHIL 489 Undergraduate Seminar in Philosophy (3-6)** Prerequisite: permission of department. Repeatable to 6 credits if content differs. An intensive examination of a philosophical topic or topics.

**PHIL 498 Topical Investigations (1-3)**
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: PHYS - Physics

Course Number: 

Search

Courses in "PHYS-Physics"

PHYS - Physics

PHYS 101 Contemporary Physics - Revolutions in Physics (3) Prerequisite: eligibility for placement in MATH140 or MATH220. Not open to students who have completed PHYS111. For non-science students who are interested in the evolution of scientific thought and its present day significance. Historical, philosophic, experimental and theoretical aspects of physics are presented. Topics in mechanics, relativity, electricity and magnetism, and nuclear physics are covered.

PHYS 102 Physics of Music (3) Prerequisite: Placement in MATH110 or higher. Credit not applicable towards the minimum requirements for a major in physics and astronomy. A study of the physical basis of sound, acoustical properties of sound, the human ear and voice, reproduction of sound, electronic music, acoustical properties of auditoriums, and other selected topics.
PHYS 103 Physics of Music Laboratory (1) Two hours of laboratory per week. Pre- or corequisite: PHYS102. Credit not applicable towards the minimum requirements for a major in physics and astronomy. Optional laboratory to accompany PHYS 102. Laboratory experiments, including the velocity of sound, sound quality and wave shape, traveling and standing waves, fourier synthesis and analysis, musical synthesizer, psychoacoustics, and audio equipment.

PHYS 104 How Things Work: Science Foundations (3) Prerequisite: Placement in MATH110 or higher. This is a course with a non-mathematical emphasis designed to study the basics of mechanical, electrical, and optical devices that are commonly found in the world around us. The general approach would be to look inside things to observe how they work.

PHYS 106 Light, Perception, Photography, and Visual Phenomena (3) Credit not applicable towards the minimum requirements for a major in physics and astronomy. Intended for the general student, this course will cover topics in optics which require minimal use of mathematics. Principles of optics, lenses, cameras, lasers and holography, physics of the eye, color vision and various visual phenomena such as rainbows.

PHYS 107 Light, Perception, Photography and Visual Phenomena Laboratory (1) Two hours of laboratory per week. Pre- or corequisite: PHYS106. Credit not applicable towards the minimum requirements for a major in physics and astronomy. Optional laboratory to accompany PHYS106. Laboratory experiments include geometrical optics (lenses, cameras, eye), optical instruments (telescope, binoculars), photography, perception, color phenomena, and wave phenomena.

PHYS 111 Physics in the Modern World (3) A survey course in general physics emphasizing the role that physics plays in science, technology, and society today. The course is concept oriented and minimal use of mathematics is made. Intended for the general student; does not satisfy the requirements of the professional schools.

PHYS 115 Inquiry into Physics (4) Five hours of laboratory per week. Recommended: High school physics. For elementary education, early childhood majors only. Not open to students who have completed PHYS117. Credit will be granted for only one of the following: PHYS115 or PHYS117. Intended for students majoring in neither the physical nor the biological sciences. Use of laboratory-based and inquiry-based methods to study some of the basic ideas of physical sciences.

PHYS 117 Introduction to Physics (4) Three hours of lecture and two hours of laboratory per week. Prerequisite: qualification to enter MATH110. Intended for students majoring in neither the physical nor biological sciences. A study of the development of some of the basic ideas of physical science.

PHYS 118 Fundamentals of Physics I (4) Three hours of lecture, two hours of laboratory, and one hour of discussion/recitation per week. Prerequisite: MATH112 or MATH115. The first part of a two-semester course in general physics treating the fields of mechanics, heat, sound, electricity, magnetism, optics, and modern physics. Together with PHYS122, this generally satisfies the minimum requirement of medical and dental schools.

PHYS 122 Fundamentals of Physics II (4) Three hours of lecture, two hours of laboratory, and one hour of discussion/recitation per week. Prerequisite: PHYS121 or equivalent. A continuation of PHYS121, which together with it, generally satisfies the minimum requirement of medical and dental schools.

PHYS 141 Principles of Physics (4) Three hours of lecture, two hours of laboratory, and one hour of discussion/recitation per week. Corequisite: MATH141 or MATH221. Credit will not be granted for PHYS171 and PHYS161 or PHYS141 or former PHYS191. The first of a two-semester series in general physics. The first semester covers the fields of mechanics, thermodynamics, and special relativity. This survey course will use calculus and is recommended for chemistry and zoology majors. It also satisfies the requirements of medical and dental schools.

PHYS 142 Principles of Physics (4) Prerequisite: PHYS141 or equivalent. Credit will be granted for only one of the following: PHYS142, PHYS260 and PHYS261 (formerly: PHYS262) or PHYS272. A continuation of PHYS141 covering waves, electricity and magnetism, optics and modern physics.

PHYS 161 General Physics: Mechanics and Particle Dynamics (3) Three hours of lecture and one hour of discussion/recitation per week. Pre- or corequisite: MATH141. Credit will not be granted for PHYS171 and PHYS161 or PHYS141 or former PHYS191. First semester of a three-semester calculus-based general physics course. Laws of motion, force, and energy; principles of mechanics, collisions, linear momentum, rotation, and gravitation.

PHYS 165 Introduction to Programming in the Physical Sciences (3) Prerequisite: PHYS141, PHYS161 or PHYS171; or 3-5 on AP PHYS exam. Introduction to programming using examples in the physical sciences. Provides instruction in the techniques of upper-level languages such as Fortran, C, and Pascal, as well as an introduction to the object oriented programming techniques used in Python, C++ and Java. Includes strong component of visualization and graphing.
PHYS 170 Professional Physics Seminar (1) Corequisite: MATH140. Recommended: high school physics. Provides a look at some of the major developments of current interest in physics research and discusses the activities physicists undertake in research, education, industry, government, and other areas of the economy.

PHYS 171 Introductory Physics: Mechanics and Relativity (3) Prerequisite: MATH140 and a high school physics course or permission of department. Corequisite: MATH141. Credit will not be granted for PHYS171 and PHYS161, or PHYS141 or former PHYS101. First semester of a three semester sequence for physics majors and those desiring a rigorous preparation in the physical sciences: kinematics, Newton's laws, energy and work, linear and angular momenta, temperature and pressure, ideal gas law, and special relativity.

PHYS 174 Physics Laboratory Introduction (1) Three hours of laboratory per week. Corequisite: MATH140. Recommended: high school physics. Introduces students to the techniques of data gathering and analysis. This course will lay a foundation for higher-level labs in physics and the physical sciences. Students will learn to use laboratory equipment such as calipers, meters, oscilloscopes, and computer interfaces. Techniques of measurement and error analysis will be presented. Students will be taught to use the computer for data analysis with an emphasis on using spreadsheets.

PHYS 260 General Physics: Vibration, Waves, Heat, Electricity and Magnetism (3) Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: MATH141 and PHYS161. Corequisite: PHYS261. Credit will be granted for only one of the following: PHYS142; PHYS260 and PHYS 261 (Formerly: PHYS262) or PHYS272. Formerly PHYS 262. Second semester of a three-semester calculus-based general physics course. Vibrations, waves, fluids; heat, kinetic theory, and thermodynamics; electrostatics, circuits, and magnetism. PHYS260 and PHYS261 must be taken in the same semester and the grade for the courses will be combined into a single grade for both. To pass, students must complete passing work in both PHYS260 and PHYS261.

PHYS 261 General Physics: Vibrations, Waves, Heat, Electricity and Magnetism (Laboratory) (1) Three hours of laboratory per week. Corequisite: PHYS260. Formerly PHYS 262A. Lab includes experiments on mechanics, vibrations, heat, electricity and magnetism. PHYS260 and PHYS261 (lab) must be taken in the same semester and the grade for the courses will be combined into a single grade for both. To pass, students must complete passing work in both PHYS260 and PHYS261.

PHYS 270 General Physics: Electrodynamics, Light, Relativity and Modern (3) Physics Three hours of lecture and one hour of discussion/recitation per week. Prerequisite: PHYS260, PHYS261 and MATH241. Corequisite: PHYS271. Credit will be granted for only one of the following: PHYS270 and PHYS271 (Formerly: PHYS263) or PHYS273. Formerly PHYS 263. Third semester of a three-semester calculus-based general physics course. Electrodynamics, Maxwell's equations and electromagnetic waves, geometrical optics, interference, diffraction, special theory of relativity, and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester and the grade for the courses will be combined into a single grade for both. To pass, students must complete passing work in both PHYS270 and PHYS271.

PHYS 271 General Physics: Electrodynamics, Light, Relativity and Modern (Laboratory) (1) Three hours of laboratory per week. Corequisite: PHYS270. Formerly PHYS263A. Lab includes experiments on ac circuits, magnetism, light and modern physics. PHYS270 and PHYS271 (lab) must be taken in the same semester and the grade for the courses will be combined into a single grade for both. To pass, students must complete passing work in both PHYS270 and PHYS271.

PHYS 272 Introductory Physics: Fields (3) Prerequisites: (PHYS171 or PHYS161) and MATH141. Corequisite: MATH241. Credit will be granted for only one of the following: PHYS272 or PHYS260 and PHYS261 (Formerly: PHYS262 or PHYS142. Second semester of a calculus based general physics course. Universal gravitation, electric and magnetic fields and potentials; simple circuits. Maxwell's equations in integral form. Continues the application of mathematics to conceptual models, now with more abstract components.

PHYS 273 Introductory Physics: Waves (3) Prerequisites: PHYS272, and MATH241. Corequisites: MATH246 or MATH414. Credit will be granted for only one of the following: PHYS270 and PHYS271 (Formerly: PHYS263) or PHYS273. Oscillations and AC circuits using complex variables, Fourier series and integrals, waves on strings, sound; electromagnetic waves from Maxwell's equations in differential form; physical optics.

PHYS 275 Experimental Physics I: Mechanics and Heat (2) One hour of lecture and three hours of laboratory per week. Prerequisites: (PHYS171 or PHYS161) and PHYS174. Corequisite: PHYS272. Methods and rationale of experimental physics. Intended for physics majors and science and engineering students who desire a more rigorous approach. Experiments chosen from the areas of mechanics (from PHYS171), gas laws, and heats. Theory and applications of error analysis. CORE Physical Science Lab (PL) Course only when taken concurrently with PHYS272.

PHYS 276 Experimental Physics II: Electricity and Magnetism (2) Four hours of laboratory per week. Prerequisites: PHYS272 and PHYS275. Credit will be granted for only one of the following: PHYS276 or former PHYS295. Second course in the three semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the fields of electricity and magnetism including electrostatics, magnetostatics, magnetic induction, AC circuits.
PHYS 299 Special Problems in Physics (1-6) Prerequisite: permission of department. May be taken no more than twice. Maximum of eight credits applicable to B.S. degree program. Research or special study to complement courses taken elsewhere which are not fully equivalent to those in departmental requirements. Credit according to work done.

PHYS 305 Physics Shop Techniques (1) Three hours of laboratory per week. Prerequisite: permission of department. Machine tools, design and construction of laboratory equipment.

PHYS 318 Topics in Contemporary Physics (3) Prerequisite: PHYS122 and/or PHYS111 or permission of department. A survey of topics of current research and public interest. Intended for the non-physics or non-science major. Topics covered will include lasers, quantum liquids, cosmology, elementary particles and geophysics.

PHYS 374 Intermediate Theoretical Methods (4) Three hours of lecture and one hour of discussion/recitation per week. Prerequisites: PHYS273 and MATH246. Corequisite: MATH240. Introduces or reviews areas of mathematics that are regularly used in upper level and graduate courses in physics, including important areas from complex variables, Fourier analysis, partial differential equations and eigenvalue problems. These methods will be studied in the context of relevant physics applications. A current standard symbolic manipulation program will be introduced and its appropriate use in theoretical analyses will be taught.

PHYS 375 Experimental Physics III: Electromagnetic Waves, Optics and Modern (3) Physics Six hours of laboratory per week. Prerequisites: PHYS273 and PHYS276. Credit will be granted for only one of the following: PHYS375 or former PHYS296. Third course in the three-semester introductory sequence. Methods and rationale of experimental physics. Experiments chosen from the areas of electromagnetic waves, optics and modern physics.

PHYS 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

PHYS 389 Undergraduate Thesis Research (1-6) Prerequisite: permission of department. For PHYS majors only. Repeatable to 6 credits. Independent directed research and study on a topic selected by the student in consultation with his or her advisor. Final written thesis and oral defense will be expected.

PHYS 398 Independent Studies Seminar (1-16) Credit according to work done. Enrollment is limited to students admitted to the independent studies program in physics.

PHYS 399 Special Problems in Physics (1-3) Two hours laboratory work per week for each credit. Prerequisite: PHYS405 and permission of department. One to three credits may be taken concurrently each semester. Selected advanced experiments. (Will be given with sufficient demand.)

PHYS 401 Quantum Physics I (4) Prerequisite: PHYS273. Corequisites: PHYS374 and MATH240. Credit will be granted for only one of the following: PHYS401 or PHYS421. Formerly PHYS 421. Introduces some quantum phenomena leading to wave-particle duality. Schroedinger theory for bound states and scattering in one dimension. One-particle Schroedinger equation and the hydrogen atom.

PHYS 402 Quantum Physics II (4) Prerequisites: PHYS401, and PHYS374, and MATH240. Credit will be granted for only one of the following: PHYS402 or former PHYS422. Formerly PHYS 422. Quantum states as vectors; spin and spectroscopy, multiparticle systems, the periodic table, perturbation theory, band structure, etc.

PHYS 404 Introduction to Statistical Thermodynamics (3) Prerequisites: PHYS273 or equivalent, and MATH241. Credit will be granted for only one of the following: PHYS404 or former PHYS414. Formerly PHYS 414. Introduction to basic concepts in thermodynamics and statistical mechanics.

PHYS 405 Advanced Experiments (3) Prerequisite: PHYS375. For PHYS majors only. Formerly PHYS 395. Advanced laboratory techniques. Selected experiments from many fields of modern physics. Emphasis on self-study of the phenomena, data analysis, and presentation in report form.


PHYS 411 Intermediate Electricity and Magnetism (4) Prerequisite: PHYS274. Foundations of electromagnetic theory, with extensive applications of the methods. Thorough treatment of wave properties of solutions of Maxwell’s equations.

PHYS 420 Principles of Modern Physics (3) Prerequisite: PHYS270 and PHYS271 (formerly: PHYS263) or PHYS273); and MATH246. A survey of atomic and nuclear phenomena and the main trends in modern physics. Appropriate for students in engineering and other physical sciences.
PHYS 426 Mathematica for Scientists and Engineers (3) Prerequisites: PHYS270 and PHYS271 (formerly: PHYS263 or PHYS273) and MATH241. Provides a working knowledge of the powerful symbolic, numerical, and graphical tools provided by Mathematica for problem solving in science and engineering, and the ability to use functional programming, pattern matching, and rule sets for symbolic and numerical computations. Intended for science and engineering students who are currently taking advanced undergraduate or graduate courses in their field.

PHYS 428 Physics Capstone Research (2-4) Prerequisite: permission of instructor. Senior standing. For PHYS majors only. Repeatable to 4 credits. Individual, focused research under the guidance of a faculty member. Discussion, presentations and, if appropriate, research group projects involved. Student must submit final research paper for completion of course. Paper may also serve as thesis required for High Honors in Physics. Not intended as a general "reading course" (see PHYS499).

PHYS 429 Atomic and Nuclear Physics Laboratory (3) Prerequisite: PHYS405. Classical experiments in atomic physics and more sophisticated experiments in current techniques in nuclear physics.

PHYS 431 Properties of Matter (3) Prerequisites: MATH241 and (PHYS270 and PHYS271 (formerly: PHYS263)), PHYS 401 or PHYS420. Also offered as ENMA460. Credit will be granted for only one of the following: ENMA460 or PHYS431. Introduction to solid state physics. Electromagnetic, thermal, and elastic properties of metals, semiconductors, insulators and superconductors.

PHYS 474 Computational Physics (3) Prerequisite: permission of department. Credit will be granted for only one of the following: PHYS474 or PHYS499C. Formerly PHYS 499C. Introduction to computational physics. Topics covered include numerical integration of ordinary and partial differential equations, image analysis, Fourier transforms, statistical methods, analysis of data using prepackaged routines, and the Unix programming environment. Emphasis is on the equations of physical systems as applied to physics and astronomy, and on manipulation of laboratory and observational field data. Students complete semester projects.

PHYS 483 Biophysics and Theoretical Biology (3) Designed for advanced and mature students who may have only minimal knowledge of biological processes but are well grounded in physics. Areas in bioscience where physics, biophysical chemistry, and mathematical analysis fuse to provide definition for biologic statics and dynamics.

PHYS 485 Electronic Circuits (4) Two hours of lecture and four hours of laboratory per week. Prerequisite: PHYS405. Corequisite: PHYS301 or PHYS374. Theory and application to experimental physics of modern semiconductor analog and digital circuits. Emphasis on understanding passive and active elements in practical circuits. Topics span the range from simple transistor circuits to microcomputers.

PHYS 499 Special Problems in Physics (1-16) For PHYS majors only. Research or special study. Credit according to work done.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

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<tr>
<td>000-099</td>
<td>Non-credit course</td>
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<tr>
<td>100-199</td>
<td>Primarily freshman course</td>
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<td>200-299</td>
<td>Primarily sophomore course</td>
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<td>300-399</td>
<td>Junior, senior course not acceptable for credit toward graduate degrees</td>
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<tr>
<td>386-387</td>
<td>Campus-wide internship courses; refer to information describing Experiential Learning</td>
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<tr>
<td>400-499</td>
<td>Junior, senior course acceptable for credit toward some graduate degree</td>
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<tr>
<td>500-599</td>
<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
</tr>
<tr>
<td>600-899</td>
<td>Course restricted to graduate students</td>
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<tr>
<td>799</td>
<td>Master Thesis credit</td>
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<tr>
<td>899</td>
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Use the search box below to view the approved courses.

Select Program: PLSC - Plant Sciences

Course Number: 

Search

Courses in "PLSC-Plant Sciences"

PLSC - Plant Sciences

PLSC 100 Introduction to Horticulture (4) Two hours of lecture and two hours of laboratory per week. An overview to the art and science of horticulture. Relationships between plant science and plant production, the use of horticultural plants and plant stress as influenced by cultural practices.

PLSC 101 Introductory Crop Science (4) Two hours of lecture and two hours of laboratory per week. Major crop plants including: anatomy, physiology, morphology, history, use, adaptation, culture, improvement and economic importance.

PLSC 171 Introduction to Urban Forestry (4) Three hours of lecture and three hours of laboratory per
week. Not open to students who have completed NRSC271. Credit will be granted for only one of the following: NRSC171, NRSC271, or PLSC171. Formerly NRSC 171. An introduction to the practice and importance of urban forestry. Topics range from broad aspects of natural resource issues affecting the urban ecosystem to the management and maintenance of urban tree plantings.

**PLSC 200 Land Surveying (2)** One hour of lecture and two hours of laboratory per week. Understanding the principles of land surveying such as measurements of distance, elevation and angles, instrumentation, and mapping.

**PLSC 201 Plant Structure and Function (4)** Three hours of lecture and three hours of laboratory per week. Prerequisite: PLSC100 or PLSC101; and CHEM103 or CHEM131 and CHEM132. Not open to students who have completed NRSC201. Formerly NRSC 201. The relationship between plant structure and function and how the environment influences changes in the physiology to control higher plant growth and development are studied.

**PLSC 202 Management of Horticultural Crops (4)** Three hours of lecture and three hours of laboratory per week. Prerequisite: PLSC100. Recommended: BSCI105. A study of the principles and practices used in the production of horticultural crops. Management of soils and soilless media, vegetative and reproductive growth and development, pests, harvest, post-harvest environment and marketing will be presented for model commodities.

**PLSC 203 Plants, Genes and Biotechnology (3)** Prerequisite: BSCI103 or BSCI105. Not open to students who have completed NRSC203. Formerly NRSC 203. An overview of the history, genetics, and reproductive mechanisms for agronomic and horticultural plants that examines mechanisms of genetic improvement ranging from traditional plant breeding to tissue culture and genetic engineering. Social and political issues such as germplasm preservation and international intellectual property rights will also be discussed.

**PLSC 253 Woody Plants for Mid-Atlantic Landscapes I (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: PLSC100. A field and laboratory study of trees, shrubs, and vines used in ornamental plantings. Major emphasis is placed on native deciduous plant materials.

**PLSC 254 Woody Plants for Mid-Atlantic Landscape II (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: PLSC100 and PLSC253; or permission of instructor. A field and laboratory study of trees, shrubs, and vines used in ornamental plantings. Major emphasis is placed on introduced and evergreen plant materials.

**PLSC 255 Landscape Design and Implementation (4)** Two hours of lecture and four hours of laboratory per week. Prerequisite: PLSC253 or PLSC254. Not open to students who have completed LARC141 and LARC341. Principles of landscape architecture applied to residential and commercial landscaping: informal and formal designs and plan graphics.

**PLSC 271 Plant Propagation (3)** Two hours of lecture and three hours of laboratory per week. Prerequisites: BSCI105 and PLSC100. A study of the principles and practices in the propagation of plants.

**PLSC 272 Principles of Arboriculture (3)** Two hours of lecture and three hours of laboratory per week. Prerequisite: NRSC171 and PLSC100. Recommended: ENST200. Not open to students who have completed NRSC272. Formerly NRSC 272. The establishment and maintenance of healthy trees in an urban setting will be studied. Lectures will focus on the environmental constraints to tree development in the city, and the role of physiological processes in regulating tree vigor. Laboratory exercises will cover the unique aspects of urban soils, tree valuation procedures, pruning and training, and supervised climbing.

**PLSC 303 International Crop Production (3)** Prerequisite: BSCI105 or equivalent. An introduction to the biological dimension of world hunger. The problems and potentials for increasing world food supply based on current agronomic knowledge. Emphasis on international aspects of food crop production and the interrelationships between agriculture and human populations in the developing world.

**PLSC 305 Introduction to Turf Management (3)** Two hours of lecture and two hours of laboratory per week. Principles of turf culture. Identification and uses of turfgrass species; turfgrass fertilization, cultivation, mowing and establishment; and the identification of turf pests.

**PLSC 320 Principles of Site Engineering (3)** One hour of lecture and five hours of laboratory per week. Prerequisites: LARC140 or PLSC255 and PLSC200. For PLSC and NRSC majors only. The study and application of landscape construction principles as applied to grading, drainage, layout and vehicular and pedestrian circulation.

**PLSC 321 Landscape Structures and Materials (3)** One hour of lecture and five hours of laboratory per week. Prerequisite: PLSC320. Also offered as LARC321. Credit will be granted for only one of the following: LARC321, or PLSC321. An examination of the use, properties, and detailing of materials used in landscape construction. The use and design of structures in the landscape.

**PLSC 361 Commercial Principles of Landscape Management (3)** Two hours of lecture and three hours...
PLSC 388 Honors Thesis Research (3-6) Prerequisite: admission to AGNR Honors Program. Repeatable to 6 credits if content differs. Undergraduate honors thesis research conducted under the direction of an AGNR faculty member in partial fulfillment of the requirements of the College of AGNR Honors Program. The thesis will be defended to a faculty committee.

PLSC 389 Internship (1-3) Prerequisite: permission of department. Junior standing. For NRSC and LARC majors only. Repeatable to 6 credits if content differs. Formerly NRSC 389. Credit will be given for practical work carried out at one or more horticultural, agronomic, landscape industries, botanical gardens, or arboreta under formally arranged internships.

PLSC 398 Seminar (1) Prerequisite: senior standing. For NRSC and LARC majors only. Formerly NRSC 398. Oral presentation of the results of investigational work by reviewing recent scientific literature in the various phases of natural resource sciences, horticulture and agronomy.

PLSC 399 Special Problems in Plant Science (1-3) Prerequisite: Twelve credits in PLSC and permission of instructor. For NRSC majors only. Repeatable to 6 credits. Research projects in Plant Science including field, greenhouse, laboratory, studio and/or library studies. Research is conducted under the direction of a faculty member.

PLSC 400 Environmental Plant Physiology (3) Two hours of lecture and two hours of laboratory per week. Not open to students who have completed NRSC401. Formerly NRSC 401. An introduction to the basic physical and physiological principles necessary for understanding the interactions between plants and their environment. The overall objective is to understand plant responses and adoptions to the environment and the ecological relevance of these responses.

PLSC 401 Pest Management Strategies for Turfgrass (3) Prerequisite: PLSC305. Interdisciplinary view of weed, disease, and insect management from an agronomy perspective. Plant responses to pest invasion, diagnosis of pest-related disorders, and principles of weed, disease and insect suppression through cultural, biological and chemical means are discussed.

PLSC 402 Sports Turf Management (3) Two hours of lecture and three hours of laboratory per week. Prerequisite: PLSC305 and PLSC401. Sports turf management, including design, construction, soil modification, soil cultural techniques, pesticide use, fertilization, and specialized equipment.

PLSC 403 Crop Breeding (3) Pre- or corequisite: BSCI222 or equivalent or permission of department. A review of genetic principles and descriptions of contemporary and traditional methods of breeding self-pollinated, cross-pollinated, and vegetatively propagated crop plants.

PLSC 406 Forage Crops (3) Prerequisite: BSCI105. Recommended: BSCI106. World grasslands and their influence on early civilizations; current impact on human food supply; role of forages in soil conservation and a sustainable agriculture. Production and management requirements of major grass and legume species for silage and pasture for livestock feed. Cultivar development, certified seed production and distribution.

PLSC 407 Cereal and Oil Crops (3) Prerequisite: BSCI105 and PLSC101. A study of principles of production for corn, small grains, rice, millets, sorghums, soybeans and other oil seed crops. A study of seed production, processing, distribution, and federal and state seed control programs of corn, small grains and soybeans.

PLSC 410 Commercial Turf Maintenance and Production (3) Two hours of lecture and three hours of laboratory per week. Prerequisite: PLSC305 or permission of department. Agronomic programs and practices used in hydroseeding, commercial lawn care, sod production and seed production. Current environmental, regulatory and business management issues confronting the turfgrass industry.

PLSC 420 Principles of Plant Pathology (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: CHEM104 or CHEM113 or CHEM271 and CHEM272; and PLSC201 or equivalent. Not open to students who have completed NRSC410. Formerly NRSC 410. An introduction to the causal agents, nature and management of plant diseases with particular attention paid to economically important diseases of horticultural and agronomic crops.

PLSC 430 Water and Nutrient Planning for the Nursery and Greenhouse Industry (3) Two hours of lecture and three hours of discussion/recitation per week. Prerequisite: CHEM131 and CHEM132; or ENST200; or permission of instructor. Recommended: PLSC456 or PLSC432. Not open to students who have completed NRSC400. Credit will be granted for only one of the following: NRSC400 or PLSC430. Formerly NRSC 400. Skills will be developed in order to write nutrient management plans for the greenhouse and
nursery industry. Completion of this course can lead to professional certification in nutrient planning by the State of Maryland after MDA examinations are passed.

**PLSC 432 Greenhouse Crop Production** (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: PLSC201 (formerly NRSC201) and PLSC202. Pre- or corequisite: BSCI442. The commercial production and marketing of ornamental plant crops under greenhouse, plastic houses and out-of-door conditions.

**PLSC 433 Technology of Fruit and Vegetable Production** (4) Three hours of lecture and three hours of laboratory per week. Prerequisite: PLSC201, PLSC202, PLSC271, and NRSC411 or equivalent. Corequisite: BSCI442. Recommended: ENST200 or equivalent. Junior standing. Credit will be granted for only one of the following: NRSC411 or PLSC433. A critical analysis of research work and application of the principles of plant physiology, chemistry and botany to practical problems in the commercial production of fruit and vegetable crops.

**PLSC 452 Principles of Landscape Establishment and Maintenance** (3) Two hours of lecture and two hours of laboratory per week. Prerequisites: PLSC202, PLSC253, and PLSC254. For NRSC majors only. Establishment and maintenance of landscape plants, stressing the physiological determinants of recommended practices.

**PLSC 453 Weed Science** (3) Two hours of lecture and three hours of laboratory per week. Weed identification, ecology, and control (cultural, mechanical, biological, and chemical methods).

**PLSC 456 Nursery Crop Production** (3) Two lectures a week and four all-day compulsory Saturday laboratories. Prerequisites: PLSC201, PLSC202, and PLSC271 or equivalent. The methods used for producing ornamental plants and an introduction to the different types of commercial nurseries.

**PLSC 471 Forest Ecology** (3) Prerequisite: BSCI106 or PLSC201. An understanding of the forest ecosystem, its structure and the processes that regulate it are provided. It also considers changes that occur in forests, the interaction of environment and genetics in promoting ecosystem sustainability, and the role of human influences on urban forest ecosystems.

**PLSC 472 Capstone-Urban Forest Project Management** (3) Prerequisites: ENST200, PLSC272, and PLSC471. Senior standing. For NRSC majors only. Students will synthesize the ideas and information learned from their studies in urban forestry. Working in teams, students will complete projects involving real-world issues. Student projects will use scientific, social, political and ethical considerations in an interdisciplinary approach to provide solutions to their problem.

**PLSC 473 Woody Plant Physiology** (3) Prerequisite: BSCI442 or PLSC201 or equivalent. Not open to students who have completed NRSC473. Formerly NRSC 473. Concentration is placed on physiological processes important to woody plant growth and development. Emphasis will be placed on current concepts and theories of how woody plants grow and develop, and the critical assessment of current research in woody plant physiology. Course readings will include textbook assignments and selected papers from the current scientific literature.

**PLSC 474 Physiology of Maturation and Storage of Horticultural Crops** (3) Two hours of lecture and two hours of laboratory per week. Pre- or corequisite: BSCI442. The physiological and biochemical changes occurring during storage of horticultural commodities. Application of scientific principles to handling and storage of fresh produce.

**PLSC 475 Silviculture** (4) Three hours of lecture and two hours of laboratory per week. Prerequisite: PLSC100 or BSCI106; or permission of instructor. Recommended: PLSC253 or PLSC254. Junior standing. Silviculture is the science of forest stand dynamics and the biotic and abiotic factors affecting it. Issues addressed will be related to forest stand development, from regeneration to harvesting and the sustainable management for multiple uses. Topics covered will be related to natural and managed stands in both rural and urban environments.

**PLSC 489 Special Topics in Plant Science** (1-3) Repeatable to 6 credits if content differs. A lecture and or laboratory series organized to study a selected phase of Plant Science not covered by existing courses. Credit according to time scheduled and organization of the course.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: PORT - Portuguese

Course Number: 

Search

Courses in "PORT-Portuguese"

PORT - Portuguese

PORT 104 Intensive Elementary Portuguese (5) Five hours of lecture per week. Not open to students who have completed PORT101. Intensive elementary course focusing on basic grammar structures and skills in speaking, listening, reading, and writing. Video and computer materials are integrated into the course.

PORT 204 Intensive Intermediate Portuguese (5) Five hours of lecture per week. Prerequisite: PORT104. Not open to students who have completed PORT203. Intensive intermediate course focusing on appropriate level grammar structures and skills in speaking, listening, reading, and writing. Video and computer materials are integrated into the course. Satisfies ARHU foreign language requirement.
PORT 205 Intermediate Conversation (3) Prerequisite: PORT204 or permission of department. Development of oral skills in Portuguese. Intensive conversation on contemporary issues.

PORT 223 Portuguese Culture (3) Political, social, intellectual, and literary forces shaping culture of contemporary Portugal from the formation of the country to the present. In English.

PORT 224 Brazilian Culture (3) Pluralistic formation of Brazilian culture, based on European, African and Indian contributions. Lectures, discussions, slides, video, and film presentations. In English.

PORT 225 The Cultures of Portuguese-Speaking Africa (3) Cultures of the Portuguese speaking countries of Angola, Cape Verde, Sao Tome e Principe, Guinea-Bissau and Mozambique. Special attention to the development of national cultures in multicultural societies and to the role of women. Conducted in English.

PORT 228 Selected Topics in Latin American Literature and Society (3-6) Repeatable to 6 credits if content differs. Also offered as SPAN228. Credit will be granted for only one of the following: PORT228 or SPAN228. Variable cultural studies topics on literature and society in contemporary Latin America.

PORT 231 Introduction to the Literatures of the Portuguese Language (3) Prerequisite: PORT205 or permission of department. Combinines studies of Brazilian and Portuguese literatures, along with the examination of literary trends, concepts and terms to texts and excerpts of longer works, chosen for their cultural, historical and stylistic interest. Taught in Portuguese.

PORT 234 Issues in Latin American Studies I (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as SPAN234 and LASC234. Credit will be granted for only one of the following: PORT234 or SPAN234 or LASC234. Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions.

PORT 235 Issues in Latin American Studies II (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as SPAN235 or LASC235. Credit will be granted for only one of the following: PORT235 or SPAN235 or LASC235. Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular cultures and revolutionary practices. A continuation of PORT/LASC/SPAN 234, but completion of 234 is not a prerequisite.

PORT 311 Advanced Grammar and Composition (3) Prerequisite: PORT205. Advanced aspects of contemporary grammatical usage. Techniques of writing compositions, descriptions, and commercial and personal letters.

PORT 320 Survey of Portuguese Literature (3) Portuguese poetry, fiction and drama from the twelfth century to the present.

PORT 321 Survey of Brazilian Literature (3) Selected literary texts from the period of formation through nineteenth century romanticism to twentieth century.

PORT 322 African Literature of Portuguese Expression (3) Prerequisite: PORT204. Recommended: PORT205 and PORT225. Representative literary texts (poetry, essay and fiction) from the African nations of Angola, Mozambique, Cape Verde, Guinea-Bissau and Sao Tome e Principe including discussion of acculturated literary discourse, role of literature in the development of national consciousness and use of oral tradition.

PORT 350 History of the Portuguese Language (3) Prerequisite: PORT231 or permission of department. Evolution of the Portuguese language from its formation to present days; differences between Continental, African and Brazilian usages.

PORT 378 Brazilian Cinema (in Translation) (3) Junior standing. The study of Brazilian film from the late 1950s to the present with a special view to the relationship between cinema and social changes. Taught in English.

PORT 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

PORT 399 Independent Study in Portuguese (1-3) Prerequisite: permission of department. Repeatable to 3 credits. Specific readings in literature under the supervision of a faculty member of the department.

PORT 405 Portuguese for Spanish Speakers (3) Intensive basic grammar, reading and auditory comprehension. Native or acquired fluency in Spanish required.

PORT 408 Special Topics in Portuguese Literature (3) Repeatable to 6 credits if content differs. Major
themes and literary developments from the late 18th century to the present.

**PORT 409 Special Topics in Brazilian Literature (3-6)** Major themes and literary development from the late eighteenth century to the present. Specific topic to be announced each time the course is offered.

**PORT 470 Modernism in Brazilian Prose Fiction (3)** Prerequisite: permission of department. Prose of the Modernist movement in Brazil from 1922, including literary, sociological and historical dimensions.

**PORT 476 Africa in Brazil (3)** Junior standing. Not open to students who have completed PORT478A. Cultural expressions resulting from the African presence in Brazil from the sixteenth century to the present, including literature, oral traditions, religion, music, dance, and food.

**PORT 478 Themes and Movements of Luso-Brazilian Literature in Translation (3)** Repeatable to 6 credits if content differs. A study of specific themes and movements either in Portuguese or Brazilian literature, as announced. Designed for students for whom the literatures would be inaccessible in Portuguese.

**PORT 480 Machado de Assis (3)** Prerequisite: permission of department. Fiction of Machado de Assis covering his romantic and realistic periods.

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Chapter 8: Approved Courses

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Select Program:  PSYC - Psychology

Course Number:  

Search

Courses in "PSYC-Psychology"

PSYC - Psychology

PSYC 100 Introduction to Psychology (3) A basic introductory course, intended to bring the student into contact with the major problems confronting psychology and the more important attempts at their solution.

PSYC 108 Honors Seminar (3)

PSYC 200 Statistical Methods in Psychology (3) Prerequisite: PSYC100; and (MATH111 or MATH140 or MATH220) with a C (2.0) or higher. A basic introduction to quantitative methods used in psychological research.
PSYC 206 Developmental Biopsychology (3) Prerequisite: PSYC100. Biological basis of behavioral development in relation to genetic, constitutional, anatomical, physiological, and environmental factors. Emphasis upon both phylogenetic and ontogenetic research findings in biological psychology.

PSYC 221 Social Psychology (3) Prerequisite: PSYC100. The influence of social factors on the individual and on interpersonal behavior. Includes topics such as conformity, attitude change, person perception, interpersonal attraction, and group behavior.

PSYC 301 Biological Basis of Behavior (3) Prerequisites: BSCI105 and PSYC100. An introduction to the anatomical structures and physiological processes that determine behavior. After a study of the basic functioning of the nervous system, the course will examine the acquisition and processing of sensory information, the neural control of movement, and the biological bases of complex behaviors such as sleep, learning, memory, sex, language, and addiction.

PSYC 309 Special Topics in Psychology (1-3) Prerequisite: PSYC100. Sophomore standing. For PSYC majors only. Repeatable to 6 credits if content differs. Topics of current interest which represent extensions of or additions to topics covered in more general topical courses.

PSYC 310 Perception (3) Prerequisite: PSYC100; and (BSCI105, BSCI106, CHEM103 or PHYS121). Not open to students who have completed PSYC410. A survey of phenomena and theories of perception including psychological, anatomical, physiological, and environmental factors important in determining how we perceive the world. Historical background will be examined as well as contemporary research.

PSYC 318 Community Interventions: Theory and Research (3) Prerequisite: PSYC100 and permission of department Restricted to PSYC and WMST majors. Formerly PSYC 309A. Survey and critical examination of a problem in the community and related interventions. Analysis of theory and research relevant to the problem. Historical and current trends discussed. A student who has completed PSYC309 must have permission of the department in order to register PSYC318.

PSYC 319 Community Interventions: Service Learning (3) Two hours of lecture and three hours of volunteer service in the community. Prerequisite: PSYC100, PSYC318 and permission of department Restricted to PSYC and WMST majors. Formerly PSYC 309B. Apply knowledge gained in PSYC318 to provide interventions to individuals dealing with a community problem. Critical analysis of interventions and related research. Ethical and cultural considerations in the provision of services are addressed.

PSYC 332 Psychology of Human Sexuality (3) Prerequisite: PSYC100. A survey of historical and contemporary psychological views on a wide variety of sexual behaviors; theory and research bearing on the relationship between life span psychological development, psychological functioning, interpersonal processes and sexual behaviors; political and social issues involved in current sexual norms and practices.

PSYC 334 Psychology of Interpersonal Relationships (3) Prerequisite: PSYC100. Research, theory and their practical applications pertaining to the development, maintenance and dissolution of human relationships. Processes critical to successful relating (e.g., communication, bargaining, conflict resolution), and issues associated with troubled dyadic relations with equal partners (e.g., jealousy, spouse abuse, divorce).

PSYC 336 Psychology of Women (3) Prerequisite: PSYC100. Also offered as WMST336. Credit will be granted for only one of the following: PSYC336 or WMST336. A survey of the biology, life span development, socialization, personality, mental health, and special issues of women.

PSYC 337 Introduction to Community Psychology (3) Prerequisite: PSYC100. Survey and critical examination of the effects of social process and social structure in community life on individual mental health. Includes theoretical models in community psychology.

PSYC 341 Introduction to Memory and Cognition (3) Prerequisite: PSYC100. An introduction to the basic models, methods of research, and findings in memory, problem-solving, and language and their applications.

PSYC 353 Abnormal Psychology (3) Prerequisite: PSYC100. For PSYC majors only. The nature, diagnosis, etiology, and treatment of mental disorders.

PSYC 354 Cross-Cultural Psychology (3) Prerequisite: PSYC100. Cultural components in theory and research in personality, social, and community psychology. Interplay of individual, ethnic, and cultural factors in psychosocial growth and well-being, cross-cultural and cross-ethnic communication, and counseling and psychotherapeutic interactions.

PSYC 355 Developmental Psychology (3) Prerequisite: PSYC100. Survey of research and theory of psychological development from conception through childhood, stressing physiological, conceptual and behavioral changes, and the social and biological context in which individuals develop.
PSYC 356 Psychology of Adolescence (3) Prerequisite: PSYC355 or permission of department. A description of adolescent development based on research and theory interrelating psychological, intellectual, and social changes during the teen years and the systems dealing with those changes.

PSYC 357 Psychology of Adulthood and Aging (3) Prerequisite: PSYC100. Theory, research, and implications of developmental stability and change in physiological, intellectual, and interpersonal functioning in the social context from early adulthood through the aging years.

PSYC 361 Survey of Industrial and Organizational Psychology (3) Prerequisite: PSYC100. A general survey of the field of industrial organizational psychology including such topics as organizational entry (recruitment, selection, training, socialization), organizational psychology (motivation, leadership, job attitudes), and productivity in the work place (performance appraisal, absenteeism, turnover). The role that the larger environment plays in influencing work behaviors and work attitudes.

PSYC 386 Experiential Learning (1-6) Prerequisite: permission of department. Junior standing.

PSYC 401 Biological Bases of Behavior Laboratory (4) Two hours of lecture and four hours of laboratory per week. Prerequisites: BIOL105; and PSYC200; and PSYC301 or equivalent; and permission of instructor. Restricted to PSYC majors who have completed 85 credits. A laboratory course to introduce students to some of the basic physiological and anatomical techniques of contemporary neuroscience. Exercises look at specific neurons or groups of neurons and how they control such simple behaviors as swimming, prey capture, and species recognition. The lab exercises use living invertebrates and cold-blooded vertebrates.

PSYC 402 Neural Systems and Behavior (3) Prerequisite: PSYC206 or PSYC301. Priority is given to PSYC majors. Credit will be granted for only one of the following: PSYC402. Research on the physiological basis of behavior, including considerations of sensory phenomenon, motor coordination, emotion, drives, and the neurological basis of memory.

PSYC 403 Animal Behavior (3) Prerequisite: PSYC206 or PSYC301. Social interactions, learning, sensory processes, motivation, and experimental methods, with a major emphasis on mammals.

PSYC 404 Introduction to Behavioral Pharmacology (3) Prerequisites: PSYC200 and (PSYC206 or PSYC301). Theoretical viewpoints on the interaction of drugs and behavior. Basic principles of pharmacology, the effects of drugs on various behaviors, experimental analysis of drug dependence and abuse, and neuropharmacology and behavior.

PSYC 406 Neuroethology (3) Prerequisite: BSCI105 or BSCI106. Recommended: PSYC301. For PSYC majors only. A merger between the disciplines of neuroscience and ethology (animal behavior) studies the behavioral functions of nervous systems using a comparative and evolutionary approach. Students will learn how the nervous system controls behavioral patterns in a variety of different organisms ranging from insects to mammals.

PSYC 409 Topics in Neurosciences Seminar (1) Restricted to students in the Minor in Neurosciences. Prerequisite: permission of department. Junior standing. Repeatable to 4 credits if content differs. Current research in neurosciences will be presented, read, and discussed. Emphasis will change each term.

PSYC 410 Experimental Psychology: Sensory Processes I (4) Three hours of lecture and two hours of laboratory per week. Prerequisites: PSYC200; and completion of the English, math and science supporting course sequence. A student who has completed PSYC310 must have permission of department in order to register for PSYC410. Restricted to PSYC majors who have completed 85 credits and permission of instructor. A systematic survey of the content, models, and methodology of sensory and perceptual research.

PSYC 415 History of Psychology (3) Prerequisite: twelve credits in psychology including PSYC 200 or permission of department. Origins of psychology in philosophy and biology, and the development of psychology as a science in the nineteenth and twentieth centuries. Consideration of current theoretical perspectives and experiments in relation to the enduring problems of psychology, and of the role of culture, science, and technology in the development of psychological ideas.

PSYC 420 Experimental Psychology: Social Processes I (4) Two hours of lecture and four hours of laboratory per week. Prerequisite: PSYC200; PSYC221; the completion of the departmentally required math and science supporting course sequence; and 85 credits. A laboratory course to provide a basic understanding of experimental method in social psychology and experience in conducting research on social processes.

PSYC 422 Advanced Social Psychology (3) Prerequisite: PSYC420 or permission of department. A systematic review of research and points of view in regard to major problems in the field of social psychology.

PSYC 424 Communication and Persuasion (3) Prerequisites: PSYC200 and PSYC221. Effect of social communication upon behavior and attitudes. Theory and research concerning attitude change and social influence.
PSYC 432 Introduction to Counseling Psychology (3) Prerequisite: nine hours in psychology including PSYC200. Analysis of research and intervention strategies developed and used by counseling psychologists. Historical and current trends in content and methodology.

PSYC 433 Basic Helping Skills: Research and Practice (4) Two hours of lecture and two hours of laboratory per week. Prerequisite: PSYC200; and {PSYC235 or PSYC334 or PSYC353 or PSYC432 or PSYC434 or PSYC435 or PSYC436}; and 85 credits. Theories and research regarding effective helping skills. Students will practice helping skills with each other and will conduct research projects evaluating their helping skills. Students should be willing to talk about personal issues in class.

PSYC 434 Severe Mental Disorders: Etiology and Treatment (3) Prerequisites: PSYC200, and PSYC301, and PSYC353, or permission of department. For PSYC majors only. Examines multiple perspectives on severe mental illnesses such as schizophrenia and the major affective disorders. Integrates the biological findings with the human experience of these illnesses, their cultural and socio-political aspects, and their psychological, pharmacological, and social service treatments.

PSYC 435 Personality Theories (3) Prerequisite: PSYC100; and PSYC200 or equivalent. Major theories of personality and research methods and findings relevant to those theories.

PSYC 436 Introduction to Clinical Psychology (3) Prerequisite: PSYC200 or equivalent. Critical analysis of clinical psychology, with particular emphasis on current developments and trends.

PSYC 440 Experimental Psychology: Cognitive Processes (4) Three hours of lecture and two hours of laboratory per week. Prerequisites: PSYC100; and PSYC200; and completion of supporting course sequence; and 85 credits. Recommended: PSYC341. A survey of the content, models, and methods in cognitive psychology with an emphasis on auditory and visual pattern recognition, information processing, attention, memory, learning, problem solving, and language.

PSYC 442 Psychology of Language (3) Prerequisite: PSYC200; and PSYC341 or PSYC440, or permission of department. Introductory survey of topics in psycholinguistic research, theory and methodology. Major emphasis on the contribution of linguistic theory to the psychological study of language behavior and cognition. Linguistic theory, biological bases of language, and speech, grammars, phonetics and phonological performance, speech perception and production, psychological studies of syntax and semantics, language and cognitive development, language comprehension and thought.

PSYC 443 Thinking and Problem Solving (3) Prerequisites: PSYC200; and {PSYC341 or PSYC440} or permission of department. Historical development, current theory and data, and research methods in problem solving. Formal problem solving theory and computer models of thinking and human problem-solving behavior. The uses of strategies to improve students' own thinking processes and problem-solving behavior.

PSYC 450 Field Research in Organizational Psychology (4) Two hours of lecture and two hours of laboratory per week. Prerequisites: PSYC100, PSYC200 and completion of the departmentally required math and science supporting course sequence. Recommended: PSYC361. Restricted to PSYC majors who have completed 85 credits. Methods of field research applicable to organizational settings are examined, including field experiments and quasi-experiments, observation, interviewing, surveys, content analysis, and various forms of qualitative inquiry.

PSYC 451 Principles of Psychological Testing (3) Prerequisite: PSYC200 or equivalent. Basic concepts and theories of psychological assessment including test development. Also discussed are social, legal, cultural, and ethical considerations in testing and commonly used tests.

PSYC 455 Cognitive Development (3) Prerequisites: PSYC200 and {PSYC355 or PSYC341 or PSYC440}. Theory and research in cognition from a life-span developmental perspective including memory, reasoning, attention, spatial cognition, and conceptual organization, and discussions of implications of current research for a variety of educational interventions.

PSYC 456 Research Methods in Developmental Psychology (3) Prerequisites: PSYC200 and {PSYC355 or PSYC356 or PSYC357}. A presentation of major research designs used in developmental psychology and of the methodology used in developmental research, such as observational research, program evaluation, and laboratory experimentation.

PSYC 458 Applied Developmental Psychology (3) Prerequisite: PSYC200 and {PSYC355, or PSYC356, or PSYC357}. Repeatable to 6 credits if content differs. An examination of a topic in developmental psychology which has been examined in the laboratory and is central to developmental theories. Extension of these analyses to practical and social issues in the daily life of the developing individual. Topics will vary from semester to semester.

PSYC 460 Psychological Foundations of Personnel Selection and Training (3) Prerequisite: PSYC200 or equivalent. An examination of issues and processes involved in the design and evaluation of personnel selection and training programs in a variety of organizational settings: job, person and organizational
analysis; organizational choice; development of predictors; evaluation of instructional and training systems; criteria for performance evaluation, promotion and training.

**PSYC 463 Psychology of Motivation and Attitudes in Organizational Settings (3)** Prerequisites: PSYC200 and PSYC361. Theories, research and practice regarding the assessment, understanding, and prediction of motivation at work. Theories, assessment and consequences of various work-related attitudes. An integration of theory, research, and practice.

**PSYC 464 Psychology of Leaders in Work Organizations (3)** Prerequisite: PSYC361 or equivalent. The psychological assumptions and implications of various theories of management and leadership. Selections and training; development of careers; influence processes; change of managerial behavior; and the impact of the larger environment, nature of product or service, and organization structure on managerial behavior.

**PSYC 465 Psychology of Organizational Processes (3)** Prerequisites: PSYC200 and PSYC361 or equivalent. Theories of interpersonal, intra- and inter-group relations, with emphasis on issues of conflict, competition, cooperation and the role of power in organizations. Organizational diagnosis and intervention.

**PSYC 468 Field Experience and Special Assignments in Honors (1-3)** Prerequisite: permission of department as well as supervisor and honors faculty. An individual experience arranged by the honors student and his or her supervisor. A proposal submitted to the honors faculty in the semester preceding registration for the course should state the activities anticipated and the method of evaluation.

**PSYC 469 Honors Thesis Proposal Preparation (1-3)** Prerequisite: Honors thesis supervisor’s approval. Repeatable to 3 credits. Development of honors thesis proposal by preliminary research and literature review. Presentation of formal proposal to the thesis committee.

**PSYC 478 Independent Study in Psychology (1-3)** Prerequisite: permission of both department and instructor in the form of a written agreement signed by the student and the faculty mentor. The student must have completed 9 hours in psychology with at least a 3.0 G.P.A. in psychology and a 2.8 overall G.P.A. Students may not accumulate more than a total of 9 credits in PSYC 478 and PSYC 479 without permission of the Chair of the Department of Psychology or the Psychology Undergraduate Committee. Integrated reading under direction leading to the preparation of an adequately documented report on a special topic.

**PSYC 479 Special Research Problems in Psychology (1-3)** Prerequisite: permission of both department and instructor in the form of a written agreement signed by the student and the faculty mentor. The student must have completed 9 hours in psychology with at least a 3.0 G.P.A. in psychology and a 2.8 overall G.P.A. Repeatable to a maximum of 9 credits unless there is a waiver from the Psychology Undergraduate Committee. Research and data collection under individual faculty supervision, leading to a written research report.

**PSYC 488 Advanced Psychology I (Honors) (3)** Prerequisite: PSYC200 and permission of department. Seminar covering topics in sensation, perception, learning, and motivation.

**PSYC 489 Senior Seminar (3)** Prerequisite: PSYC100. Treatment of a specialized topic in psychology.

**PSYC 498 Advanced Psychology II (Honors) (3)** Prerequisite: PSYC488H or permission of department. Seminar covering topics in measurement, social processes, developmental processes and other subject matter of current interest.

**PSYC 499 Honors Thesis Research (3)** Prerequisite: PSYC469 and permission of thesis advisor.

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Use the search box below to view the approved courses.

Select Program: PUAF - Public Affairs

Course Number: Search

Courses in "PUAF-Public Affairs"

**PUAF - Public Affairs**

**PUAF 201 Leadership for the Common Good (3)** Two hours of lecture and one hour of discussion/recitation per week. Corequisite: CPSP118P. Restricted to College Park Scholars Public Leadership. Freshman standing. This course is designed to provide undergraduate students an introduction to leadership theory and a chance to practice a core set of practical skills relevant to transformational and collaborative leadership.

**PUAF 202 Contemporary Issues in Leadership and Public Policy (1)** Open only to students in the Rawlings Undergraduate Leadership Fellows Program. Sophomore standing. Students will examine public policy and social justice issues in the community and state. Students hear from local elected officials, leaders of non-profit organizations, members of state and county agencies, and faculty from the School of Public
PUAF 338 Academic Seminar for Interns: Federal and International (3) Prerequisite: permission of department. Corequisite: PUAF339. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: BSOS338 or PUAF338. Formerly BSOS 338. The academic seminar for student interns in BSOS399. Students read, discuss, analyze, and write about topics in political and public policy leadership, and leadership studies.

PUAF 339 Internship in Political Institutions: Federal and International (3-6) 8 hours per week in internship site for 15 weeks for 3 credits or 16 hours per week in internship site for 15 weeks for 6 credits. Prerequisite: permission of department. Corequisite: PUAF338. Repeatable to 12 credits if content differs. Credit will be granted for only one of the following: BSOS339 or PUAF339. Formerly BSOS 339. Offers students supervised internship placements in federal and international political or public policy organizations.

PUAF 348 Academic Seminar for Interns: State and Local (3) Prerequisite: permission of department. Corequisite: PUAF349. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: BSOS348 or PUAF348. Formerly BSOS 348. The academic seminar for student interns in PUAF349. Students read, discuss, analyze, and write about topics in political and public policy leadership, and leadership studies.

PUAF 349 Internship in Political Institutions: State and Local (3-6) 8 hours per week in internship site for 15 weeks for 3 credits or 16 hours per week in internship site for 15 weeks for 6 credits. Prerequisite: permission of department. Corequisite: PUAF348. Repeatable to 12 credits if content differs. Credit will be granted for only one of the following: BSOS349 or PUAF349. Formerly BSOS 349. Offers students supervised internship placements in state and local political or public policy organizations.

PUAF 359 Contemporary Issues in Political Leadership and Participation (3) Prerequisite: permission of department. Repeatable to 9 credits if content differs. Credit will be granted for only one of the following: BSOS359 or PUAF359. Formerly BSOS 359. Special topics in political leadership and participation.

PUAF 368 Internship in Community Service Organizations (3-6) Prerequisite: permission of department. Repeatable to 12 credits if content differs. Credit will be granted for only one of the following: BSOS366 or PUAF368. Formerly BSOS 366. Offers students supervised placements in non-profit community organizations.

PUAF 386 Experiential Learning (3-6) Prerequisite: permission of department. Repeatable to 12 credits if content differs. Credit will be granted for only one of the following: BSOS386 or PUAF386. Formerly BSOS 386.

PUAF 388 Special Topics in Public Policy (1-3) Prerequisite: permission of department. Sophomore standing. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: BSOS388 or PUAF388. Formerly BSOS 388. Advanced special topics focusing on an interdisciplinary topic related to Public Policy.

PUAF 396 Fellowship Program in Political Leadership (2-6) Prerequisite: permission of department and acceptance of full-time fellowship program. Credit will be granted for only one of the following: BSOS396 or PUAF396. Formerly BSOS 396. Individual instruction course.

PUAF 398 Fellowship Program in Political Leadership (3-6) Prerequisite: permission of department and acceptance of full-time fellowship program. Repeatable to 12 credits if content differs. Credit will be granted for only one of the following: BSOS398 or PUAF398. Formerly BSOS 398.

PUAF 399 Directed Study in Public Policy (1-6) Prerequisite: permission of department. Repeatable to 12 credits if content differs. Credit will be granted for only one of the following: BSOS399 or PUAF399. Formerly BSOS 399. Guidance for the advanced student capable on interdisciplinary study on special projects under the supervision of faculty.

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Select Program: RUSS - Russian
Course Number:  
Search

Courses in "RUSS-Russian"

RUSS - Russian

RUSS 101 Intensive Elementary Russian I (6) Not open to native speakers of Russian. Credit will be granted for only one of the following: RUSS101; or RUSS111 and RUSS112. This intensive first-year course is intended to develop the four skills: reading, writing, listening and speaking with an emphasis on communicative competence.

RUSS 102 Intensive Elementary Russian II (6) Prerequisite: RUSS101 or RUSS112 or equivalent. Not open to native speakers of Russian. Credit will be granted for only one of the following: RUSS102; or RUSS113 and RUSS114. A continuation of RUSS101 which will further develop the four skills: reading, writing, listening and speaking with an emphasis on communicative competence.
RUSS 111 Elementary Russian I (Non-Intensive) (3) Credit will be granted for only one of the following: RUSS101; or RUSS111 and RUSS112. Begins the development of the basic skills required for communicative competence in Russian: speaking, listening, writing and reading. RUSS111 and RUSS112 are equivalent to RUSS101: Intensive Elementary Russian I.

RUSS 112 Elementary Russian II (Non-intensive) (3) Prerequisite: RUSS111 or equivalent. Credit will be granted for only one of the following: RUSS101; or RUSS111 and RUSS112. A continuation of RUSS111 which is designed to further the development of the basic skills required for communicative competence in Russian: speaking, listening, writing and reading. RUSS111 and RUSS112 are equivalent to RUSS101: Intensive Elementary Russian I.

RUSS 113 Elementary Russian III (Non-Intensive) (3) Prerequisite: RUSS112 or equivalent. Credit will be granted for only one of the following: RUSS102; or RUSS113 and RUSS114. A continuation of RUSS112 which is designed to further the development of the basic skills required for communicative competence in Russian: speaking, listening, writing and reading. RUSS113 and RUSS114 are equivalent to RUSS102: Intensive Elementary Russian II.

RUSS 114 Elementary Russian IV (Non-Intensive) (3) Prerequisite: RUSS113 or equivalent. Credit will be granted for only one of the following: RUSS102; or RUSS113 and RUSS114. A continuation of RUSS113 which is designed to further the development of the basic skills required for communicative competence in Russian: speaking, listening, writing and reading. RUSS113 and RUSS114 are equivalent to RUSS102: Intensive Elementary Russian II.

RUSS 201 Intermediate Russian I (5) Prerequisite: RUSS102 or RUSS114 or equivalent. Not open to native speakers of Russian. Continued activation and expansion of skills and knowledge acquired in an elementary Russian course with the goal of communicative competence.

RUSS 202 Intermediate Russian II (5) Prerequisite: RUSS201. Not open to native speakers of Russian. Continued activation and expansion of skills and knowledge acquired in RUSS201 with the goal of communicative competence.

RUSS 210 Structural Description of Russian (3) Pre- or corequisite: RUSS201 or equivalent. An introductory linguistic course designed to order and supplement students' knowledge of the sound system and the inflectional system of the verb. A practical component on reading skills also focuses on the verb and methods of developing vocabulary.

RUSS 211 Applied Russian Phonetics (3) Prerequisite: RUSS102. Not open to native speakers of Russian. Pronunciation; the sounds and intonational patterns of Russian in contrast with those of English.

RUSS 221 Masterworks of Russian Literature I (3) Introduction to the classics of Russian literature in translation, beginning with Pushkin in the early 19th century and concluding with works of Dostoevsky and Tolstoy in the later part of that century.

RUSS 222 Masterworks of Russian Literature II (3) Introduction to the classics of Russian literature in translation, beginning with the end of the nineteenth century and concluding with contemporary works.

RUSS 281 Russian Language and Pre-Revolutionary Culture (3) Not open to native speakers of Russian. Introduction to the Russian language and a study of Russian nationalism; artistic and social concepts in the development of Russian art, dance, geography, history and literature from the 18th to the 20th centuries. Lectures in English, with third hour devoted to basic language instruction (alphabet, vocabulary, pronunciation and minimal conversational skills).

RUSS 282 Contemporary Russian Culture (3) Russia of the post-Communist era. An exploration of the cultural implications of the disintegration of the former Soviet Union. Also included is a brief introduction to the Russian language: alphabet, elementary reading and survival skills for the first time traveler. Course format includes a combination of lectures, group discussions, videos, and optional field trips.

RUSS 298 Special Topics in Russian Language and Literature (3) Repeatable to 6 credits if content differs.

RUSS 301 Advanced Russian I (3) Prerequisite: RUSS202 or equivalent. Advanced training in written Russian communicative structures.

RUSS 302 Advanced Russian II (3) Prerequisite: RUSS301. Advanced training in written Russian communicative structures.

RUSS 303 Russian Conversation: Functional Skills (3) Prerequisite: RUSS202 or equivalent. Intended for students who do not anticipate having the opportunity to study in the Soviet Union. Skills for daily life (both function and etiquette) and argumentation (rhetoric).
RUSS 307 Commercial Russian I (3) Prerequisite: RUSS202 or equivalent. Designed to give introductory knowledge of correct commercial Russian including letters, business forms, contracts, and agreements.

RUSS 321 Survey of Russian Literature I (3) Prerequisite: RUSS202 or equivalent. The first half of a survey of Russian literature.

RUSS 322 Survey of Russian Literature II (3) Prerequisite: RUSS321 or equivalent. The second half of a survey of Russian literature.

RUSS 327 Old Russian Literature in Translation (3) Recommended: RUSS221. Old Russian literature of the 11th-17th centuries for the general student. Selected texts will be read in translation, with analysis in terms of genre and historical setting.


RUSS 329 Soviet Literature in Translation (3) Repeatable to 6 credits if content differs. Russian literature since 1917, both as a continuation of pre-revolutionary traditions and as a reflection of Soviet ideology.

RUSS 381 Russian Civilization (in Russian) I (3) Prerequisite: RUSS202. A historical survey of Russian civilization emphasizing architecture, painting, sculpture, music, ballet and the theater to the beginning of the 19th century pointing out the interrelationship of all with literary movements. Taught in Russian.

RUSS 382 Russian Civilization (in Russian) II (3) Prerequisite: RUSS202. A historical survey of Russian civilization emphasizing architecture, painting, sculpture, music, ballet, and the theater, from the beginning of the 19th century to the present pointing out the interrelationships of all with literary movements. Taught in Russian.

RUSS 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

RUSS 388 Language House Spring Colloquium (1) Prerequisite: Residence in Language House. Repeatable to 8 credits. For students residing in the Language House Immersion Program. Focuses on the development of skills in the target language and acquiring the cultural knowledge of the countries that speak the target language.

RUSS 398 Selected Topics in Russian Language and Literature (3) Repeatable to 6 credits if content differs.

RUSS 401 Advanced Russian Composition (3) Prerequisite: RUSS302.

RUSS 402 Practicum in Written Russian (3) Prerequisite: RUSS401 or equivalent. Designed to improve comprehension of functional varieties of written Russian and develop ability to present in written form concise syntheses of source texts.

RUSS 403 Russian Conversation: Advanced Skills (3) Prerequisite: RUSS303 or equivalent. Advanced spoken production of high-level, abstract language.

RUSS 404 Practicum in Spoken Russian (3) Prerequisite: RUSS403 or equivalent. To improve comprehension of rapidly spoken Russian of various functional styles and to develop ability to synthesize orally the content of spoken material.

RUSS 405 Russian-English Translation I (3) Pre- or corequisite: RUSS302 or equivalent. Introduction to the principles of translation of a particular genre, typically diplomatic, business, or literary.

RUSS 406 Russian-English Translation II (3) Prerequisite: RUSS405. Continuation of RUSS405.

RUSS 407 Commercial Russian II (3) Prerequisite: RUSS307. Continuation of RUSS307 focusing in the more difficult and complex Russian business documents and Russian business ministries.

RUSS 409 Selected Topics in Russian Language Study (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Presentation of a topic in Russian language study.

RUSS 410 Applied Russian Linguistics (3) The nature of applied linguistics and its contributions to the effective teaching of foreign languages. Comparative study of English and Russian, with emphasis upon points of divergence. Analysis, evaluation and construction of related drills.
RUSS 411 Linguistic Analysis of Russian I (3) Prerequisites: RUSS210; and LING200. Pre- or corequisite: RUSS301. Elucidation of theoretical concepts of modern linguistics through the analysis of problematic concepts in the Russian linguistic system. Phonology and the syntax of the simple sentence.

RUSS 412 Linguistic Analysis of Russian II (3) Prerequisite: RUSS411. Continuation of RUSS411. The syntax of the complete sentence, semantics.

RUSS 431 Russian Literature of the 19th Century I (3)

RUSS 432 Russian Literature of the 19th Century II (3)

RUSS 433 Russian Literature of the 20th Century (3)

RUSS 434 Soviet Russian Literature (3)

RUSS 439 Selected Topics in Russian Literature (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Presentation of a topic in Russian literature.

RUSS 473 Recent History of the Russian Language (3) Linguistic interpretation of Russian texts from the late 18th century to the present.

RUSS 499 Independent Study in Russian (1-3) Prerequisite: permission of instructor. Repeatable to 6 credits if content differs. Independent study under faculty supervision.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: SLAV - Slavic

Course Number: 

Search

Courses in "SLAV-Slavic"

SLAV - Slavic

SLAV 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of Experiential Learning Programs, faculty sponsor, and student's internship sponsor. Junior standing.

SLAV 469 Selected Topics in Slavic Studies (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Presentation of a topic in Slavic studies.

SLAV 475 Old Church Slavonic (3) Introduction to the language of the oldest recorded Slavic documents. Historical presentation of phonology, morphology, and syntax; reading of texts.
SLAV 479 Selected Topics in Slavic Linguistics (3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Presentation of a topic in Slavic linguistics.

SLAV 499 Directed Study (1-3) Prerequisite: permission of department. For advanced students. Repeatable to 6 credits if content differs.

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Select Program: SLLC - School of Languages, Literatures and Cultures

Course Number: Search

Courses in "SLLC-School of Languages, Literatures and Cultures"

SLLC - School of Languages, Literatures and Cultures

SLLC 283 Introduction to Cinema Studies (3) Three hours of lecture and two hours of laboratory (viewing films) per week. Introduction to the critical study of film, focusing on cinema from myriad cultures in Europe, the Americas, Asia, and Africa, with special attention to form analysis and the way that form affects and creates cultural meaning in such contexts as gender, race, colonialism, political ideology, and technology.

SLLC 300 World Film History (3) A historical and critical survey of film as an art form, an institution, and a medium of communication through a selection of major aesthetic movements and masterpieces of world cinema.
SLLC 305 Language, Identity and Diversity in the U.S. (3) Introduces issues of linguistic diversity in the framework of the U.S. as a multilingual society. Special emphasis is placed on attitudes toward language diversity, specifically, how regional, social, generational, ethnic, racial and gender differences in language use contribute to notions of identity.

SLLC 400 Articulatory Phonetics for Second Language Acquisition and Application (3) Junior standing. Also offered as SLLC600. Credit will be granted for only one of the following: SLLC400 or SLLC600. The mechanical capabilities of the human vocal apparatus for producing speech sounds, and their terminology and transcription in the International Phonetic Alphabet. Emphasis is on the practical needs of the teacher and student of foreign language, rather than the theoretical linguist or the hearing-and-speech pathologist. The phonetics of major languages are also introduced, with attention to the pedagogy of their phonetics.

SLLC 471 The Cultural Environment of Global Business (3) Sophomore standing. Credit will be granted for only one of the following: ARHU439B, ARHU439E, ARHU439T, ENES472, SLLC471, SLLC472 or SLLC473. Formerly ARHU 439B. The goal of this course is to provide students with an understanding of cultural aspects pertaining to global business, and thereby increasing their awareness of the cultural factors that motivate decisions and behavior in the business world. Students will gain an understanding of how the business cultures in the rest of the world diverge from the American, and develop the cultural understanding, attitudes, and communication skills needed to function appropriately within an increasingly global and multicultural working environment.

SLLC 472 International Business Cultures in Engineering and Technology (3) Sophomore standing. Also offered as ENES472. Credit will be granted for only one of the following: ARHU439B, ARHU439E, ARHU439T, ENES472, SLLC471, SLLC472 or SLLC473. Formerly ARHU 439T. The goal of this course is to provide students with an understanding of cultural aspects pertaining to global business and engineering, and thereby increasing their awareness of the cultural factors that motivate decisions and behavior in the business world. Students will gain an understanding of how the business cultures in the rest of the world diverge from the American, and develop the cultural understanding, attitudes, and communication skills needed to function appropriately within an increasingly global and multicultural working environment.

SLLC 473 European Business Cultures (3) Sophomore standing. Credit will be granted for only one of the following: ARHU439B, ARHU439E, ARHU439T, ENES472, SLLC471, SLLC472 or SLLC473. Formerly ARHU 439E. The goal of this course is to provide students with an understanding of cultural aspects pertaining to European business, and thereby increasing their awareness of the cultural factors that motivate decisions and behavior in the European business world. Students will gain an understanding of how the European business cultures diverge from the American, and develop the cultural understanding, attitudes, and communication skills needed to function appropriately within an increasingly global and multicultural working environment.

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Use the search box below to view the approved courses.

Select Program: SOCY - Sociology

Course Number: 

Search

Courses in “SOCY-Sociology”

SOCY - Sociology

**SOCY 100 Introduction to Sociology (3)** The fundamental concepts and principles of sociology. Includes consideration of culture, patterns of social interaction, norms, values, social institutions, stratification, and social change.

**SOCY 105 Introduction to Contemporary Social Problems (3)** An examination of contemporary social problems through sociological perspectives; ways in which social problems are part of the organization of society; a detailed study of selected social problems including social conflict and social inequality.

**SOCY 201 Introductory Statistics for Sociology (4)** Three hours of lecture and two hours of laboratory
per week. Prerequisite: SOCY100 and MATH111 or equivalent. Not open to students who have completed BMGT231, ENEE324, or STAT400. Credit will be granted for only one of the following: AREC484, BIOM301, BMGT230, CNEC400, ECON321, EDMS451, GEOG305, GVPT422, PSYC200, SOCY201, URSP350, or TEXT400. Elementary descriptive and inferential statistics. Construction and percentaging of bivariate contingency tables; frequency distributions and graphic presentations; measures of central tendency and dispersion; parametric and nonparametric measures of association and correlation; regression; probability; hypothesis testing; the normal, binomial and chi-square distributions; point and interval estimates.

SOCY 202 Introduction to Research Methods in Sociology (4) Prerequisite: SOCY201. The underlying logic, major strategies, specific techniques and skills of sociological research. Research design, measurement, data collection, sampling, field research experiments, surveys, index and scale construction, data analysis, interpretation and report writing.

SOCY 203 Sociological Theory (3) Prerequisite: SOCY100. Development of the science of sociology; historical backgrounds; recent theories of society. Required of all sociology majors.

SOCY 227 Introduction to the Study of Deviance (3) Credit will be granted for only one of the following: SOCY227 or SOCY327. Formerly SOCY 327. An introduction to the sociological study of deviant behavior, covering such topics as mental illness, sexual deviance, and the use of drugs.

SOCY 230 Sociological Social Psychology (3) Theoretical perspectives and their applications. Socialization through the life course, the self-concept, attitudes, emotion, attribution, interpersonal relations, group processes, deviance, and social change.

SOCY 241 Inequality in American Society (3) The dynamics of inequality: its social production, politics, future, and ideological bases. Utopian communities, efforts to eliminate inequality.

SOCY 305 Scarcity and Modern Society (3) Prerequisite: three credits of sociology. Resource depletion and the deterioration of the environment. Relationship to lifestyles, individual consumer choices, cultural values, and institutional failures. Projection of the future course of American society on the basis of the analysis of scarcity, theories of social change, current trends, social movements, government actions, and the futurist literature.

SOCY 325 The Sociology of Gender (3) Prerequisite: three credits of sociology. Also offered as WMST325. Credit will be granted for only one of the following: SOCY325 or WMST325. Institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and gender-role change. Emphasis on contemporary American society.

SOCY 333 Technology and Society (3) Prerequisite: three credits of sociology. Impact of technology on agriculture, the industrial revolution, politics, economics, and health, education and welfare, as these affect changes in social organizations. The development of small cities, the better utilization of energy, the use of wealth and abundance and its relation to the division of labor, and the role of technology in shaping of new forms of political and economic organizations.

SOCY 380 Honors Independent Reading in Sociology (3) Prerequisite: permission of department. Formerly SOCY 378. This course permits sociology honor students to undertake a program or reading on a particular problem in sociology or a subfield therein. The reading will be done under the supervision of a member of the sociology faculty. Required of sociology honor students.

SOCY 381 Honors Independent Research in Sociology (3) Prerequisite: SOCY380. Formerly SOCY 388. This course permits sociology students to define a particular problem in sociology or a subfield therein and to develop a research plan for use as a thesis topic. The work will be done under the supervision of a member of the sociology faculty.

SOCY 383 Honors Thesis Research (3) Prerequisite: SOCY381. Formerly SOCY 389. Student research under the direction of a member of the sociology faculty, culminating in the presentation and defense of a thesis reporting the research.

SOCY 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

SOCY 398 Special Topics in Sociology (1-3) Prerequisite: three credits of sociology. Repeatable to 6 credits if content differs. Topics of special interest to both sociology majors and non-majors.

SOCY 399 Independent Study in Sociology (1-6) Prerequisite: Twelve credits of sociology and permission of department. Repeatable to 6 credits if content differs. Integrated reading or research under the direction and supervision of a faculty member. A maximum of 6 credits may be earned by a student for the same field experience in SOCY386 and SOCY399 combined.

SOCY 401 Intermediate Statistics for Sociologists (4) Three hours of lecture and two hours of laboratory per week. Prerequisite: SOCY201 or equivalent or permission of department. Not open to students
who have completed ENEE324, BMGT231, or STAT400. Issues in the use of significance tests in sociology, one and two-way analysis of variance, elements of multiple regression and correlation, techniques for the analysis of nominal and ordinal data.

**SOCY 402 Intermediate Procedures For Data Collection (3)** Prerequisite: SOCY202 or equivalent; or permission of department. An intermediate survey of the major research methods used by sociologists, including survey research, experimentation, observation, archival research, and in-depth interviewing. The selection of an appropriate research method, with analysis of the strengths and weaknesses of various methods, practical issues, data collection and preparation, and analytical techniques.

**SOCY 403 Intermediate Sociological Theory (3)** Prerequisite: SOCY203 or permission of department. Major theoretical approaches, including functionalism, symbolic interactionism, and their implicit methods of logic illustrated by case studies. Original works of major theorists in historical perspective.

**SOCY 410 Social Demography (3)** Prerequisite: six credits of sociology or permission of department. Types of demographic analysis; demographic data; population characteristics; migration; mortality; fertility; population theories; world population growth; population policy.

**SOCY 411 Demographic Techniques (3)** Prerequisite: SOCY201 or equivalent and SOCY 410; or permission of department. Basic techniques for analyzing population structure and demographic processes, including fertility, mortality and migration.

**SOCY 412 Family Demography (3)** Prerequisite: six credits of sociology course work. Formerly SOCY 312. Family and population dynamics. Fertility issues, such as teenage pregnancy, the timing of parenthood, and family size; as they relate to family behavior, such as marital patterns, child care use, and work and the family. Policy issues that relate to demographic changes in the family.

**SOCY 421 Women and Men in the World System (3)** Prerequisite: six credits of Sociology or permission of department. Critical overview of major approaches to development (modernization, dependency, world-systems) within comparative sociology. Impact on empirical research and the design and implementation of strategies of development. Salient topics in the comparative sociology of development including: democratization, trends in world income inequalities, structural adjustment programs, and changing patterns of labor force participation by women and men.

**SOCY 422 Social Change in Latin America (3)** Prerequisite: six credits in sociology or permission of department. Comparative study of social change in contemporary Latin America. Critical review of major theories and their use in empirical research, and assessment of social policy implications of alternative perspectives.

**SOCY 424 Sociology of Race Relations (3)** Prerequisite: six credits in sociology or permission of department. Also offered as AAST424. Credit will be granted for only one of the following: AAST424 or SOCY424. Analysis of race-related issues, with a primary focus on American society. The historical emergence, development, and institutionalization of racism; the impact of racism on its victims; and racially based conflict.

**SOCY 425 Gender Roles and Social Institutions (3)** Prerequisite: six credits of sociology or permission of department. Relationship between gender roles and the structure of one or more social institutions (e.g., the economy, the family, the political system, religion, education). The incorporation of gender roles into social institutions; perpetuation or transformation of sex roles by social institutions; how changing gender roles affect social institutions.

**SOCY 427 Deviant Behavior (3)** Prerequisite: six credits of sociology or permission of department. Current theories of the genesis and distribution of deviant behavior, and their implications for a general theory of deviant behavior. Definitions of deviance, labeling theory, secondary deviance.

**SOCY 428 Research in Inequality (3)** Prerequisite: SOCY202, SOCY203 and one course in Stratification and Inequality. Repeatable to 6 credits if content differs. This is the special topics research course for Stratification and Inequality.

**SOCY 430 Social Structure and Identity (3)** Prerequisite: six credits of sociology or permission of department. Theoretical issues in social psychology, focusing on social construction of identity. Identity formation and transformation in social process. Structural and cultural dimensions of social identity.

**SOCY 431 Principles of Organizations (3)** Prerequisite: six credits of sociology or permission of department. Structural and processual characteristics of organizations that make them effective for different purposes and in different environments. Effects of different institutional environments, small group processes, organizational networks, and leadership. Types of organizations studied include formal bureaucracies, professional organizations, and voluntary associations.

**SOCY 432 Social Movements (3)** Prerequisite: six credits of sociology or permission of department. Movements that seek change in the social and political structure of society. Origins, tactics, organization,
recruitment, and success. Case studies come from such movements as labor, civil rights, student, feminist, environmental, neighborhood, and gay rights.

**SOCI 438 Research in Organizations and Institutions (3)** Prerequisite: SOCY202, SOCY203, and one course in Organizations and Institutions. Repeatable to 6 credits if content differs. This is the special topics research course for Organizations and Institutions.

**SOCI 440 Sociology of the Self-Concept (3)** Prerequisite: six credits of sociology or permission of department. The nature of the self-concept and the social forces that mold it. Major sociological, psychological, and psycho-analytic theories of the self-concept. Self-concept motives, mechanisms of self-defense, and the nature of a healthy self-concept. Empirical research dealing with the bearing of social interaction, social structure, social context and social institutions on the self-concept.

**SOCI 441 Social Stratification and Inequality (3)** Prerequisite: six credits of sociology or permission of department. Junior standing. The sociological study of social class, status, and power. Topics include theories of stratification, correlates of social position, functions and dysfunctions of social inequality, status inconsistency, and social mobility.

**SOCI 442 The Family and Social Class (3)** Prerequisite: six credits of sociology or permission of department. Development of the family from pre-industrial to contemporary period. Emphasis upon class differences in family functioning and the roles of husbands and wives. Changes in these roles from pre-industrial to postindustrial period, and variations by race. Discussion of the emergence of dual-worker and dual-career families and the issues they face.

**SOCI 443 The Family and Society (3)** Prerequisite: six credits of sociology or permission of department. Study of the family as a social institution; its biological and cultural foundations, historical development, changing structures and functions, the interaction of marriage and parenthood, disorganizing and reorganizing factors in present-day trends.

**SOCI 444 Sociology of Children (3)** Prerequisite: six credits of sociology or permission of department. Socio-historical analysis of the changing nature and meaning of childhood. Analysis of social psychological, demographic, and socioeconomic aspects of contemporary children's lives, with a focus on peer groups, gender relations, family change, macroeconomic conditions, poverty, health, and educational well-being of children.

**SOCI 447 Small Group Analysis (3)** Prerequisite: SOCY201 or equivalent or permission of department. Analysis of small group structures and dynamics. Review of research on small groups in real life settings and in laboratories. Presentation of techniques used in small groups.

**SOCI 448 Research in Social Psychology (3)** Prerequisite: SOCY202, SOCY203, and one course in Social Psychology. Repeatable to 6 credits if content differs. This is the special topics research course in Social Psychology.

**SOCI 450 Measurement of Time, Work, and Leisure (3)** Prerequisite: six credits of sociology or permission of department. How Americans use time, with specific reference to work, housework, personal and free time activities. Time-use differences across methods, social groups and cultures. Subjective time. Implications for time management, societal quality of life, social policy, and theory.

**SOCI 456 Sociology of Consumerism (3)** Prerequisite: SOCY 203 and three additional credits of sociology or permission of department. Issues relating to consumerism. Among the issues to be explored are advertising, the settings in which we consume, what we consume and why, the changing nature of consumption.

**SOCI 460 Sociology of Work (3)** Prerequisite: six credits of sociology or permission of department. Analysis of the American work world with special attention to the impact of social change and occupational conflicts on the individual worker. Professionalization, career patterns, problems of minority groups and the future of work.

**SOCI 462 Women in the Military (3)** Prerequisite: six credits of sociology or permission of department. Cross-national analysis of past, present, and future trends in women's roles in the military. Effects on women's roles in armed forces of cultural forces, national security, technological change, demographic patterns, occupational structures, labor shortages, and considerations of efficiency and rationality.

**SOCI 463 Sociology of Combat (3)** Prerequisite: six credits of sociology or permission of department. Sociological theories and concepts related to combat. Influence of historical events on relations between nations and between the military and society. Effects of U.S. social structure on actions in combat; effects of involvement in combat on social structure and on members of society. Cohesion and leadership in military units.

**SOCI 464 Military Sociology (3)** Prerequisite: six credits of sociology or permission of department. Social change and the growth of military institutions. Complex formal military organizations. Military service as an
occupation or profession. The sociology of military life. Relations between military institutions, civilian communities and society.

SOCY 465 The Sociology of War (3) Prerequisite: six credits of sociology or permission of department. The origin and development of armed forces as institutions, the social causes, operations and results of war as social conflict; the relations of peace and war and revolution in contemporary civilizations.

SOCY 467 Sociology of Education (3) Prerequisite: six credits of sociology or permission of department. Sociological analysis of educational institutions and their relation to society: goals and functions, the mechanisms of social control, and the impacts of stratification and social change. Study of the school as a formal organization, and the roles and subcultures of teachers and students.

SOCY 498 Selected Topics in Sociology (1-3) Prerequisite: six credits of sociology or permission of department. Repeatable to 6 credits. Topics of special interest to advanced undergraduates in sociology. Such courses will be offered in response to student request and faculty interest.

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Select Program: SPAN - Spanish

Course Number: 

Search

Courses in "SPAN-Spanish"

SPAN - Spanish

SPAN 101 Elementary Spanish I (4) Four hours of discussion/recitation per week. Prerequisite: No previous Spanish: high school level 1 Spanish with grade of A or B; high school level 2 Spanish with a grade of C or below. Not open to native/fluent speakers of Spanish. Introduction to the functions and structures of the Spanish language, with emphasis on the four skills of listening, speaking, reading and writing.

SPAN 102 Elementary Spanish II (4) Four hours of discussion/recitation per week. Prerequisite: SPAN101 at UMCP or equivalent. Not open to native/fluent speakers of Spanish. Further study of the functions and structures of the Spanish language, with emphasis on the four skills of listening, speaking, reading and writing.
SPAN 103 Intensive Elementary Spanish (4) Not open to students who have completed SPAN101, SPAN102, more than two years of high school Spanish, or to fluent/native speakers of Spanish. Credit will be granted for only one of the following: SPAN102 or SPAN103. Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

SPAN 125 Spanish Civilization: From Kingdoms to Nationalities (3) Introduction to the cultural heritage of the Spanish people, their traditions, customs, arts and literature, with special emphasis on the interrelationship of social and literary history.

SPAN 201 Intermediate Spanish (4) Prerequisite: SPAN102 or SPAN103 at UMCP or high school level 3 Spanish with a grade of A or B or high school level 4 Spanish with a C or below. Not open to native/fluent speakers of Spanish. Formerly SPAN 203. Continued development of the functions and structures of the Spanish language with emphasis on the four skills of listening, speaking, reading, and writing.

SPAN 203 Intensive Intermediate Spanish (4) Four hours of discussion/recitation per week. Prerequisite: SPAN103 or equivalent. Not open to students who have completed four years of high school Spanish or to fluent/native speakers of Spanish. Credit will be granted for only one of the following: SPAN201 or SPAN203. Formerly SPAN 201. Covers speaking, reading, writing, listening, and culture of Spanish-speaking world.

SPAN 204 Spanish Grammar Review (3) Prerequisite: SPAN203 (formerly SPAN201); or high school level 4 or 5 with a grade of A or B; or permission of department. Not open to students who have completed SPAN202 or to native/fluent speakers of Spanish. Credit will be granted for only one of the following: SPAN202 or SPAN204. Formerly SPAN 202. An in-depth study and analysis of selected grammatical topics in a contextualized framework.

SPAN 206 Review of Oral and Written Spanish for Native Speakers Educated in the United States (3) Prerequisite: Native or near native knowledge of oral Spanish and no formal education in Spanish. Review of oral and written Spanish for students who have native or near-native ability in Spanish, but have never studied it in a formal setting.

SPAN 207 Reading and Writing in Spanish (3) Prerequisite: SPAN203; or permission of department. Selected readings with emphasis on reading comprehension and the development of reading strategies. Work in composition writing and a review of selected grammatical topics. Complements material of SPAN204.

SPAN 211 Intermediate Conversation (3) Prerequisite: SPAN203 or permission of department. Not open to native/fluent speakers of Spanish. Development of listening and speaking skills in Spanish. Opportunity to develop oral fluency, improve pronunciation and increase vocabulary. Individual and/or group oral presentations.

SPAN 221 Introduction to Literature (3) Prerequisite: SPAN207 or permission of department. Selected readings in various genres in Spanish and Latin American literature. Discussion and written reports in Spanish.

SPAN 222 Cultural Difference in Contemporary Latin America (3) Introduction to representations and expressions in Latin America: cultural stereotypes, representations of difference, forms of discrimination, sublimation of difference into national identity, and the staging of the other. Taught in English.

SPAN 223 United States Latino Culture (3) 45 semester hours. Survey of the diverse historical, political, and economic issues contributing to the formation of U.S Latino culture(s) and communities. Representative Latino cultural texts-literary, artistic, musical, film, and performances will be studied and discussed. In English.

SPAN 224 Violence and Resistance in the Americas (3) Indigenous vision of violence and resistance in the Americas. Texts and maps from the European explorers and conquerors are also studied. Readings include primary texts from the 16th as well as from the 20th century. In English.

SPAN 225 Cultures of the Contact Zones - Seville, Al-Andalus and the Atlantic World (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as HONR248E. Credit will be granted for only one of the following: HONR248E or SPAN225. Content is broad enough to deal with issues of multiculturalism is Spain but also specific enough to center on the city of Seville and the Andalusian region.

SPAN 228 Selected Topics in Latin American Literature and Society (3-6) Repeatable to 6 credits if content differs. Also offered as PORT228. Credit will be granted for only one of the following: SPAN228 or PORT228. Variable cultural studies topics on literature and society in contemporary Latin America.

SPAN 234 Issues in Latin American Studies I (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as PORT234 and LASC234. Credit will be granted for only one of the following: SPAN234 or PORT234 or LASC234. Interdisciplinary study of major issues in Latin America and the Caribbean, including Latin America's cultural mosaic, migration and urbanization. Democratization and the role of religions.
SPAN 235 Issues in Latin American Studies II (3) Two hours of lecture and one hour of discussion/recitation per week. Also offered as PORT235 and LASC235. Credit will be granted for only one of the following: SPAN235 or PORT235 or LASC235. Major issues shaping Latin American and Caribbean societies including the changing constructions of race, ethnicity, gender and class as well as expressions of popular cultures and revolutionary practices. A continuation of SPAN/PORT/LASC234, but completion of 234 is not a prerequisite.

SPAN 301 Advanced Grammar and Composition I (3) Prerequisite: SPAN204. Recommended: SPAN207. Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical, and stylistic devices will be highlighted.

SPAN 302 Advanced Grammar and Composition II (3) Prerequisite: SPAN301. Practice in and writing of different types of compositions and essays, including narrations, descriptions, and persuasive writing. Review of problematic syntactical structures.

SPAN 303 Approaches to Cultural Materials in the Hispanic World (3) Prerequisite: SPAN207 or permission of instructor. Development of proficiency in critical thought through the reading, viewing, and analytical discussion of major genres and styles of cultural materials selected from Spanish-speaking world. In Spanish.

SPAN 306 Spanish II for Native Speakers (3) Prerequisite: SPAN206. Practice of complex grammatical structures through reading and writing of compositions and essays. Specific lexical, syntactic, rhetorical and stylistic devices will be highlighted. Designed for Spanish speakers educated in English.

SPAN 307 Oral Communication Skills for Native Speakers of Spanish (3) Development of techniques for formal public speaking in Spanish. Writing and delivering oral presentations for varied audiences and purposes. Includes strategies for organization, the use of rhetorical patterns, and the development of effective discourse. Designed for bilingual students who are native speakers of Spanish (Heritage Language learners), who have been educated in the U.S. and whose Spanish ability is mainly oral.

SPAN 310 Spanish Phonetics (3) Prerequisite: SPAN204 or permission of department. Descriptive study of the Spanish sound system. Practice in phonetic perception, transcription, and articulation. Particular attention to sentence phonetics; juncture, rhythm, stress, pitch.

SPAN 311 Advanced Conversation I (3) Prerequisite: SPAN204 or SPAN211 or permission of department. Not open to native/fluent speakers of Spanish. Further development of listening and speaking skills in Spanish. Opportunity to develop oral fluency, improve pronunciation and increase vocabulary. Individual and/or group oral presentations.

SPAN 312 Advanced Conversation II (3) Not open to native/fluent speakers of Spanish. Prerequisite: SPAN311. Continued mastery of listening and speaking skills in Spanish. Opportunity to develop oral fluency, improve pronunciation, and increase vocabulary. Emphasis on colloquial and technical language as well as development of linguistic accuracy. Individual and/or group oral presentation.

SPAN 314 Daily Life in Mexico: An Intercultural Approach (1) For students in UMS Study Abroad program in Mexico City. Cultural differences between life in the United States and Mexico.

SPAN 315 Commercial Spanish I (3) Prerequisite: SPAN301 or permission of department. Business Spanish terminology, vocabulary and practices. Emphasis on everyday spoken and written Spanish. Readings and discussions of Spanish commercial topics. May include exposure to Spanish business environments.

SPAN 316 Practicum in Translation I (3) Prerequisite: SPAN301 and permission of department. Translation of non-literary, non-technical texts into Spanish and/or English.

SPAN 317 Translation II (3) Prerequisite: SPAN316. Translation of non-literary, non-technical texts into Spanish and/or English.

SPAN 318 Translation of Technical Texts (3) Prerequisite: SPAN317. Repeatable to 6 credits if content differs. Translation of technical and specialized texts in various fields (e.g. medicine, law, international affairs, social work, journalism, technology) into Spanish and/or English.

SPAN 321 Survey of Spanish Literature I (3) Prerequisite: SPAN301 or permission of department. Overview of the history of Spanish literature from the 12th through the 17th century.

SPAN 322 Survey of Spanish Literature II (3) Prerequisite: SPAN301 or permission of department. Overview of the history of Spanish literature from the 18th century to the present.

SPAN 323 Survey of Latin-American Literature I (3) Prerequisite: SPAN301 or permission of department. Overview of the history of Latin American literature from the pre-Columbian era through the 18th
SPAN 324 Survey of Latin-American Literature II (3) Prerequisite: SPAN301 or permission of department. Overview of the history of Latin American literature from the 19th century to the present.

SPAN 325 Spanish Civilization I (3) Prerequisite: SPAN301 or permission of department. Spanish civilization from the pre-Spanish cultures through the Spanish Golden Age with emphasis on cultural, social, and artistic aspects.

SPAN 326 Spanish Civilization II (3) Prerequisite: SPAN301 or permission of department. Spanish civilization from the 18th century to the present day with emphasis on cultural, social, and artistic aspects.

SPAN 331 Spanish Culture, Civilization and Literature I: Medieval Times (3) Prerequisite: SPAN301 and SPAN303 or permission of instructor. Credit will be granted for only one of the following: SPAN321, SPAN325, or SPAN331. The exploration of cultures of the Iberian Peninsula from its origins until the 15th century as well as the study of historical and political events that gave rise to the Spanish state. In Spanish.

SPAN 332 Spanish Culture, Civilization and Literature II: Renaissance and Baroque (3) Prerequisite: SPAN301 and SPAN303; or permission of instructor. An overview of cultural and literary production of Spain from the late 15th through late 17th centuries, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. In Spanish.

SPAN 333 Spanish Culture, Civilization and Literature III: Modern Times (3) Prerequisite: SPAN301 and SPAN303 or permission of instructor. Not open to students who have completed SPAN322 or SPAN326. Credit will be granted for only one of the following: SPAN322, SPAN326, or SPAN333. An overview of cultural and literary production of Spain from the late 17th century through the present day, exploring the production of literary texts in their socio-historical, political, religious and cultural contexts and development. In Spanish.

SPAN 346 Latin American Civilization I (3) Prerequisite: SPAN301 or permission of department. Cultural heritage of the Latin American peoples from the pre-Columbian period to independence.

SPAN 347 Latin American Civilization II (3) Prerequisite: SPAN301 or permission of department. Cultural heritage of the Latin American peoples from independence to the present.

SPAN 356 Literary Translation I (3) Prerequisite: SPAN317 or permission of department. Translation of literary texts into Spanish and/or English: dialogue and other forms.

SPAN 357 Literary Translation II (3) Prerequisite: SPAN317 or permission of department. A continuation of SPAN356. Translation of literary texts into Spanish and/or English: dialogue and other forms.

SPAN 361 Latin American Literatures and Cultures I: From Pre-Columbian to Colonial Times (3) Prerequisite: SPAN301 and SPAN303 or permission of instructor. Not open to students who have completed SPAN323 or SPAN346. Credit will be granted for only one of the following: SPAN361, SPAN323, or SPAN346. Overview of cultural history of Latin America from pre-Columbian civilizations to the Colonial period, exploring the foundations of the Spanish American cultural and literary tradition to approximately 1770. In Spanish.

SPAN 362 Latin American Literatures and Cultures II: From Independence to Nation Formation (3) Prerequisite: SPAN301 and SPAN303 or permission of instructor. An overview of cultural and literary production of Latin America from the 18th Century to approximately 1900, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. In Spanish.

SPAN 363 Latin American Literatures and Cultures III: From Modernism to Neo-Liberalism (3) Prerequisite: SPAN301 and SPAN303, or permission of instructor. Not open to students who have completed SPAN324 or SPAN347. Credit will be granted for only one of the following: SPAN324, SPAN347, or SPAN363. An overview of cultural and literary production of Latin America from the late 19th through the early 21st centuries, exploring the production of literary texts in their socio-historical, political, and cultural contexts and development. In Spanish.

SPAN 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

SPAN 388 Language House Spring Colloquium (1) Prerequisite: Residence in Language House. Repeatable to 8 credits if content differs. For students residing in the Language House Immersion Program. Focuses on the development of skills in the target language and acquiring the cultural knowledge of the countries that speak the target language.

SPAN 399 Independent Study in Spanish (1-3) Prerequisite: permission of department. Repeatable to 3 credits. Specific readings in literature or a translation project under the supervision of a faculty member of the department.
SPAN 401 Advanced Composition I (3) Prerequisite: SPAN302 or permission of department. Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

SPAN 402 Advanced Composition II (3) Prerequisite: SPAN401 or permission of department. Compositions and essays with emphasis on stylistics, idiomatic and syntactic structures. Organization and writing of research papers.

SPAN 403 Research and Information Sources in Latin American Studies (1) Two hours of lecture per week. Corequisite: SPAN458. Recommended: SPAN234 and SPAN235. Senior standing. Also offered as LASC403. A foundational course in Latin American Studies information sources. Students will devise a search strategy and explore reference materials available to the Latin American Studies researcher.

SPAN 404 The Short Story in the Middle Ages (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Presents an overview of one of the most relevant genres of the Middle Ages: the short story, which entailed a process of writing and rewriting of common sources.

SPAN 405 The Sentimental Romance (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Explores Spain's Sentimental Romances in the Late Middle Ages with an interdisciplinary critical approach.

SPAN 406 Don Juan Manuel's Fictional and Historical Prose (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Dedicated to the literary production of an important author: Don Juan Manuel. By examining the interaction among writing, reading and the oral acquisition of knowledge in his works, special attention will be given to how the border between fact and fiction is constructed in the Middle Ages.

SPAN 407 Jews, Moslems, and Christians in Medieval Spain (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Presents an overview of the cultural, political and religious coexistence of Jews, Moslems and Christians in Medieval Spain as it changed from tolerance to persecution and survival.

SPAN 408 Great Themes of the Hispanic Literatures (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Major themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

SPAN 409 Great Themes of the Hispanic Literatures (3) Pervading themes in the literature of Spain or Spanish-America. Each theme will be announced when the course is offered.

SPAN 410 Literature of the Middle Ages I (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Spanish literary history from the eleventh through the fifteenth century. Reading of representative texts. This course covers until the year 1350.

SPAN 411 Literature of the Middle Ages II (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Spanish literary history from the eleventh through the fifteenth century. Reading of representative texts. This course covers from 1350 to 1500.

SPAN 412 Women in the Middle Ages: Myths and Daily Life (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Explores the role of women during the Middle Ages and analyzes the active participation of women in a society in which men's occupation was warfare. Also explores "feminine voices" and female representations in the literature of the times.

SPAN 413 Libro de Buen Amor (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Literary traditions in the Libro de buen amor.

SPAN 414 La Celestina (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Literary and cultural traditions in La Celestina.

SPAN 415 Commercial Spanish II (3) Prerequisite: SPAN 315 or permission of department. Sophomore standing. Business Spanish terminology, vocabulary and practices. Emphasis on everyday spoken and written Spanish. Readings and discussions of international topics. Cross-cultural considerations relative to international business operations, including exporting and banking.

SPAN 416 Practicum in Translation V (3) Prerequisite: SPAN357 or permission of department. Translation of complete literary texts from Spanish into English. Presentation and comparison of special problems encountered in individual projects.

SPAN 417 Practicum in Translation VI (3) Prerequisite: SPAN416 or permission of department. Translation of complete literary texts from Spanish into English. Evaluation of different versions of the
SPAN 418 Hispanic Literature in Translation (3) Repeatable to 6 credits if content differs.

SPAN 420 Poetry of the 16th Century (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Selected readings and literary analysis.

SPAN 421 Prose of the 16th Century (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Selected readings and literary analysis.

SPAN 422 Cross-Cultural Communication (3) Prerequisite: SPAN315. Junior standing. Focuses on the relationship of language and culture of those operating in world markets. Particular attention will be given to cross-cultural communication, linguistic systems, and culture specific perceptions of the Hispanic world.

SPAN 424 Drama of the Sixteenth Century (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. From the earliest autos and pasos, the development of Spanish drama anterior to Lope de Vega, including Cervantes.

SPAN 425 Introduction to Hispanic Linguistics I: Basic Concepts (3) Prerequisite: SPAN301 or equivalent or permission of department. This course begins with an introduction to general concepts in linguistics, from language function and the brain to communication, culture, and thought, and their relation to other disciplines in the social sciences. The main purpose of this course is to provide an overview of Hispanic linguistics through multiple perspectives, while exploring the areas of Spanish morphology, syntax, and semantics. This course will also focus on the structural tendencies of Spanish through a variety of practical activities.

SPAN 426 Introduction to Hispanic Linguistics II: Language in Use (3) Two hours of lecture and one hour of discussion/recitation per week. Prerequisite: SPAN301 or permission of department. Recommended: SPAN425. Also offered as SPAN626. Designed for students without previous experience in Linguistics. Focus on language variation and use, linguistic change, and bilingualism.

SPAN 430 Cervantes: Don Quijote (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324.

SPAN 431 Cervantes: Novelas Ejemplares and Entremeses (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324.

SPAN 432 Colonial Latin American Literature (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Examines the key themes, writers, literary movements, and cultural debates of the colonial period.

SPAN 433 Women and Culture in Colonial Latin America (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Considers questions of women and historical production, women writers in colonial times, and contemporary literary interpretations of colonial realities. Debates the continued legacy of female archetypes from the colonial period to the present, and epistemological questions regarding the production of knowledge.

SPAN 434 Poetry of the 17th Century (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Selected readings, literary analysis, and discussion of the outstanding poetry of the period, in the light of the historical background.

SPAN 435 Prose of the 17th Century (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Selected readings, literary analysis, and discussion of the outstanding prose of the period, in the light of the historical background.

SPAN 436 Spanish Baroque Drama (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Reading and critique of the major dramas of the Spanish Golden Age: Lope De Vega, Cervantes, Tirso De Molina and Calderon. This course will be taught in Spanish.

SPAN 437 Drama of the Seventeenth Century (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Drama after Lope de Vega to Calderon de la Barca and the decline of the Spanish theater.

SPAN 438 Special Topics in Colonial Latin America (3) Prerequisites: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Repeatable to 9 credits if content differs. The conquest and colonization of the New World produced a textual corpus of invaluable importance for the foundation of Spanish American literary tradition. Special topics (themes, authors, debates, etc.) relevant to the Colonial period will be addressed.

SPAN 440 Literature of the Eighteenth Century (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Traditionalism, Neo-Classicism, and Pre-Romanticism in prose, poetry, and the theater; esthetics and poetics of the enlightenment.
SPAN 446 Encounters of Atlantic Cultures (3) Prerequisites: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Emphasis will be placed on the Hispanic literature and artistic production resulting from the cultural exchange of the two sides of the Atlantic. Also, examines canonical as well as less known texts from the 16th century to the present with a cross-cultural, transnational and multiethnic lens.

SPAN 448 Special Topics in Latin American Civilization (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Repeatable to 6 credits if content differs. Intensive independent study of a selected topic related to Latin American civilization.

SPAN 449 Special Topics in Spanish Civilization (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Repeatable to 6 credits if content differs. An intensive study of a selected topic related to Spanish civilization.

SPAN 450 The Hispanic Caribbean (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Credit will be granted for only one of the following: SPAN408C or SPAN450. Formerly SPAN 408C. Explores the Hispanic Caribbean as "island spaces" of multiple migrations and cultural identities, as sites of colonial experiences and post-colonial debates.

SPAN 451 Contemporary Cuban Culture, Literature, and Film (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Explores all the phases of the 1959 Cuban Revolution as depicted in the art it produced within the island and in the greater Cuban diaspora.

SPAN 452 The Romantic Movement in Spain (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Poetry, prose and drama of the Romantic and Post-Romantic periods.

SPAN 454 Nineteenth Century Fiction (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Significant novels of the nineteenth century.

SPAN 456 Nineteenth Century Drama and Poetry (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Significant dramas and poetry of the Realist Period.

SPAN 458 Senior Capstone Course in Latin American Studies (3) Three hours of lecture per week. Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Recommended: SPAN403. Senior standing. Also offered as LASC458. Capstone course for advanced students in the Latin American Studies Certificate Program or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

SPAN 459 Latin American Women Writers (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Repeatable to 9 credits if content differs. Emphasis will be placed on contemporary Latin American women writers.

SPAN 460 The Generation of 1898 and Its Successors (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Authors and works of all genres of the generation of 1898 and those of the immediately succeeding generation.

SPAN 461 The Generation of 1898 and Its Successors (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Authors and works of all genres of the generation of 1898 and those of the immediately succeeding generation.

SPAN 462 Twentieth Century Drama (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Significant plays of the twentieth century.

SPAN 463 Latin American Drama (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Emphasis will be placed on Latin American plays of the twentieth century.

SPAN 464 Contemporary Spanish Poetry (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Spanish poetry from the generation of 1927 to the present.

SPAN 466 The Contemporary Spanish Novel (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. The novel and the short story from 1940 to the present.

SPAN 467 Latin American Short Story (3) Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. A pivotal genre in modern Latin American literature: The Short Story will be examined.

SPAN 468 Modernism and Post-Modernism in Spain and Spanish-America (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Repeatable to 9 credits if content differs. A study of the most important works and authors of both movements in Spain and Spanish-America.

SPAN 470 United States Latino Literature (3) Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324.
Introduction to U.S. Latino literature through exploration of narrative, poetry, and drama by Chicano, Nuyorican, and Cuban American writers. Discussion of socio-historical issues involved in construction of Latino cultural identity in literature.

**SPAN 471 United States Latina Fiction (3)** Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. An introduction to United States latina fiction through the study of short stories, novels, poetry, etc. It explores strategies of representation by women of color.

**SPAN 472 Latin American Perspectives on the United States (3)** Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Latin Americans have grappled with the looming and often conflicting presence of the United States in the Western Hemisphere and as a world power. Latin American discursive responses to the United States will be examined.

**SPAN 473 U.S. Latino Performance (3)** Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. An introduction to United States Latino Performance texts by Chicano, Nuyorican, Cuban-American, Dominican, Central-American and others.

**SPAN 474 Central American Literatures, Cultures, and Histories (3)** Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. An overview of Central American history and cultural production, focusing primarily but not exclusively on literary texts.

**SPAN 478 Special Topics in United States Latino Cultures (3)** Prerequisite: SPAN321, SPAN322, SPAN323, or SPAN324. 45 semester hours. Repeatable to 9 credits if content differs. Explores special topics in US Latino Cultures, ranging from Chicano, Nuyorican, Cuban-American, Dominican, Central-American and other border cultural identities.

**SPAN 479 Honors Thesis (3-6)** Prerequisite: admittance to honors program in Spanish and Portuguese Department. Repeatable to 6 credits if content differs. Researching and writing an honors thesis under the direction of a professor.

**SPAN 480 Spanish-American Essay (3)** Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. A study of the socio-political contents and aesthetic qualities of representative works from the colonial to the contemporary period.

**SPAN 481 Spanish American Essay (3)** Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. A study of the socio-political contents and aesthetic qualities of representative works from the colonial to the contemporary period, with emphasis on the essay of the twentieth century.

**SPAN 488 Spanish-American Fiction (3)** Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Representative novels and/or short stories from the Wars of Independence to the present or close analysis of major contemporary works. Subject will be announced each time course is offered.

**SPAN 489 Spanish-American Fiction (3)** Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Representative novels and/or short stories from the Wars of Independence to the present or close analysis of major contemporary works. Subject will be announced each time course is offered.

**SPAN 491 Honors Reading Course: Poetry (3)** Supervised reading to be taken by students admitted to the honors program or upon consultation with the instructor.

**SPAN 492 Honors Reading Course (3)** Supervised reading to be taken by students admitted to the honors program or upon consultation with the instructor.

**SPAN 493 Honors Reading Course: Drama (3)** Supervised reading to be taken by students admitted to the honors program or upon consultation with the instructor.

**SPAN 495 Honors Reading (3)** Prerequisite: admittance to Spanish and Portuguese Honors or permission of department. Supervised reading.

**SPAN 498 Spanish-American Poetry (3)** Prerequisite: SPAN321, SPAN322, SPAN323 or SPAN324. Main trends, authors and works from the conquest to Ruben Dario.
Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: STAT - Statistics and Probability

Course Number: 

Search

Courses in "STAT-Statistics and Probability"

STAT - Statistics and Probability

STAT 100 Elementary Statistics and Probability (3) Prerequisite: permission of Math Department based on satisfactory score on MATHMATICS PLACEMENT EXAM; or MATH110, MATH112, MATH113, or MATH115. Not open to students who have completed MATH111 or any MATH or STAT course with a prerequisite of MATH141. Credit will be granted for only one of the following: MATH111 or STAT100. Simplest tests of statistical hypotheses; applications to before-and-after and matched pair studies. Events, probability, combinations, independence. Binomial probabilities, confidence limits. Random variables, expected values, median, variance. Tests based on ranks. Law of large numbers, normal approximation. Estimates of mean and variance.

STAT 386 Experiential Learning (3-6) Prerequisite: Learning Proposal approved by the Office of
Experiential Learning Programs, faculty sponsor, and student’s internship sponsor. Junior standing.

**STAT 400 Applied Probability and Statistics I (3)** Prerequisite: MATH141. Not acceptable toward graduate degrees in STAT, AMSC, or MATH. Credit will be granted for only one of the following: BMGT231, ENEE324 or STAT400. These courses are not interchangeable. Consult your program requirements or advisor for what is acceptable toward your program of study. Random variables, standard distributions, moments, law of large numbers and central limit theorem. Sampling methods, estimation of parameters, testing of hypotheses.


**STAT 405 Stochastic Models for Queues and Networks (3)** Prerequisite: STAT400 or ENEE324. Credit will be granted for only one of the following: BMGT435 or STAT405. Review of probability and random variables: Generating functions. Poisson and renewal processes. Single server queues with random customer arrivals. Markov models, balance equations. Examples of queuing networks. Applications to computer and communications networks.

**STAT 410 Introduction to Probability Theory (3)** Prerequisite: MATH240 and MATH241. Also offered as SURV410. Credit will be granted for only one of the following: STAT410 or SURV410. Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments. Characteristic functions. Limit theorems.

**STAT 420 Introduction to Statistics (3)** Prerequisite: STAT410 or SURV410. Also offered as SURV420. Credit will be granted for only one of the following: STAT420 or SURV420. Point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood. Confidence intervals for parameters of normal distribution. Hypothesis testing, most powerful tests, likelihood ratio tests. Chi-square tests, analysis of variance, regression, correlation. Nonparametric methods.

**STAT 430 Introduction to Statistical Computing with SAS (3)** Prerequisite: STAT400 or permission of instructor. Descriptive and inferential statistics. SAS software: numerical and graphical data summaries; merging, sorting and splitting data sets. Least squares, regression, graphics and informal diagnostics, interpreting results. Categorical data, lifetime data, time series. Applications to engineering, life science, business and social science.

**STAT 440 Sampling Theory (3)** Prerequisite: STAT401 or STAT420. Also offered as SURV440. Credit will be granted for only one of the following: STAT440 or SURV440. Simple random sampling. Sampling for proportions. Estimation of sample size. Sampling with varying probabilities. Sampling: stratified, systematic, cluster, double, sequential, incomplete.


**STAT 470 Actuarial Mathematics (3)** Prerequisite: Calculus through MATH240 and MATH241. Recommended: STAT400. Major mathematical ideas involved in calculation of life insurance premiums, including compound interest and present valuation of future income streams; probability distribution and expected values derived from life tables; the interpolation of probability distributions from values estimated at one-year multiples; the 'Law of Large Numbers' describing the regular probabilistic behavior of large populations of independent individuals; and the detailed calculation of expected present values arising in insurance problems.

**STAT 498 Selected Topics in Statistics (1-6)** Prerequisite: permission of department. Repeatable to 16 credits. Topics of special interest to advanced undergraduate students will be offered occasionally under the general guidance of the MATH/STAT major committee. Students register for reading in statistics under this number.

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Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: SURV - Survey Methodology

Course Number: 

Search

Courses in “SURV-Survey Methodology”

SURV - Survey Methodology

SURV 400 Fundamentals of Survey Methodology (3) Prerequisite: STAT100 or permission of department. Credit will be granted for only one of the following: SURV699M or SURV400. Formerly SURV 699M. Introduces the student to a set of principles of survey design that are the basis of standard practices in the field. The course exposes the student to both observational and experimental methods to test key hypotheses about the nature of human behavior that affect the quality of survey data. It will also present important statistical concepts and techniques in simple design, execution, and estimation, as well as models of behavior describing errors in responding to survey questions. Not acceptable to graduate degrees in SURV.

SURV 410 Introduction to Probability Theory (3) Prerequisite: MATH240; and MATH241 or permission of department. Also offered as STAT410. Credit will be granted for only one of the following: SURV410 or
STAT410. Probability and its properties. Random variables and distribution functions in one and several dimensions. Moments, characteristic functions, and limit theorems.

**SURV 420 Introduction to Statistics (3)** Prerequisite: SURV410 or STAT410. Also offered as STAT420. Credit will be granted for only one of the following: STAT420 or SURV420. Mathematical statistics, presenting point estimation, sufficiency, completeness, Cramer-Rao inequality, maximum likelihood, confidence intervals for parameters of normal distributions, chi-square tests, analysis of variance, regression, correlation, and nonparametric methods.

**SURV 440 Sampling Theory (3)** Prerequisite: STAT401 or STAT420. Not open to students who have completed STAT440. Simple random sampling, sampling for proportions, estimation of sample size, sampling with varying probabilities of selection, stratification, systematic selection, cluster sampling, double sampling, and sequential sampling.

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Use the search box below to view the approved courses.

Select Program: THET - Theatre

Course Number: Search

Courses in "THET-Theatre"

THET - Theatre

THET 110 Introduction to the Theatre (3) Introduction to the people of the theatre: actors, directors, designers and backstage personnel. The core and characteristics of a play script; theatrical forms and styles; and theatre history.

THET 111 Making Theatre: Art and Scholarship (3) Prerequisite: THET110 or permission of department. Systematic introduction to the tools and techniques used by theatre practitioners.

THET 112 Fundamentals of Performance (3) Prerequisite: For Theatre majors or permission of department. Freshman standing. Examines the history and origins of performance in various cultures, types of
performance on and off stage, and the space where performance happens.

**THET 113 Fundamentals of Theatre History (3)** For Theatre majors or permission of department. Freshman standing. Explores the process of artistic and cultural creation by tracing major developments in theatre and drama from Greeks to the present.

**THET 114 Fundamentals of Theatre Craft (3)** Two hours of lecture and three hours of laboratory per week. For Theatre majors or permission of department. Freshman standing. An introduction in basic theatre technology and craftsmanship. Students will learn the process of realizing a theatrical production through classroom instruction and participation in a University production.

**THET 115 Fundamentals of Play Analysis (3)** For Theatre majors or permission of department. Freshman standing. Explores four different, but overlapping, approaches to script analysis: storytelling, character, dramaturgy, and criticism.

**THET 116 Fundamentals of Theatrical Design (3)** Two hours of lecture and three hours of laboratory per week. Prerequisite: Theatre Majors or permission of department. Recommended: THET113 or THET115. Freshman standing. Examines theatre as an environmental art that is realized through collaboration between set, costume, and lighting designers.

**THET 120 Introduction to Acting (3)** Two hours of lecture and two hours of laboratory per week. For non-majors only. Through scene study, exercises, and improvisation, an appreciation is developed for the working habits of actors which will aid them in rehearsal as well as performance.

**THET 170 Theatre Craft I (3)** Two hours of lecture and one hour of laboratory per week. A survey of the fundamentals of theatrical production with emphasis on scenery construction. Practical work on Theatre Department productions is included.

**THET 171 Theatre Craft II (3)** Two hours of lecture and one hour of laboratory per week. A survey of the fundamentals of theatrical production with emphasis on costume construction and lighting design. Practical work on University Theatre productions is included.

**THET 195 Gender and Performance (3)** Recommended: THET112 and THET113. Intersections between recent research on gender and public performance through history, including theatre, film, and television.

**THET 199 Independent Study (1-3)** Prerequisite: permission of instructor. Freshman standing. Repeatable to 6 credits if content differs. An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic, lighting, or costume designs, or a stage production.

**THET 210 Movement for Actors (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: THET112, THET113, THET114, THET115, and THET116. Not open to students who have completed 60 credits or THET421. Credit will be granted for only one of the following: THET210 or THET421. Formerly THET 421. Focuses on increasing a performer’s presence on stage. Will include the F.M. Alexander technique, movement improvisation, exercises for balance, strength, flexibility and stamina.

**THET 220 Acting: Foundations (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: THET112, THET113, THET114, THET115 and THET116. For THET majors only. Exercises structured to develop the actor’s concentration, imagination, sense and emotional memory. Introduces tools for textual and character analysis.

**THET 221 Voice for the Actor (3)** Prerequisites: THET110, THET220 and by audition and permission of department. Freeing the natural voice. Exploration and connection of the actor’s voice to thought, impulse, and emotion. Work in release of tension, resonance, extending the voice and articulation.

**THET 240 African Americans in Film and Theatre (3)** Two hours of lecture and two hours of discussion/recitation per week. Survey of the history of the image of African Americans in film and theatre.

**THET 273 Theatre Graphics I (3)** Prerequisite: THET112, THET113, THET114, THET115 and THET116; or permission of department. An introduction in graphic techniques for theatrical design and production. The emphasis is on drafting by hand, with an introduction to computer-aided drafting and design.

**THET 279 Theatre Workshop I (1)** One hour of laboratory per week. Prerequisite: permission of department. Repeatable to 6 credits if content differs. Supervised participation in backstage staffing of University Theatre productions.

**THET 282 Stage Makeup (3)** Credit will be granted for only one of the following: THET182 or THET282. Formerly THET 182. Students learn to design and execute character makeup based on research and script analysis. Studying fundamental facial anatomy, the class learns to manipulate light and shadow with makeup techniques.
to enhance and alter the shape of facial features. Once these techniques are mastered, the class moves on to more complex exercises, including Old Age, Facial Hair, Wounds and Fantasy.

**THET 284 Stage Costume Construction I (3)** Prerequisite: permission of department. Credit will be granted for only one of the following: THET284 or THET486. Formerly THET 486. Study and practical experience in garment construction and related costume crafts as used in theatre costume design. Flat pattern development, corset construction, theatrical sewing techniques and organization of the costume construction process.

**THET 286 Experiential Learning I (1-3)** Five hours of laboratory per week. Prerequisite: THET112, THET113, THET114, THET115, THET116 and permission of department. Sophomore standing. Not open to THET students who have completed THET386. Introductory internship in theatre. Constructed to help students in their sophomore year gain practical experience in a supportive work environment in the theatre. Student must research and propose internship to a Faculty Advisor and Internship Venue.

**THET 288 Fundamentals Project (1)** Prerequisite: Four of the following: THET112, THET113, THET114, THET115, and THET116; or permission of department. Sophomore standing. For THET majors only. Repeatable to 2 credits if content differs. The Fundamentals Project is required of all theatre majors following successful completion of the Fundamentals Core. This project is a collaborative performance presented to an audience of faculty and theatre students during the fall semester of a student's second year. It is a prerequisite for continuing to more advanced classes.

**THET 290 American Theatre 1750 to 1890 (3)** Formerly THET 310. Traces the evolution of the American theatre from its beginning through 1890, aligning this theatre with the major shifts and movements of American society itself, and arriving at the uniquely American theatre and culture.

**THET 291 American Theatre 1890-Present (3)** Formerly THET 310. Traces the evolution of the American theatre during the twentieth century, aligning this theatre with the major shifts and movements of American society itself, and arriving at the uniquely American theatre and culture of today.

**THET 293 Black Theatre and Performance I (3)** Sophomore standing. Thematic and historical survey of African-American drama from the late nineteenth century to the 1960s. Emphasis on sociopolitical context, thematic thrust, issues, styles, the aesthetic reflected in the work, impact on African-American and general theatre audiences.

**THET 294 Black Theatre and Performance II (3)** Sophomore standing. Thematic and historical survey of African-American drama from the 1960s to the present. Emphasis on sociopolitical context, thematic thrust, issues, styles, the aesthetic reflected in the work, impact on African-American and general theatre audiences.

**THET 299 Independent Study (1-3)** Prerequisite: permission of instructor. Sophomore standing. Repeatable to 6 credits if content differs. An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers; scenic, lighting, or costume designs; or a stage production.

**THET 310 Voice for the Actor I (3)** Prerequisite: THET210, THET220, an audition, and permission of department. Sophomore standing. Not open to students who have completed THET221. Credit will be granted for only one of the following: THET221 or THET310. Freeing the natural voice. In-depth experience of connection of actor's voice to thought, impulse and emotion. Tools for releasing tension, increasing resonance and range, and refining articulation will be explored.

**THET 320 Acting II (3)** Two hours of lecture and two hours of laboratory per week. Prerequisites: THET110 and THET220. Corequisites: THET111 and THET221. Continuation of THET 220. Emphasis on the fundamentals of acting: personalization, objectives, and characterization.

**THET 324 Acting: Character Development (3)** Four hours of laboratory per week. Prerequisite: THET210, THET220, an audition, and permission of department. Junior standing. Not open to students who have completed THET320. European-based physical approach to acting. Primary focus on character development, may include creating original characters and learning how to bring to life an already scripted character. Techniques to explore the soul and psychology of characters and their physical qualities, voice, rhythm and movement.

**THET 325 Acting: The Actor's Process Part I (3)** Two hours of lecture and two hours of laboratory per week. Prerequisites: THET112, THET113, THET114, THET115, THET116, THET288; THET210 or THET220. Junior standing. A lecture-laboratory course dealing with the techniques of coordinating, designing and guiding the production of a script through to performance. Study and practice in stage composition, movement, pacing, script and character analysis, and rehearsal routines. Emphasis on methods of communicating a script to an audience of faculty and theatre students during the fall semester of a student's second year. It is a prerequisite for continuing to more advanced classes.

**THET 328 Fundamentals Project (1)** Prerequisite: Four of the following: THET112, THET113, THET114, THET115, and THET116; or permission of department. Sophomore standing. For THET majors only. Repeatable to 2 credits if content differs. The Fundamentals Project is required of all theatre majors following successful completion of the Fundamentals Core. This project is a collaborative performance presented to an audience of faculty and theatre students during the fall semester of a student's second year. It is a prerequisite for continuing to more advanced classes.

**THET 330 Play Directing I (3)** Three hours of lecture and three hours of laboratory per week. Prerequisites: THET112, THET113, THET114, THET115, THET116, THET288; THET210 or THET220. Junior standing. A lecture-laboratory course dealing with the techniques of coordinating, designing and guiding the production of a script through to performance. Study and practice in stage composition, movement, pacing, script and character analysis, and rehearsal routines. Emphasis on methods of communicating a script to an audience of faculty and theatre students during the fall semester of a student's second year. It is a prerequisite for continuing to more advanced classes.
THET 340 Screenplay Analysis (3) Prerequisite: permission of department. Sophomore standing. Credit will be granted for only one of the following: THET340 or THET499G. Formerly THET 499G. Examines the narrative structure of screenplays of major motion pictures.

THET 341 Screenwriting I (3) One hour of lecture and two hours of discussion/recitation per week. Prerequisite: junior English. Introduction to screenwriting, emphasizing visual literacy necessary for effective television and film writing.

THET 350 History of American Musical Theatre and Popular Culture (3) An exploration of the complicated history of some of America's most popular entertainments from learned pig shows, to vaudeville, to musical theatre. It connects the history of America's diverse racial and ethnic communities to the evolution of forms like minstrelsy, Wild West Shows, and showboat theatre. It also traces the history of our most popular and enduring art form--the musical comedy--from the Ziegfeld Follies to Rent and beyond.

THET 371 Scenic Design I (3) Prerequisites: THET112, THET113, THET114, THET115, THET116, THET273, and THET288; or permission of department. Credit will be granted for only one of the following: THET371 or THET375. A study of design theory and style. Methods and techniques of coordination of all elements of scenic design for theatre.

THET 372 Stage Property Design (3) Prerequisite: THET114 or permission of department. Materials and techniques for the design and execution of stage properties with special emphasis on period research, special materials, and special effects.

THET 373 Rendering for the Theatre I (3) Prerequisite: THET112, THET113, THET114, THET115, and THET116; or permission of department. Credit will be granted for only one of the following: THET373 or THET484. Formerly THET 484. A study in the techniques and tools of drawing and painting. It is designed for the student to develop rendering and drawing skills for theatrical design presentation.

THET 377 Lighting Design I (3) Prerequisite: THET112, THET113, THET114, THET115, THET116, THET273, and THET288; or permission of department. Credit will be granted for only one of the following: THET377 or THET476. Formerly THET 476. A study of the theories of electrification, instruments, design, color, and control for the stage. Practical work on productions.

THET 380 Sound Design (3) Two hours of lecture and two hours of laboratory per week. Prerequisite: THET114, THET115, and THET116 or permission of instructor. Sophomore standing. Theatre Sound Design is a first course in designing sound for stage productions.

THET 383 Costume Design I (3) Prerequisites: THET112, THET113, THET114, THET115, THET116, and THET373; or permission of department. Credit will be granted for only one of the following: THET383 or THET480. Formerly THET 480. Basic principles of theatre costume design and introduction to rendering skills. Emphasis on development of design conception, unity, character statement, basic clothing design and period style adaptation.

THET 384 Stage Costume Construction II (3) Prerequisite: THET284 or permission of department. Credit will be granted for only one of the following: THET384 or THET487. Formerly THET 487. Study and practical experience in the construction of stage costumes, props and accessories. Pattern development by draping, millinery, and crafts.

THET 386 Experiential Learning (3-6) Prerequisite: permission of department. Junior standing.

THET 387 Fundamentals of Theatrical Design (3) Prerequisites: THET110 and THET111; or permission of department. Recommended: THET170, THET171. Survey of costume, lighting, scenery, and sound design fundamentals.

THET 388 Special Topics in Performance Studies (3) Prerequisite: THET112, THET113, THET114, THET115, and THET116. Sophomore standing. Repeatable to 6 credits if content differs. Performance Studies is a broad discipline that offers strategies for exploring diverse texts from diverse perspectives. Students are encouraged to explore critical and practical approaches to research and performance, including the History and Practice of Festivals and Carnival Performances, Comedy, Performance in Everyday Life, Contemporary Theatre at the Margins, and Stage Adaptation.

THET 399 Independent Study (1-3) Prerequisite: permission of instructor. Sophomore standing. Repeatable to 6 credits if content differs. An independent study in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate in term papers; scenic, lighting, or costume designs; or a stage production.

THET 408 Seminar: Theory and Performance Studies (3) Three hours of discussion/recitation per week. Prerequisite: THET488 or THET489 and permission of department. Senior standing. Repeatable to 6 credits if
content differs. Also offered as THET608. Credit will be granted for only one of the following: THET408 or THET608. Studies in theatre theory and performance studies from classical antiquity to the present.

**THET 410 The American Theatre (3)** Prerequisite: THET488 or THET489; and permission of instructor. Senior standing. Also offered as THET610. Credit will be granted for only one of the following: THET410 or THET610. The American theatre from 1750 to 1950, including the position of theatre in culture, its typical features, and major artists.

**THET 411 Voice for the Actor II (3)** Four hours of laboratory per week. Prerequisite: THET112, THET113, THET114, THET115, THET116, THET288, an audition, and permission of department. Junior standing. Credit will be granted for only one of the following: THET311, THET411 or THET499R. Formerly THET 311. Learn the International Phonetic Alphabet (IPA) and apply to exploration of sound and language. Designed to increase voice and speech awareness, and create a base knowledge from which to approach any accent or dialect.

**THET 420 Acting IV: Language and the Actor (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: THET310, THET324, THET325, an audition, and permission of department. Explores the actor’s relationship to language, particularly heightened poetic language, in order to: develop the ability to embody language and vocally and physically project the images; apply an intellectual understanding of the inherent structural, poetic, and rhetorical techniques of heightened language in combination with action theory; and access the inner states of character while expressing them through text.

**THET 424 Movement II: Advanced Studies in Movement for the Actor (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: THET310, THET324, THET325, an audition, and permission of department. Junior standing. A deeper exploration of how to use the actor's instrument for dramatic expression. Continuing work in the F.M. Alexander Technique and foundational exercise to help actors learn what they need to prepare for rehearsal and performance. Other techniques may include theatrical styles, physical character, dramatic use and play with space and rhythm and masks.

**THET 425 Acting: The Acting Process Part II (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: THET310, THET324, THET325, an audition, and permission of department. A deeper exploration of the work begun in THET325. A continuation of creating a personal process through which the actor can confidently approach any genre of play. Special focus on status and subtext and the world of the playwright.

**THET 429 Actor’s Studio (1-3)** Prerequisite: permission of department. Repeatable to 6 credits. Participation in dramatic roles executed under faculty supervision in the department’s productions. Eligible students must make commitments and plan performances with course instructor during pre-registration.

**THET 430 Directing II: Working with Actors (3)** Prerequisite: THET330 or THET324 or THET325 or permission of instructor. Discussion of the preparation procedures and rehearsal practices necessary for the presentation of a variety of theatrical styles and forms. Emphasis on understanding the relationship between the director, the actor, the script and the audience. A series of student directed scenes supplemented by attendance at theatre productions.

**THET 441 Screenwriting for TV and Film II (3)** One hour of lecture and three hours of discussion/recitation per week. Prerequisite: THET341. Not open to students who have completed THET427 and THET627. Advanced workshop and seminar for students completing feature length screenplays started in Screenwriting I.

**THET 442 Visual Storytelling (3)** Prerequisite: permission of department. Credit will be granted for only one of the following: THET442 or THET499R. Formerly THET 499R. The basic elements of visual literacy are incorporated, using the camera as a creative tool for constructing stories.

**THET 451 Musical Theatre Workshop I (3)** Prerequisites: audition and permission of department. Development of the ability to move, act and express through the media of lyric and music.

**THET 452 Musical Theatre Workshop II (3)** Prerequisite: Audition and permission of department. Development of the ability to move, act and express through the media of lyric and music from the integrated musicals of the 1960s through the development of concert and rock/pop musicals.

**THET 457 Advanced Lighting Technology (3)** Four hours of lecture per week. Prerequisite: THET114 and THET116; or permission of instructor. Sophomore standing. Technological innovations such as moving lights, color changers, and LED are studied from the lighting designer's perspective. Students will have the opportunity to use the equipment in the lighting lab.

**THET 460 Theatre Management I (3)** Prerequisites: THET110 and THET111 or permission of department. The practical tools of theatre management: production philosophies, selecting and balancing a season, tickets and operations, budgeting, graphic arts production, advertising, publicity and other promotional devices.

**THET 461 Theatre Management II (3)** Prerequisites: THET110, THET111 and THET460; or permission of department. Case studies, discussions, lectures and projects concerning advanced theatre management
decision making and administration, including such areas as personnel relations, contract negotiations, theatrical unions, fundraising, touring, audience development and public relations.

**THET 465 History of Fashion for the Theatre (3)** Four hours of lecture per week. Prerequisite: THET116, or permission of instructor. Sophomore standing. A survey of Western clothing from the Ancient Worlds through 20th Century. A discussion of the cultural contexts of various trends in fashion through an examination of art, industry and textiles.

**THET 470 Advanced Stage Craft (3)** Two hours of lecture and two hours of laboratory per week. Prerequisite: THET114 or permission of instructor. Credit will be granted for only one of the following: THET470 or THET499B. Formerly THET 499B. An introduction to technical design and management. Topics include rigging, structural mechanics, and construction in materials other than wood.

**THET 471 Design Studio in Scenery (3)** Prerequisite: THET371 and permission of department. Also offered as THET639. Credit will be granted for only one of the following: THET471 or THET639. Advanced study of scenic design for the theatre. Particular design projects will vary.

**THET 472 Scene Painting (3)** Prerequisites: THET114 or permission of department. Credit will be granted for only one of the following: THET472 or THET473. Scene painting techniques and materials. Three-dimensional realistic scenery and non-realistic two-dimensional projects.

**THET 473 Rendering for the Theatre II (3)** Four hours of laboratory per week. Prerequisite: THET 373 or permission of instructor. Continued study in rendering techniques and graphic skills for theatrical design presentation. Emphasis on style, technique and use of different artistic media.

**THET 474 Stage Management (3)** Prerequisite: Four of the five fundamental courses (THET112, THET113, THET114, THET115, THET116) and permission of instructor. Sophomore standing. Intensive practical study of the techniques and procedures for stage management.

**THET 475 History of Art, Architecture, and Decor for the Theatre (3)** Prerequisite: THET112, THET113, THET114, THET115, and THET116; and permission of department. Also offered as THET670. Credit will be granted for only one of the following: THET475 or THET670. Study of Western art, architecture, and decor and their practical application to theatrical production.

**THET 477 Design Studio in Lighting (3)** Four hours of laboratory per week. Prerequisite: THET377 and permission of department. Also offered as THET659. Credit will be granted for only one of the following: THET477 or THET659. Designed for students who have successfully completed THET377 and wish to further develop their lighting design skills. Emphasis is on theoretical design of productions and realized light lab projects. Particular design projects will vary.

**THET 479 Production Practicum (1-3)** Prerequisite: THET112, THET113, THET114, THET115, and THET116; or permission of department. Repeatable to 6 credits if content differs. Designed to expand students' practical knowledge and skills through working on Department of Theatre productions.

**THET 480 Audio Technology (3)** Two hours of lecture and three hours of laboratory per week. Prerequisite: THET114; or permission of department. First technical course in the installation and operation of professional sound systems. This course explores current standards of both analog and digital audio theory as well as recording and reinforcement techniques.

**THET 481 Theatre Graphics II (3)** One hour of lecture and six hours of laboratory per week. Prerequisites: THET114, THET116, and THET273. Sophomore standing. Study and practical application of computer generated graphical design for use in theatrical production.

**THET 482 Scene Painting II (3)** One hour of lecture and four hours of laboratory per week. Prerequisite: THET472 or permission of instructor. Sophomore standing. Advanced study of theatrical scenic painting.

**THET 483 Design Studio Costume (3)** Four hours of laboratory per week. Prerequisite: THET383 and permission of department. Also offered as THET649. Credit will be granted for only one of the following: THET384, THET483, or THET649. Formerly THET 384. Intermediate and advanced principles of theatrical costume design rendering skills. Emphasis on development of design concept, unity, character statement, and research. Particular design projects will vary.

**THET 486 History of Modern Theory & Performance (3)** Prerequisites: THET488 or THET489 and permission of instructor. Also offered as THET686. Credit will be granted for only one of the following: THET486 or THET686. Modern dramatic and performance theory from realism to the absurd with special emphasis on the European and American avant-garde.

**THET 487 Postmodern Theatre and Performance (3)** Prerequisite: THET488 or THET489; and permission of department. Also offered as THET687. Credit will be granted for only one of the following: THET487, THET497 or THET687. Formerly THET 497. American and European experimental performance...
since 1960 will be explored. Topics include postmodern performance, political performance, pornography and performance, popular culture and performance, and gender and performance. Topics are treated historically and theoretically. Student-produced performance projects are an important component of the seminar.

**THET 488 Special Topics in Theatre History Before 1800 (3)** Prerequisite: THET112, THET113, THET114, THET115, and THET116. Junior standing. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: THET488 or THET490. Formerly THET 490. Topics in the history of world theatre and performance from the Greeks through 1800.

**THET 489 Special Topics in Theatre History from 1800 to Present (3)** Prerequisite: THET112, THET113, THET114, THET115, and THET116. Junior standing. Repeatable to 6 credits if content differs. Credit will be granted for only one of the following: THET489 or THET491. Formerly THET 491. Topics in the history of world theatre and performance from 1800 to present.

**THET 490 History of Theatre I (3)** Prerequisites: THET110 & THET111; or THET113 & THET115; or permission of department. The history of Western theatre from its origins in classical antiquity through the mid-seventeenth century with emphasis on plays and playwrights, architecture and decor, acting and costuming, and significant personalities. Extensive use of graphic materials, play readings, and production projects.

**THET 491 Theatre History II (3)** Prerequisite: THET110, THET111, and THET490; or permission of department. The history of Western theatre from the late seventeenth century to the late nineteenth century, with emphasis on plays and playwrights, architecture and decor, acting and costuming, and significant personalities. Extensive use of graphic materials, play readings and production projects.

**THET 495 History of Theatrical Theory and Criticism (3)** The development of theatrical theory and criticism from the Greeks to the modern theorists. The philosophical basis of theatre as an art form. Important theorists and the practical application of their theories in either play scripts or theatrical productions. Required attendance at selected live theatre productions.

**THET 496 African-American Women Filmmakers (3)** Also offered as WMST496. Credit will be granted for only one of the following: THET496 or WMST496. Examines the cinematic artistry of African-American women filmmakers and the ways in which these films address the dual and inseparable roles of race and gender.

**THET 497 Non-Traditional Theatre (3)** Seminar exploring American and European experimental performance since 1960. Topics include experimental theatre, performance art, pornography and performance, gender and performance, and popular culture and performance. Topics are treated historically and theoretically. Student-produced performance projects are an important component of the seminar.

**THET 498 Seminar: Theatre History (3)** Three hours of discussion/recitation per week. Prerequisite: THET488 or THET489; and permission of instructor. Senior standing. Repeatable to 6 credits if content differs. Also offered as THET698. Credit will be granted for only one of the following: THET498 or THET698. Studies in theatre history from classical antiquity to the present.

**THET 499 Independent Study (1-3)** Prerequisite: permission of department. Repeatable to 6 credits. An independent study course in which each student completes an assigned major theatre project under close faculty supervision. Projects may culminate with term papers, scenic or costume designs, or a stage production.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

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Use the search box below to view the approved courses.

Select Program: UMEI - Maryland English Institute
Course Number: 

Courses in "UMEI-Maryland English Institute"

UMEI - Maryland English Institute

UMEI 001 English as a Foreign Language: Beginning (12) 22 hours of discussion/recitation per week. Intensive course for the non-native speaker of English who has little or no previous knowledge of English. Focus on the rapid acquisition of the basic features of English grammar and pronunciation and on speaking and understanding American English; reading and writing appropriate to the level will be included. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

UMEI 002 English as a Foreign Language: Intermediate I (12) 22 hours of discussion/recitation per week. Intensive course for the non-native speaker of English who has had some previous instruction in English. Emphasis on improving listening and speaking skills, on mastering intermediate grammatical
structures, and on expanding vocabulary. Includes practice in reading and writing appropriate to the level. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

**UMEI 003 English as a Foreign Language: Intermediate II (12)** 22 hours of discussion/recitation per week. Intensive course for the non-native speaker of English who has mastered the essential structures of English grammar. Emphasis on improving communicative skills for a wide range of linguistic situations, on rapid expansion of vocabulary, and on improving reading comprehension and basic writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

**UMEI 004 English as a Foreign Language: Intermediate III (12)** 22 hours of discussion/recitation per week. Intensive course for the non-native speaker of English who has a good command of the basic features of spoken and written English. Emphasis on refining speaking and listening skills, on improving reading speed and comprehension of academic texts, and on developing writing skills for academic courses. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

**UMEI 005 Advanced English as a Foreign Language (6)** 12 hours of discussion/recitation per week. Semi-intensive course for the nearly proficient non-native speaker of English needing additional language instruction prior to undertaking full-time academic study. Speaking and listening skills; improvement of reading speed and comprehension; and development of writing skills. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

**UMEI 006 English Pronunciation (2)** Three hours of discussion/recitation per week. Individualized class for the non-native speaker of English. Diagnosis of individual pronunciation problems. Practice in the correct pronunciation of English sounds and improvement of ability to speak English with proper stress and intonation patterns. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.

**UMEI 007 Advanced Writing for International Students (3)** Four hours of discussion/recitation per week. Open to graduate students only. Special fee. A writing skills course for the non-native speaker of English with a good command of spoken English. This course does not carry credit towards any degree at the University and does not count in the retention plan.

**UMEI 008 Advanced Oral Communication Skills (2)** Four hours of discussion/recitation per week. Prerequisite: permission of department. For advanced non-native speakers of English. Practice in speaking skills relevant to the academic situation. Improvement of speaking skills for various classroom activities such as participating in discussions, making appointments with professors, asking for information and presenting oral reports. Special fee required for this course. This course does not carry credit towards any degree at the University and does not count in the retention plan.
Chapter 8: Approved Courses

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Use the search box below to view the approved courses.

Select Program: UNIV - University Courses

Course Number: _Search_

Courses in "UNIV-University Courses"

UNIV - University Courses

UNIV 099 Internship Seminar () Prerequisite: Minimum 2.0 GPA (undergraduates), 3.0 GPA (graduate students); approval of the Career Center and instructor. Complements students' supervised work experiences. Open to all majors; all class levels. Involves exploring career options, developing professional work skills, examining the relationship between internship and academic coursework. Course may be repeated.

UNIV 100 The Student in the University (1) Two hours of lecture per week for 12 weeks. Not open to students who have completed EDCP1080. Credit will be granted for only one of the following: EDCP1080 or UNIV100. Formerly EDCP 1080. Introduces students to University life. In a small classroom setting, students will explore how to successfully bridge the gap between high school and college. Study skills, career decision-making, and student development processes will be explored.
UNIV 101 The Student in the University and Introduction to Computer Resources (2) Two hours of lecture per week. Introduces students to University life and current computer resources. In a small classroom setting, students will explore the world of higher education and current technological advances available to them. Additionally, students will explore current resources both internal and external to the University, and how to utilize the World Wide Web as a research tool.

UNIV 105 Pre-Medical and Allied Health Colloquium-I (1) Credit will be granted for only one of the following: UNIV 100 or UNIV 105. Introduces students to University life and to the pre-medical and healthcare fields.

UNIV 108 Markets and Society Colloquium (1) Restricted to students in the Markets and Society program. Provides students with information about the world of business careers. Students hear from a variety of guest speakers, including faculty and professionals from the business community. Students engage in the career exploration process, including self-assessment, information gathering, decision making, and goal setting.

UNIV 188 Introduction to Global Communities (1) Prerequisite: Admittance to the Global Communities Program. Repeatable to 2 credits if content differs. Students to explore culture, identity, value construction and contemporary issues in global society.

UNIV 189 Global Communities Colloquium II (1) Prerequisite: Admittance to the Global Communities Program. Repeatable to 2 credits if content differs. Students acquire intercultural understanding and competency for functioning both personally and professionally in an international environment.

UNIV 205 Pre-medical and Allied Health Colloquium II (1) Prerequisite: UNIV105 and must be in the Pre-Med/Allied Health learning community; or permission of department. Second semester colloquium of the Pre-Medical and Allied Health Learning Community. Students participate in interactive activities and lectures, meet guest speakers with expertise in healthcare, participate in field trips and in experiential opportunities.

UNIV 288 Global Communities Colloquium III (1-3) Prerequisite: Admittance to Global Communities; UNIV188 and UNIV189, or permission of instructor. Repeatable to 3 credits if content differs. Special topics course (Research, Service-Learning, Practicum or Internship).

UNIV 289 Global Communities Colloquium IV (1-3) Prerequisite: Admittance to Global Communities; UNIV188, UNIV189, UNIV288 or permission of instructor. Repeatable to 3 credits if content differs. Designed to prepare students for personal and professional life in a global society.

UNIV 326 Beyond the Classroom Seminar I (2) Prerequisite: For students in the Beyond the Classroom (BTC) living and learning program. Development of effective written and oral communication skills for a variety of constituents. Development of civic engagement principles. Students prepare professional portfolios in preparation for a semester-long internship.

UNIV 326 Beyond the Classroom Seminar II (1) One hour of lecture per week. Prerequisite: UNIV325; for students in the Beyond the Classroom (BTC) living and learning program. Seminar for students in internships and service-learning experiences as context for applying communication skills and knowledge of civic engagement leadership skills first introduced in UNIV325. Must be taken concurrently with experiential learning practicum.

UNIV 348 Federal Semester Seminar (3) Prerequisite: permission of Office of Undergraduate Studies. For Federal Semester participants only. Junior standing. Repeatable to 6 credits if content differs. This topical seminar will approach Federal policy formation through a combination of framework-based and content-specific considerations. Content and themes will vary. The Federal Semester is an offering of the Office of Undergraduate Studies in conjunction with several academic colleges and the University Career Center. Further information is available at http://www.federalsemester.umd.edu/

UNIV 349 Federal Semester Experiential Learning (1-6) Prerequisite: UNIV348 and learning proposal approved by the Office of Undergraduate Studies and student's internship sponsor. For Federal Semester participants only. Junior standing. Repeatable to 6 credits if content differs. This is the internship component of the Federal Semester program, an offering of the Office of Undergraduate Studies in conjunction with several academic colleges and the University Career Center. Further information is available at http://www.federalsemester.umd.edu/

UNIV 389 Special Topics (3)

UNIV 399 Experiential Learning (1-3) Prerequisite: learning proposal approved by the Office of Undergraduate Studies and student’s internship sponsor. Junior standing. Repeatable to 6 credits if content differs. Experiential learning offered in conjunction with certain designated Office of Undergraduate Studies programs.
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Select Program: URSP - Urban Studies and Planning
Course Number: Search

Courses in "URSP-Urban Studies and Planning"

URSP - Urban Studies and Planning

URSP 100 Challenge of the Cities (3) Formerly URBS 100. Contemporary urban patterns, trends and problems. Major urban issues, such as: population change, the economy, land use, housing, neighborhood development, fiscal and unemployment crises, and social, environmental, and political controversies of metropolitan areas. International urbanization patterns and policies.

URSP 118 Selected Topics in Urban Planning (3) Repeatable to 9 credits if content differs. Selected Topic courses address particular issues relating to urban studies and planning. They are focused on specific areas of theory and practice as they relate to the study of urban areas.
URSP 372 Diversity and the City (3) Exploration of the different needs of diverse economic, racial/ethnic, and gender groups that live and work in cities, the historical background of differences, the impact of societal structures and group cultures, and how public and private policies do and can affect different groups.

URSP 399 Independent Study (1-3) Junior standing. Repeatable to 6 credits if content differs. Formerly URBS 399. Directed research and study of selected aspects of urban affairs.

URSP 488 Selected Topics in Urban Studies and Planning (1-3) Prerequisite: permission of department. Repeatable to 6 credits if content differs. Formerly URBS 488. Topics of special interest to advanced urban studies students.

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Select Program: WMST - Women's Studies

Course Number: Search

Courses in "WMST-Women's Studies"

WMST - Women's Studies

WMST 200 Introduction to Women's Studies: Women and Society (3) An interdisciplinary study of the status, roles, and experiences of women in society. Sources from a variety of fields such as literature, psychology, history, and anthropology, focusing on the writings of women.

WMST 210 Women in America to 1880 (3) Also offered as HIST210. Credit will be granted for only one of the following: WMST210 or HIST210. An examination of the economic, family, and political roles of colonial, slave, immigrant and frontier women in America from the pre-industrial colonial period through the early stages of nineteenth century industrialization and urbanization.
WMST 211 Women in America Since 1880 (3) Also offered as HIST211. Credit will be granted for only one of the following: WMST211 or HIST211. An examination of women's changing roles in working class and middle class families, the effects of industrialization on women's economic activities and status, and women's involvement in political and social struggles, including those for women's rights, birth control, and civil rights.

WMST 212 Women in Western Europe 1750-Present (3) Also offered as HIST212. Credit will be granted for only one of the following: WMST212 or HIST212. An analysis of the economic, family, and political roles of European women from 1750 to the present. The effects of industrialization on women's work and status, the demographic parameters of women's lives, and women's participation in political events from market riots to suffrage struggles.

WMST 241 Women Writers of French Expression in Translation (3) Also offered as FREN241. Credit will be granted for only one of the following: WMST241 or FREN241. Works and ideas of 20th century women writers of French in Canada, Africa, the Caribbean, and France. Taught in English.

WMST 250 Introduction to Women's Studies: Women, Art and Culture (3) An examination of women's creative powers as expressed in selected examples of music, film, art, drama, poetry, fiction, and other literature. Explores women's creativity in relation to families, religion, education, ethnicity, class, sexuality, and within a cultural tradition shaped by women.

WMST 255 Introduction to Literature by Women (3) Also offered as ENGL250. Credit will be granted for only one of the following: WMST255 or ENGL250. Images of women in literature by and about women.

WMST 263 Introduction to Black Women's Studies (3) Freshman standing. Also offered as AASP298I. Credit will be granted for only one of the following: WMST263 or AASP298I. Formerly WMST298A. Interdisciplinary exploration of Black women, culture and society in the United States. Drawn primarily from the social sciences and history with complementary material from literature and the arts.

WMST 267 Introduction to Black Women's Cultural Studies (3) Credit will be granted for only one of the following: WMST267 or WMST298A. Formerly WMST298A. An introduction to black women's cultural production and to an understanding of how the social norms and ideals about women within black communities and in the larger society have shaped black women's own self-perceptions and behaviors and thus their cultural production.

WMST 275 World Literature by Women (3) Also offered as CMLT275. Credit will be granted for only one of the following: WMST275 or CMLT275. Comparative study of selected works by women writers of several countries, exploring points of intersection and divergence in women's literary representations.

WMST 281 Women in German Literature and Society (3) Also offered as GERM281. Credit will be granted for only one of the following: WMST281 or GERM281. A study of changing literary images and social roles of women from the beginning of the 19th century to the present.

WMST 298 Special Topics in Women's Studies (1-3) Repeatable to 6 credits if content differs.

WMST 300 Feminist Reconceptualizations of Knowledge (3) Prerequisite: permission of department. For WMST majors only. An examination of how the interdisciplinary study of women and gender has generated new questions, challenged traditional methodologies and offered insights on the ways we come to learn, know, and teach. Explores the impact of feminist thinking on various disciplines.

WMST 314 Black Women in United States History (3) Sophomore standing. Also offered as AASP313. Credit will be granted for only one of the following: AASP498W, AASP313, WMST314 or WMST498N. Formerly WMST498N. Black American women's history from slavery to the present. Focused on gaining a fuller understanding of the effect of race, class and gender on the life cycles and multiple roles of Black women as mothers, daughters, wives, workers and social-change agents.

WMST 320 Women in Classical Antiquity (3) Also offered as CLAS320. Credit will be granted for only one of the following: WMST320 or CLAS320. A study of women's image and reality in ancient Greek and Roman societies through an examination of literary, linguistic, historical, legal, and artistic evidence; special emphasis on women's role in the family, views of female sexuality, and the place of women in creative art. Readings in primary sources in translation and modern critical writings.

WMST 325 The Sociology of Gender (3) Prerequisite: Three credits of sociology. Also offered as SOCY325. Credit will be granted for only one of the following: WMST325 or SOCY325. Institutional bases of gender roles and gender inequality, cultural perspectives on gender, gender socialization, feminism, and gender-role change. Emphasis on contemporary American society.

WMST 326 Biology of Reproduction (3) Prerequisite: BSCI105 or permission of department. Also offered as BSCI342. Credit will be granted for only one of the following: WMST326 or BSCI342. The biology of the reproductive system, in particular, in human reproduction. Hormone actions, sperm production, ovulation, sexual differentiation, sexual behavior, contraception, pregnancy, lactation, maternal behavior and menopause.
WMST 336 Psychology of Women (3) Prerequisite: PSYC100. Also offered as PSYC336. Credit will be granted for only one of the following: WMST336 or PSYC336. A study of the biology, life span development, socialization, personality, mental health, and special issues of women.

WMST 348 Literary Works by Women (3) Prerequisite: Two lower-level English courses, at least one in literature; or permission of department. Repeatable to 6 credits if content differs. Also offered as ENGL348. Credit will be granted for only one of the following: WMST348 or ENGL348. The context, form, style and meaning of literary works by women.

WMST 350 Feminist Pedagogy (6) Prerequisite: permission of department. General application of feminist methodology to teaching and communication skills, teaching strategies, motivation, classroom dynamics and knowledge of students' development and learning styles.

WMST 360 Caribbean Women (3) An interdisciplinary analysis of the lives and experiences of women across the Caribbean region, through an examination of their roles in individual, national, social and cultural formations. Special emphasis on contemporary women's issues and organizations.

WMST 370 Black Feminist Thought (3) Prerequisite: One course in WMST or AASP. Examines the ideas, words and actions of Black women writers, speakers, artists, and activists in the United States.

WMST 380 Feminist Analysis of the Workplace (6) Prerequisite: permission of department. An examination of the world of work from a feminist perspective through theory and experience. Designed to provide students with experiences in work situations that have social, economic, educational and/or political impact on women's lives. Students will develop the skill to theoretically analyse their experience and practically implement feminist models in the workplace.

WMST 386 Experiential Learning (1-6) Prerequisite: Learning Proposal approved by Women's Studies Academic Advisor. Junior standing.

WMST 400 Theories of Feminism (3) Prerequisite: one course in WMST or a course cross-listed with a WMST course. A study of the multiplicity of feminist theories which have been developed to explain women's position in the family, the workplace, and society. Major feminist writings are considered in the context of their historical moment and in the context of the intellectual traditions to which they relate.

WMST 408 Literature by Women Before 1800 (3) Prerequisite: Two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Also offered as ENGL408. Credit will be granted for only one of the following: WMST408 or ENGL408. Selected writings by women in the medieval and early modern era.

WMST 410 Women of the African Diaspora (3) Explores the lives, experiences, and cultures of women of Africa and the African diaspora—African-America, the Caribbean, and Afro-Latin America. A variety of resources and materials will be used providing a distinctive interdisciplinary perspective.

WMST 420 Asian American Women: The Social Construction of Gender (3) Also offered as AAST420. Credit will be granted for only one of the following: AAST420 or WMST420. Examines the intersection of gender, race and class as it relates to Asian American women in the United States; how institutionalized cultural and social statuses of gender, race, ethnicity and social class, produce and reproduce inequality within the lives of Asian American women.

WMST 425 Gender Roles and Social Institutions (3) Also offered as SOCY425. Credit will be granted for only one of the following: SOCY425 or WMST425. Relationship between gender roles and the structure of one or more social institutions (e.g., the economy, the family, the political system, religion, education). The incorporation of gender roles into social institutions; perpetuation or transformation of sex roles by social institutions; how changing gender roles affect social institutions.

WMST 430 Gender Issues in Families (3) Prerequisite: SOCY100, SOCY105, or PSYC100. Also offered as FMST430. Credit will be granted for only one of the following: WMST430 or FMST430. The development of historical, cultural, developmental and psychosocial aspects of masculinity and femininity within the context of contemporary families, and the implications for interpersonal relations.

WMST 436 The Legal Status of Women (3) Prerequisite: GVPT231. Also offered as GVPT436. Credit will be granted for only one of the following: WMST436 or GVPT436. An examination of judicial interpretation and application of common, statutory, and constitutional law as these affect the status of women in American society.

WMST 444 Feminist Critical Theory (3) Prerequisite: ENGL250, WMST200 or WMST250. Also offered as ENGL444. Credit will be granted for only one of the following: WMST444 or ENGL444. Issues in contemporary feminist thought that have particular relevance to textual studies, such as theories of language, literature, culture, interpretation, and identity.
WMST 448 Literature by Women of Color (3) Prerequisite: Two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Also offered as ENGL448. Credit will be granted for only one of the following: WMST448 or ENGL448. Literature by women of color in the United States, Britain, and in colonial and post-colonial countries.

WMST 452 Women in the Media (3) Also offered as JOUR452. Credit will be granted for only one of the following: WMST452 or JOUR452. Participation and portrayal of women in the mass media from colonial to contemporary times.

WMST 453 Victorian Women in England, France, and the United States (3) Also offered as HIST493. Credit will be granted for only one of the following: HIST493 or WMST453. Examines the lives of middle and upper-class women in England, France, and the United States during the Victorian era. Topics include gender roles, work, domesticity, marriage, sexuality, double standards and women's rights.

WMST 454 Women in Africa (3) Also offered as HIST494. Credit will be granted for only one of the following: HIST494 or WMST454. The place of women in African societies: the role and function of families; institutions such as marriage, birthing, and child rearing; ritual markers in women's lives; women in the workplace; women's associates; women's health issues; measures designed to control women's behavior; women and development.

WMST 455 Women in Medieval Culture and Society (3) Also offered as HIST495. Credit will be granted for only one of the following: HIST495 or WMST455. Medieval women's identity and cultural roles: the condition, rank and rights of medieval women; their access to power; a study of women's writings and the constraints of social constructs upon the female authorial voice; and contemporary assumptions about women.

WMST 457 Redefining Gender in the U.S., 1880-1935 (3) Also offered as HIST433. Credit will be granted for only one of the following: HIST433 or WMST457. Exploring changing perceptions of gender in the U.S., 1880-1935, and the impact of those changes on the day to day lives of men and women.

WMST 458 Literature by Women After 1800 (3) Prerequisite: Two English courses in literature or permission of department. Repeatable to 9 credits if content differs. Also offered as ENGL458. Credit will be granted for only one of the following: WMST458 or ENGL458. Selected writings by women after 1800.

WMST 466 Feminist Perspectives on Women in Art (3) Also offered as ARTH466. Principal focus on European and American women artists of the 19th and 20th centuries, in the context of the new scholarship on women.

WMST 468 Feminist Cultural Studies (3) Repeatable to 9 credits if content differs. Each version of this course focuses on one or several forms of popular culture -- such as TV, music, film, cyber-culture, or genre fiction (for example, science fiction) -- and demonstrates how feminists value, critique and explain such forms. Tools of feminist cultural studies include economic and social analyses of power, race, sexuality, gender, class, nationality, religion, technology, and globalization processes.

WMST 471 Women's Health (3) Also offered as HLTH471. The women's health movement from the perspective of consumerism and feminism. The physician-patient relationship in the gynecological and other medical settings. The gynecological exam, gynecological problems, contraception, abortion, pregnancy, breast and cervical cancer and surgical procedures. Psychological aspects of gynecological concerns.

WMST 488 Senior Seminar (3) Prerequisite: permission of department. Repeatable to 9 credits if content differs. Seminar for advanced majors in women's studies or other students with appropriate preparation. Interdisciplinary topics will vary each semester.

WMST 493 Jewish Women in International Perspective (3) Prerequisite: One course in Women's Studies, preferably WMST200 or WMST250. Also offered as JWST493. Credit will be granted for only one of the following: WMST493 or JWST492 or JWST493. Using memoirs, essays, poetry, short stories, films, music and the visual arts, course investigates what it means/has meant to define oneself as a Jewish woman across lines of difference. Focus is largely on the secular dimensions of Jewish women's lives but will also explore the implications of Jewish law and religious practices for Jewish women. Our perspective will be international, including Ashkenazi and Sephardi women.

WMST 494 Lesbian Communities and Differences (3) Prerequisite: One course in Women's Studies, preferably WMST200 or WMST250. The meanings of lesbian communities across many lines of difference. Using lesbian-feminists of the 1970s as a starting point, we will look both back and forward in history, tracing changes and exploring the meanings of these in their social and historical contexts.

WMST 496 African-American Women Filmmakers (3) Also offered as THET496. Credit will be granted for only one of the following: WMST496 or THET496. Examines the cinematic artistry of African-American women filmmakers and the ways in which these films address the dual and inseparable roles of race and gender.
WMST 498 Advanced Special Topics in Women's Studies (1-3) Prerequisite: permission of department. Repeatable to 9 credits if content differs.

WMST 499 Independent Study (1-3) Prerequisite: One course in women's studies and permission of department. Repeatable to 9 credits if content differs. Research and writing or specific readings on a topic selected by the student and supervised by a faculty member of the Women's Studies Department.

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Chapter 8: Approved Courses

The following list includes undergraduate courses that have been approved as of April 2007. Courses added after that date do not appear in this list. Courses eliminated after that date may still appear. Not every course is offered regularly. Students should consult the Schedule of Classes to ascertain which courses are actually offered during a given semester.

COURSE NUMBERING SYSTEM

<table>
<thead>
<tr>
<th>Number</th>
<th>Eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>000-099</td>
<td>Non-credit course</td>
</tr>
<tr>
<td>100-199</td>
<td>Primarily freshman course</td>
</tr>
<tr>
<td>200-299</td>
<td>Primarily sophomore course</td>
</tr>
<tr>
<td>300-399</td>
<td>Junior, senior course not acceptable for credit toward graduate degrees</td>
</tr>
<tr>
<td>386-387</td>
<td>Campus-wide internship courses; refer to information describing Experiential Learning</td>
</tr>
<tr>
<td>400-499</td>
<td>Junior, senior course acceptable for credit toward some graduate degree</td>
</tr>
<tr>
<td>500-599</td>
<td>Professional School course (Dentistry, Architecture, Law, Medicine) or post-baccalaureate course</td>
</tr>
<tr>
<td>600-899</td>
<td>Course restricted to graduate students</td>
</tr>
<tr>
<td>799</td>
<td>Master Thesis credit</td>
</tr>
<tr>
<td>899</td>
<td>Doctoral Dissertation credit</td>
</tr>
</tbody>
</table>

Use the search box below to view the approved courses.

Select Program: WRLD - World Courses
Course Number: Search

Courses in "WRLD-World Courses"

WRLD - World Courses

WRLD 125 The Creative Drive: A World Course: Creativity in Music, Architecture and Science (3) Two hours of lecture and one hour of discussion/recitation per week. Credit will be granted for only one of the following: UNIV118A, ARHU125 or WRLD125. Formerly ARHU 125. Interdisciplinary course team taught by faculty from music, architecture, and mathematics. Study of great creative works and creative personalities in music, architecture and science.

WRLD 135 To Stem the Flow: The Nile, Technology, Politics and the Environment (3) Two hours of lecture and one hour of discussion/recitation per week. Students may count this course for CORE in ONE of three areas: Life Sciences, non-lab {LS} Physical Sciences, non-lab {PS} Social or Political History {SH}. Credit will be granted for only one of the following: UNIV138A or WRLD135. Formerly UNIV 138A. This
interdisciplinary, team-taught course looks at the interplay of engineering, the environment, biological communities, and politics from the historical context of Egyptian development of the Nile River Valley and the Aswan High Dam.

**WRLD 168 Topics in Ethics (3)** Two hours of lecture and one hour of discussion/recitation per week. Repeatable to 6 credits if content differs. Formerly UNIV 168. Interdisciplinary course team taught by faculty from different disciplines. Comparative perspectives on ethical concerns across major topics and issues of world importance.

**WRLD 235 The Power of Water: Politics, Technology, and Development of (3)** the Mekong River Two hours of lecture plus a 75 minute learning laboratory each week. An interdisciplinary course that looks at the politics, technology, environmental, and cultural issues of modern development of the Mekong River from China to Vietnam.

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Chapter 9: University of Maryland, College Park and University of Maryland Administrators and Faculty

University of Maryland, College Park and University System of Maryland Officials

University of Maryland, College Park (as of July 1, 2007)
C. D. Mote, Jr., President
Nariman Farvardin, Senior Vice President for Academic Affairs and Provost
Linda M. Clement, Vice President for Student Affairs
Melvin Bernstein, Vice President for Research
Jeffrey C. Huskamp, Vice President and Chief Information Officer
Douglas Duncan, Vice President for Administrative Affairs
Brodie Remington, Vice President for University Relations

University System of Maryland
William "Brit" Kirwan, Chancellor
Irwin L. Goldstein, Senior Vice Chancellor for Academic Affairs
Joseph F. Vivona, Vice Chancellor for Administration and Finance
Leonard Raley, Vice Chancellor for Advancement and President,
University System of Maryland Foundation

Board of Regents (as of July 1, 2007)
Clifford M. Kendall, Chair
Thomas B. Finan, Jr.
Patricia S. Florestano
R. Michael Gill
Barry P. Gossett
Alicia Coro Hoffman
Olan M. Johnson
Francis X. Kelly, Jr.
Marvin Mandel
C. Thomas McMillen
Robert L. Mitchell
David H. Nevins
A. Dwight Pettit
Robert L. Pevenstein
Roger L. Richardson, ex officio
James L. Shea
Caitlin Heidemann, Student Regent

Use the search box below to list faculty members by last name or to search by first or last name.

Last Name Begins With:  < < None > >
First And/Or Last Name:  
Search

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Chapter 10: Appendices

- Appendix A: Human Relations Code
- Appendix B: University of Maryland Policy and Procedures on Sexual Harassment
- Appendix C: Code of Student Conduct
- Appendix D: University Policy on Disclosure of Student Records - Family Educational Rights and Privacy Act
- Appendix E: Smoking Policy and Guidelines
- Appendix F: Board of Regents Resolution on Academic Integrity
- Appendix G: Statute of Limitations for the Termination of Degree Programs
- Appendix H: VIII-2.70 Policy on Student Classification for Admission and Tuition Purposes
- Appendix I: Undergraduate Student Grievance Procedure
- Appendix K: Policy on Participation by Students in Class Exercises That Involve Animals
- Appendix L: Completion of Interrupted Degree
- Appendix M: Required Disclosure of University Procedure on the Collection, Use and Protection of Student Social Security Numbers (SSN)
- Appendix N: Transfer Credit Policy Maryland Higher Education Commission (Title 13 B)
- Appendix O: Code of Academic Integrity
Student Grievance Procedure
Appendix J: Procedures for Review of Alleged Arbitrary and Capricious Grading
Appendix K: Policy on Participation by Students in Class Exercises That Involve Animals
Appendix L: Completion of Interrupted Degree
Appendix M: Required Disclosure of University Procedure on the Collection, Use and Protection of Student Social Security Numbers (SSN)
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Appendix O: Code of Academic Integrity
Appendix A: Human Relations Code

**Effective date 18 October, 1976; Revised April 1998; Approved by President, May 6, 1978**

**Article I Purpose**

A. The University of Maryland, College Park, affirms its commitments to a policy of eliminating discrimination on the basis of race, color, creed, sex, sexual orientation, marital status, personal appearance, age, national origin, political affiliation, physical or mental disability, or on the basis of the exercise of rights secured by the First Amendment of the United States Constitution. This code is established to prevent or eradicate such discrimination in accordance with due process within the Campus community. In doing so, the Campus recognizes that it must strive actively and creatively to build a community in which opportunity is equalized.

B. Accordingly, the Campus Senate of the University of Maryland, College Park, establishes this Human Relations Code to:

1. prohibit discrimination as defined in this document within the College Park campus community both by educational programs and, to the extent specified herein, by a formal grievance procedure;
2. establish the responsibilities of the Adjunct Committee on Human Relations of the Senate General Committee on Campus Affairs;
3. establish the responsibilities of the Office of Human Relations Programs in connection with this code;
4. establish mediation and grievance vehicles within the colleges of the campus, in conformity with the campus Affirmative Action Plan;
5. establish the responsibilities of Equal Education and Employment Opportunity (EEO) Officers.

C. Every effort will be made to make students and potential students, employees and potential employees, faculty members and potential faculty members aware of the opportunities that the campus provides for every individual to develop and utilize his or her talents and skills. It is the intent of the campus to enhance among its students and employees respect for each person for that person's own race, ethnic background, sex, or sexual orientation as well as appreciation and respect for the race, ethnic background, sex or sexual orientation of other individuals.

D. Development of a positive and productive atmosphere of human relations on the campus shall be encouraged through effective dialogs and broadening of communications channels. The Adjunct Committee on Human Relations and the Office of Human Relations Programs shall provide support and assistance, as authorized, to any individual or group deemed by them to have a positive probable impact in working toward increased understanding among all individuals and groups on the campus.

E. The Senate Adjunct Committee on Human Relations shall advise the Office of Human Relations Programs in recommending policies that fulfill the provisions of this code. In particular:

1. The Senate Adjunct Committee on Human Relations shall be an adjunct committee of the standing Senate General Committee on Campus Affairs.
2. The purpose of the Senate Adjunct Committee on Human Relations shall be to foster better human relations among all individuals and groups on the campus, to advise in the development of positive and creative human relations programs, to advise in the prevention and eradication of all forms of discrimination prohibited...
Student Grievance Procedure

Appendix J: Procedures for Review of Alleged Arbitrary and Capricious Grading

Appendix K: Policy on Participation by Students in Class Exercises That Involve Animals

Appendix L: Completion of Interrupted Degree

Appendix M: Required Disclosure of University Procedure on the Collection, Use and Protection of Student Social Security Numbers (SSN)

Appendix N: Transfer Credit Policy Maryland Higher Education Commission (Title 13 B)

Appendix O: Code of Academic Integrity

by this code, and to make regular assessments of the state of human relations within the purview of this campus.

3. The functions of the Senate Adjunct Committee on Human Relations may include but are not limited to: requesting the Office of Human Relations Programs to conduct investigations of complaints of discrimination because of race, color, creed, sex, sexual orientation, marital status, personal appearance, age, national origin, political affiliation, physical or mental handicap, or on the basis of the exercise of rights secured by the First Amendment of the United States Constitution; providing an "open forum" for effective dialogue among all segments of the campus community; recommending to appropriate campus bodies educational programs and activities to promote equal rights and understanding; periodically reviewing such programs and activities; initiating studies of campus-sponsored or recognized programs and activities to determine how improvement can be made in respect to human relations; continually reviewing progress toward these ends and making such further recommendations as experience may show to be needed; and participating to the extent set forth herein in formal human relations grievance actions.

F. There shall be an Office of Human Relations Programs directly responsible to the president. This office shall plan, develop, give direction to and coordinate the overall campus effort to prevent and eliminate discrimination based on race, color, creed, sex, sexual orientation, marital status, personal appearance, age, national origin, political affiliation, physical or mental handicap, or on the basis of the exercise of rights secured by the First Amendment of the United States Constitution, in all areas of campus life (this overall effort is referred to herein as the "Human Relations Program"). The office shall represent, and have direct access to, the president, and shall cooperate with the Senate Adjunct Committee on Human Relations on substantive matters concerning human relations. The office shall assist and coordinate the human relations activities of the Equal Employment and Educational Opportunity officers and the equity officers representing the various units of the campus.

The duties and responsibilities of the Office of Human Relations Programs shall include but not be limited to the following: working with deans, directors, and department chairs to ensure full compliance, in spirit as well as in letter, with laws relating to discrimination and with the campus Human Relations Code; advising campus offices in efforts to assist personnel to recognize and take advantage of career opportunities within the campus; working with appropriate offices in the surrounding community on such issues as off-campus housing practices affecting campus students and employees, transportation, etc.; recommending to the Off-Campus Housing Office removal from or reinstatement upon lists of off-campus housing, so as to ensure that listed housing is available on a nondiscriminatory basis. (N.B. any final action taken by the university shall be preceded by proper notice to the property owner involved, and an opportunity to be heard); conducting reviews of compliance with the campus Affirmative Action Plan; initiating and carrying out programs for the elimination and prevention of racism and sexism on campus; distributing this code and informing the campus community of the interpretations of its provisions; sending periodic reports to the president and to the Senate Adjunct Committee on Human Relations concerning the Human Relations Programs; and participating to the extent set forth herein in formal human relations grievance actions.

G. For each of the colleges of the campus, the Division of Administrative Affairs, and the Division of Student Affairs, there shall be an equity officer, who is designated in accordance with the Affirmative Action Plan and who has the duties specified by the campus Affirmative Action Plan and like duties with respect to the forms of discrimination prohibited by this code.

Article II Coverage

A. Kinds of Discrimination Prohibited:

1. Discrimination in employment, job placement, promotion, or other economic benefits on the basis of race, color, creed, sex, sexual orientation, marital status, personal appearance, age, national origin, political affiliation, physical or mental handicap, or on the basis of the exercise of rights secured by the First Amendment of the United States Constitution.

2. Discrimination in criteria of eligibility for access to residence, or for admission to and otherwise in relation to educational, athletic, social, cultural, or other activities of the campus because of race, color, creed, sex, sexual orientation, marital status, personal appearance, age, national origin, political affiliation, physical or mental handicap, or on the basis of the exercise of rights secured by the First Amendment of the United States Constitution.
B. For the purposes of this code, "personal appearance" means the outward appearance of any person, irrespective of sex, with regard to bodily condition or characteristics, manner or style of dress, and manner or style of personal grooming, including, but not limited to, hair style and beards. It shall not relate, however, to the requirement of cleanliness, uniforms, or prescribed standards, when uniformly applied for admittance to a campus facility, or when uniformly applied to a class of employees, or when such bodily conditions or characteristics, or manner or style of dress or personal grooming presents a danger to the health, welfare or safety of any individual.

C. This code shall apply to the campus community. The term "campus community" is limited to campus students, faculty, and staff; and to departments, committees, offices and organizations under the supervision and control of the campus administration.

D. Exceptions

1. The enforcement of Federal, State or County laws and regulations does not constitute prohibited discrimination for purposes of this code. Separate housing or other facilities for men and women, mandatory retirement-age requirements, separate athletic teams when required by athletic conference regulations and political, religious and ethnic/cultural clubs are not prohibited.
2. Discrimination is not prohibited where based on a bona fide job qualification or a qualification required for the fulfillment of bona fide educational or other institutional goals. Complaints concerning the legitimacy of such qualifications may be the subject of human relations grievance actions.
3. The provisions of this code shall not apply to potential students or potential employees of the university. However, applicants for admission or employment who believe they have been discriminated against by any part of the campus community may convey such belief together with all relevant facts to the Office of Human Relations Programs, for informational purposes.
4. The grievance procedures under this code shall not apply to judgments concerning academic performance of students (e.g., grades, dissertation defenses), pending further study and action by the Campus Senate and university administration.
5. The campus, with the advice and approval of the Attorney General's Office, shall review on a continuing basis all new laws and regulations that apply to the campus to determine if any shall require changes in the coverage or exceptions to coverage of this code.

E. This code shall apply to the campus community in relation to, but not only to, the following:

1. All educational, athletic, cultural, and social activities occurring on the campus or in another area under its jurisdiction;
2. All services rendered by the campus to students, faculty, and staff, such as job placement and job recruitment programs and off-campus listings of housing;
3. University-sponsored programs occurring off campus, including cooperative programs, adult education, athletic events, and any regularly scheduled classes;
4. Housing supplied, regulated, or recommended by the campus for students, staff and visitors, including fraternities and sororities;
5. Employment relations between the campus and all of its employees, including matters of promotion in academic rank, academic salary, and termination of faculty status, as limited in III.M.

**Article III Human Relations Enforcement Procedures**

A. In order to identify policies or practices that may reflect discrimination, the Senate Adjunct Committee on Human Relations may request the Office of Human Relations Programs to conduct periodic review of the operation of any unit of the campus. Units shall provide the information necessary for carrying out such reviews. This information shall be submitted through the president's Office. Any such review under the authority granted in this statement of policy shall be undertaken only after specific authorization of the president. In the event that the president fails to authorize an investigation within a reasonable time of the request by the Senate Adjunct Committee on Human Relations, the chair of the Committee shall report that fact, together with reasons as he/she may have received from the president concerning the matter, to the Senate.
B. The Office of Human Relations Programs on its own motion shall identify policies, practices, or patterns of behavior that may reflect discrimination prohibited by this code or that may conflict with any other campus policy concerning human relations or with the campus Affirmative Action Plan, and shall call these to the attention of the appropriate officials of the unit involved and recommend appropriate action. Those subject to allegations of discrimination shall be afforded all the protections of due process. The office shall endeavor by negotiation to eliminate the alleged discrimination. Where such efforts fail, the office may on its own motion report the matter to the president and to the Senate Adjunct Committee on Human Relations. Documentation of the recommendations by the office in all such cases shall be maintained on file by the office.

C. To the maximum extent consistent with the purposes of this code, the confidentiality of personal papers and other records and the principle of privileged communication shall be respected by all persons involved in the enforcement procedures of this code. Nothing in this code shall be construed so as to conflict with the requirements of Article 76A of the Maryland Annotated Code. Persons giving information in connection with the procedures described in this code shall be advised by the person receiving such information of the limits of confidentiality which may properly be observed in code procedures and that all documents may be subject to subpoena in subsequent administrative or judicial proceedings.

D. Any member of the campus community who believes that he or she has been or is being discriminated against in ways prohibited by this code may consult informally and confidentially with the unit EEO Officer and/or the equity officer and/or the Office of Human Relations Programs prior to filing a formal complaint.

E. The Office of Human Relations Programs shall receive formal complaints from any member or group within the Campus community claiming to be aggrieved by alleged discrimination prohibited by this Code and/or any other Campus document or policy relating to human relations practice. Such complaints should give in writing the names of complainant(s) and respondent(s) and the time, the place, and a specific description of the alleged discrimination. Complaints shall be submitted to the Office of Human Relations Programs, or else to the unit EEO Officer or the Equity Administrator. Complaints must be submitted within ninety (90) days of the alleged discrimination act(s) or within ninety (90) days of the first date by which the complainant reasonably Office of Human Relations Programs within five (5) working days of their receipt. Copies of the complaint shall be forwarded by the Office of Human Relations Programs to the respondent and to the appropriate unit Chair has knowledge thereof. Complaints not submitted directly to the Office of Human Relations Programs shall be forwarded to the Office of Human Relations Programs within five (5) working days of their receipt. Copies of the complaint shall be forwarded by the Office of Human Relations Programs to the respondent and to the appropriate unit Chair or Director, Dean or Vice President.

F. Complainants under this code shall be required, as a condition precedent, to waive any alternative campus administrative procedure that may then be available. A complaint that has been heard under some alternative campus procedure cannot subsequently be heard under the procedure of this code. In the case of a complaint heard under the Classified Employees Grievance Procedure, this restriction shall apply only when the complaint has entered Step Three of that procedure.

G. The Office of Human Relations Programs and/or the equity officer shall ensure that each complainant is informed of his/her right to file the complaint with the appropriate State and Federal agencies. Forms for complaints to State and Federal agencies will be provided or the complainant will be informed where they are available.

H. All complaints of discrimination that are not connected with the official functions of the campus or do not fall within the scope of discrimination prohibited by this code shall be referred to the appropriate campus, municipal, County, State, or Federal agencies by the Office of Human Relations Programs.

I. After a complaint has been filed, the Office of Human Relations Programs shall promptly undertake an informal investigation in order to make a preliminary determination as to whether or not the subject matter of the complaint falls within the code, and whether or not there is probable cause for the complaint. This finding shall be reported to the 293 complainant, the respondent, the president, and the chair of the Senate Adjunct Committee on Human Relations. The burden of proof in this investigation and throughout these enforcement procedures rests with the complainant.

J. If the finding is that there is not probable cause to believe that discrimination has been or is being committed within the scope of this code, the Office of Human Relations Programs may
dismiss the complaint. Such dismissal shall be reported to the complainant, the respondent, the president, and the chair of the Senate Adjunct Committee on Human Relations. The complainant in such a case may appeal the dismissal of the case to the Senate Adjunct Committee on Human Relations, which may direct that a Human Relations Grievance Committee conduct a grievance hearing according to the procedures set forth herein, if in the judgment of the Senate Adjunct Committee on Human Relations there is probable cause to believe that discrimination has been or is being committed within the scope of this code. The Senate Adjunct Committee on Human Relations shall have access to the complaint file for this purpose. A record of its deliberations shall be placed in the file according to the procedures established by the Office of Human Relations Programs. If the committee finds no probable cause, it may dismiss the complaint, and report such dismissal to the complainant, the respondent, and the president.

K. If the finding is that there is probable cause to believe that discrimination has been or is being committed within the scope of this code, the Office of Human Relations Programs shall endeavor to eliminate the alleged discrimination by conference conciliation and persuasion. If by this process, an agreement is reached for elimination of the alleged discrimination, the agreement shall be reduced to writing and signed by the respondent, the complainant and the director of the Office of Human Relations Programs. The agreement shall be available to the president, the equity officer, and to the chair of the Senate Adjunct Committee on Human Relations, upon request.

L. If a finding of probable cause is made but no mutually satisfactory solution can be reached under the procedures outlined in K immediately preceding, the Office of Human Relations Programs shall initiate the following procedure: the Office shall notify the Senate Adjunct Committee on Human Relations of the failure to reach a mutually satisfactory solution, whereupon, providing the complainant requests in writing a Human Relations Grievance Hearing, a Human Relations Grievance Committee shall be selected according to the procedures described in Article IV following. Grievance hearing shall be closed unless both parties to the dispute agree that the hearing, or any part thereof, shall be open to the public. All parties to the dispute shall be sent within five (5) working days of the written request of such a hearing, written notification of the time and place of the beginning of the hearing and a specific statement of the charges. Hearings shall be held as promptly as is consistent with allowing adequate time for the parties to prepare their cases. Continuances may be granted within the discretion of the Office of Human Relations Programs. All parties shall have ample opportunity to present their facts and arguments in full during the hearing. All findings, recommendations, and conclusions by the Grievance Committee shall be based solely on the evidence presented during the hearing, and shall be based on a preponderance of the evidence having probative effect. The burden of proof rests with the complainant. The Grievance Committee may be assisted by an advisor. All the parties to the dispute and the Grievance Committee may invite persons to testify during the hearing. Each side shall have the right to cross-examine witnesses. Each party has the right to be represented by counsel or other representative, but the university has no obligation to provide such counsel for any party to the dispute. If a party intends to be represented by legal counsel during the hearing, he/she shall inform the Office of Human Relations Programs of this fact no later than seventy-two (72) hours prior to the hearing, and that office shall provide that information to the other party or parties. A verbatim record shall be kept of all sessions in which testimony and evidence are presented regarding the case, and this record shall be made available to all parties to the dispute at the conclusion of the proceedings. Upon request the chair of the Grievance Committee may, in his or her discretion, recess the hearing to permit review of the record by one or more parties in the conduct of their case. The chair of a Human Relations Grievance Committee with the advice of the advisor, if there is one, shall rule on all matters of procedure and admissibility of evidence. Any member of the committee not concurring in the ruling of the chair may request a closed session of the committee for debate on the point. A majority vote of the committee will determine the final decision. Formal rules of evidence shall not be applicable to any hearing before a Human Relations Grievance Committee, and any evidence or testimony that the committee believes to be relevant to a fair determination of the complaint may be admitted. The committee reserves the right to exclude incompetent, irrelevant, immaterial and repetitious evidence.

M. In cases of allegations regarding prohibited discrimination concerning academic employment matters, a Human Relations Grievance Committee shall not substitute its judgment of academic competence for the judgment of the appropriate colleagues of the complainant. The function of the Grievance Committee shall be to determine

a. whether there were clearly enunciated university, campus and department standards, policies, procedures, and priorities by which to assess the merit of the complaint, and whether the complainant was given a reasonable opportunity
N. Within ten (10) working days after hearing all the evidence and arguments, the Human Relations Grievance Committee shall prepare a written decision based solely on the evidence presented at the hearing. This decision shall include a summary of the evidence before the committee and the committee's findings as to whether or not a violation of the code has occurred, and the recommendations of the committee. Grievance Committees may recommend whatever forms of relief they deem appropriate, but must take due cognizance of the limitations imposed by State law and by the procedures established by the Board of Regents, for example, the procedures by which promotion in academic rank is achieved. Within five (5) working days after the decision has been filed in the Office of Human Relations Programs, the director of that office will formally notify all parties to the dispute, the president, and the Senate Adjunct Committee on Human Relations of the decision.

O. The president shall within ten (10) working days of receipt of the decision of the Human Relations Grievance Committee issue an order specifying what actions, if any, must be taken by individuals or groups found to be guilty of violating the provisions of this code.

P. When a hearing has been scheduled by an outside agency or court, the Office of Human Relations Programs may, with the approval of the Senate Adjunct Committee on Human Relations, prior to the convening of a Human Relations Grievance Committee to hear a case, postpone or terminate the campus grievance proceedings when such postponement or termination is in its judgment warranted by administrative considerations such as staff limitations and workload, or at the request of a party upon a showing that the campus hearing will either conflict with the off-campus hearing, or that participation in the campus hearing will unreasonably burden a party's preparation of his/her case or otherwise work to his/her prejudice. Such postponement or termination shall be report- ed to the complainant, respondent, and president. In any case where a complaint has been the subject of prior administrative or judicial resolution or where a complaint becomes the subject of such resolution during the course of proceedings under this code, the procedures of this code will not be applicable or will terminate, as the case may be.

Q. The president shall provide a written explanation of the order whenever that order is not in keeping with the findings and recommendations of the Human Relations Grievance Committee. This explanation shall be sent to all parties to the dispute, to the chair of the Senate Adjunct Committee on Human Relations, to the director of the Human Relations Programs, and to the chair of the Senate. The chair of the Senate Adjunct Committee on Human Relations shall report to the Senate Executive Committee concerning the order and explanation at the next meeting of the Executive Committee, and that body shall put the matter on the agenda of the next meeting of the Senate.

R. When required by law, copies of the Human Relations Grievance Committee's findings and recommendations and of the Chancellor's order and explanation, if any, shall be sent to the State and Federal agencies charged with enforcement of Article 49B of the Annotated Code of Maryland and the Equal Employment Opportunity Act of 1968 or their successors.

S. When a complainant receives a decision on his/her charge of discrimination from a Human Relations Grievance Committee that decision shall not be subject to review under any grievance procedure in force on the campus.

T. No affirmative relief shall be made to a complainant by the University unless the complainant executes the following release as part of a settlement agreement:

The complainant hereby waives, releases, and covenants not to sue the University of Maryland or its officers, agents, or employees with respect to any matters that were or might have been alleged as charges filed under the Human Relations Code in the instant case, subject to performance by the University of Maryland, its officers, agents, and employees, of the promises contained in this settlement agreement.

Article IV Constitution of Human Relations Grievance Committee

A. A Human Relations Grievance Committee shall consist of five members selected by an affirmative vote of at least two members of a selection panel consisting of 1) The vice president of the unit of the campus with- in which the alleged discrimination falls. In cases of disputed jurisdiction, decisions as to which vice president shall participate will be made by the several vice presidents. 2) The director of the Office of Human Relations Programs. 3) The chair of the
Senate Adjunct Committee on Human Relations. If any of these persons is unable to participate, he or she shall designate a suitable replacement.

B. The selection of a Human Relations Grievance Committee shall be made in such a way as to promote a fair and impartial judgment. An effort shall be made to constitute the Grievance Committee of persons reasonably familiar with the kind of employment or other situation that the case concerns.

C. A determined effort shall be made to gain the consent of complainant and respondent concerning the membership of the Grievance Committee. If in the judgment of the selection panel such efforts become unreasonably prolonged, membership will be determined by majority vote of the selection panel.

D. None of the members of a Grievance Committee shall have been involved in the action that is the subject of the complaint. This selection panel shall remove a member of a Grievance Committee whenever it finds that member to have a personal involvement in that case; and may excuse a member from serving on the Grievance Committee on grounds of illness or on other reasonable grounds.

E. Members of the Senate Adjunct Committee on Human Relations shall not be eligible concurrently for inclusion on Human Relations Grievance Committees.

F. The chair of a Human Relations Grievance Committee shall be elected by the members of the committee.

G. Members of a Human Relations Grievance Committee and those officially involved in a hearing shall not be penalized either academically or financially for time missed from work or classes during official meetings of the committee.

Article V The Equal Education and Employment Opportunity Officer

A. Equal Education and Employment Opportunity Officers shall be instrumental in the implementation of the Human Relations Code within each unit of the College Park campus.

B. Employees on all levels within each unit of the campus will have access to the assistance of an EEEO Officer. In non-academic units, EEEO Officers shall be elected by unit employees under the supervision of the equity officer within whose responsibility the unit falls, or shall be selected by the unit director in consultation with the appropriate equity officer, in either case in accordance with the Affirmative Action Plan of that unit. EEEO Officers in the academic colleges shall be chosen in the manner prescribed by the council of each college.

C. The functions of EEEO Officers shall include but not be limited to:

1. Advising unit administrators with respect to the preparation plans, procedures, regulations, reports, and other matters pertaining to the campus Human Relations Program.
2. Evaluating periodically the effectiveness and sufficiency of unit Affirmative Action Plans and other unit plans in relation to the goals of this code, and reporting these to unit administrators with recommendations as to what improvements or corrections are needed.
3. Participating in the development of policies and programs within units with respect to hiring and recruitment, training and upgrading, and in all matters pertaining to the elimination of discrimination prohibited by this code. If a unit fails to develop policies and programs of this nature, it is the task of the EEEO officer to act in an advocacy role and call this fact first to the attention of the unit administrator, and if no responsive action ensues, then to the Collegiate Assistant for Affirmative Action. The EEEO officer is free at all times to report such cases directly to the Office of Human Relations Programs and the Senate Adjunct Committee on Human Relations.
4. Serving in a liaison capacity between the unit to which he/she is assigned and all segments of its personnel and attempting to remedy problems brought to his/her attention regarding alleged discrimination.
5. Advising students or employees of the unit who have reason to believe that discrimination as defined in this code is occurring. At the request of the aggrieved person the EEEO officer shall keep any or all aspects of the grievance confidential until a formal complaint has been filed. If the aggrieved so requests, the EEEO officer shall attempt to resolve the matter, calling upon the assistance of the equity officer where appropriate. The EEEO officer will keep a
record of such advisory and conciliatory activities and periodically brief the equity
officer.
6. Advising and otherwise aiding complainants in making formal com- plaints
under this code. When a complaint is filed with an EEO officer, the complaint
shall be forwarded by that officer within five (5) working days to the equity
officer and the Office of Human Relations Programs. The EEO officer shall be
available to assist in a preliminary investigation of the complaint conducted under
the general supervision of the Office of Human Relations Programs, to deter-
mine whether there is probable cause to believe that prohibited discrimination
has occurred.
7. Making recommendations to the Office of Human Relations Programs to help
facilitate human relations programs on campus.
8. Assisting units in publicizing the functions of EEO officers.
9. Collecting pertinent information regarding hiring, upgrading and promotion
opportunities within units and disseminating such information to appropriate
personnel.

D. The EEO officer shall have the full support of the unit administration, the college
administration, and the Office of Human Relations Programs. The EEO officer shall be
afforded reasonable time from regular duties to perform the functions of the office. These
functions shall qualify as part of a workday in the case of a staff member and as partial
fulfillment of required committee loads in the case of faculty. The EEO officer shall be free
from interference, coercion, harassment, discrimination, or unreasonable restraints in
connection with the performance of the duties specified in this code.

**Article VI Effective Date**

This Code shall be effective as revised as of April 6, 1998.

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Appendix B: University of Maryland Policy and Procedures on Sexual Harassment

Approved by the President
August 1, 1991;
Revised December 13, 2004

A. Policy

UM is committed to maintaining a working and learning environment in which students, faculty, and staff can develop intellectually, professionally, personally, and socially. Such an environment must be free of intimidation, fear, coercion, and reprisal. Accordingly, the Campus prohibits sexual harassment. Sexual harassment may cause others unjustifiable offense, anxiety, and injury. Sexual harassment threatens the legitimate expectation of all members of the Campus community that academic or employment progress is determined by the publicly stated requirements of job and classroom performance, and that the Campus environment will not unreasonably impede work or study.

Sexual harassment by University faculty, staff, and students is prohibited. This constitutes Campus policy. Sexual harassment may also constitute violations of criminal and civil laws of the State of Maryland and the United States. For the purpose of this Campus policy, sexual harassment is defined as: (1) unwelcome sexual advances; or (2) unwelcome requests for sexual favors; or (3) other behavior of a sexual or gender-based nature where:

a. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or participation in a University sponsored educational program or activity; or
b. Submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual; or
c. Such conduct has the purpose or effect of unreasonably interfering with an individual's academic or work performance, or of creating an intimidating, hostile, or offensive educational or working environment.

In assessing whether a particular act constitutes sexual harassment forbidden under this policy, the standard shall be the perspective of a reasonable person within the College Park Campus community. The rules of common sense and reason shall prevail. Nothing in this policy limits expression protected under the First Amendment, campus freedom of expression, or similar policies. Allegations of sexual harassment shall be judged with attention to the facts particular to the case and the context in which the alleged incident(s) occurred.

Conduct prohibited under this policy may manifest itself in many different ways. Sexual harassment may, for example, be as undisguised as a direct solicitation of sexual favors, or solicitation accompanied by overt threats. Harassment may also arise from behavior that has the effect of creating an intimidating, hostile, or offensive educational or working environment. In this regard, the following types of acts, if pervasive and continuous, are most likely to result in allegations of sexual harassment: unwelcome physical contact; sexual remarks about a person's clothing, body, or sexual relations; conversation of a sexual nature or similar jokes and stories; and the display of sexually explicit materials in the workplace or used, without defensible educational purpose, in the classroom.

Sexual harassment may occur within a variety of relationships. It may occur among peers. It may occur where no relationship exists between the parties other than being co-employees or co-students. Especially injurious is harassment in relationships characterized by inequality of power, where one party has institutional authority over the other. Inherent in these relationships is the power and fear of reprisal. Typically, such relationships are found between employer and employee; senior faculty and junior faculty; graduate teaching assistant and
Student Grievance Procedure
Appendix J: Procedures for Review of Alleged Arbitrary and Capricious Grading

Appendix K: Policy on Participation by Students in Class Exercises That Involve Animals
Appendix L: Completion of Interrupted Degree
Appendix M: Required Disclosure of University Procedure on the Collection, Use and Protection of Student Social Security Numbers (SSN)
Appendix N: Transfer Credit Policy Maryland Higher Education Commission (Title 13 B)
Appendix O: Code of Academic Integrity

undergraduate; and faculty and student, when the student is enrolled in a faculty member's class or when the student is in a continuing position to require evaluation of work or letters of recommendation from the faculty. Such relationships can be immediate or based upon future expectations, for example, the need for future evaluations and references. Sexual harassment may occur between persons of the same or different sex.

Education and awareness are the best tools for the elimination of sexual harassment. The Campus is committed to taking appropriate action against those who violate the provisions of the policy. The Campus is committed to protecting targets of harassment from retaliation.

B. PROCEDURES

1. General Principles.
Preventing sexual harassment is a responsibility of the entire Campus community. The Campus has made this a priority, but ultimately, no satisfactory investigation or resolution of a complaint can occur without the initiative and continuous cooperation of the person who feels injured.

Similarly, allegations of sexual harassment are extremely serious, with potential for great harm to all persons if ill-conceived or without foundation. Procedures which implement Campus policy recognize the potential for harm. The Campus is committed to protecting the rights of the alleged offender as well as the offended. VI-1.20(A) page 3

2. Confidentiality.
All complaints of sexual harassment are to be kept confidential. This means that the complaint will be discussed only with those who have a legitimate administrative or legal reason to know about the complaint. Information related to a complaint also may be subject to disclosure as required by state or federal law.

3. Filing a Complaint.
An individual who believes he or she has been subjected to sexual harassment has several ways to bring this to the attention of the University, and, where proper, obtain redress or protection. There is an Informal Complaint Procedure (see Section 5). There are also Formal Complaint Procedures (see Section 6) sufficiently broad to deal with sexual harassment. These procedures are explained later in this Policy.

Faculty, staff and students may report an alleged incident of sexual harassment to:

a. the Campus Compliance Officer, Office of Human Relations Programs (405-2839);
   b. a Departmental or College equity officer;
   c. any Campus or University official or faculty member, including the reporting individual's supervisor, the department chair or dean;
   d. the Director of University Human Resources (405-5648);
   e. the President's Legal Office (405-4945);
   f. In addition to the options listed above, students also may report an incident of sexual harassment to the Office of Student Conduct (314-8204).

4. Responsibilities of the Person Receiving the Complaint.
Any person who receives a complaint of sexual harassment shall not initiate any action to investigate or resolve the matter until he or she:

a. explains that as a person receiving a report of sexual harassment, he/she must notify the Campus Compliance Officer or the Legal Office about the complaint. The Campus Compliance Officer and Legal Office will have a collaborative and information-sharing relationship regarding reports of sexual harassment. The purpose VI-1.20(A) page 4 of contacting one of these offices is:
   i. to ensure that the receiving person communicates the necessary information to the complainant, (including giving the complainant copy of the Sexual Harassment Policy)
   ii. to determine what questions the complainant has about the Sexual Harassment Policy and procedures
   iii. to advise who would most likely be the appropriate University Official to handle an Informal Complaint.
b. speaks again to the complainant, after consulting with the Campus Compliance Officer and/or Legal Office. After the complainant has had the opportunity to raise any questions about the Sexual Harassment Policy and the Informal Complaint Process, the complainant will be offered the opportunity to decide which process to initiate.

5. Informal Complaints.
The Informal Complaint Procedure is intended to be a flexible process so that each case may be handled according to the specific facts presented. The Informal Complaint Procedure has no specific steps, time limits or other prescribed requirements.

a. Depending on the specific facts, an Informal Complaint may be reviewed or investigated by a supervisor or similar University official who has administrative authority over the person accused of harassment, or by the Campus Compliance Officer or Campus Legal Office staff. The Campus Compliance Officer and/or Legal Office will determine who is the most appropriate person to handle an Informal Complaint.

b. While a written complaint is not required to initiate an Informal Complaint, the complainant will generally be asked to submit a signed complaint. If the matter is to be investigated, consideration shall be given to the situation and the wishes of the complainant.

c. The results of the investigation shall be confidentially reported, according to the procedures of the Office of Legal Affairs’ and/or the Office of Human Relations Programs’ procedures, to the complainant, the alleged VI-1.20(A) page 5 offender, the Legal Office, and as required, to the President, the relevant vice president, dean, chairman, or supervisor. Sanctions for sexual harassment may range from reprimand to termination, depending upon the circumstances of the case.

d. Files will normally be kept for the period of time designated in the record retention policy of the office handling the complaint. Complainants and alleged may ask where and how long a file will be kept.

e. The person accused of sexual harassment shall be:

i. told that a complaint has been made;

ii. informed of the specific facts of the complaint;

iii. told that the complainant has chosen to pursue the complaint under the Informal Complaint Procedures;

iv. given an opportunity to have his/her questions about the Informal Process answered before any review or investigation proceeds;

v. given a copy of the Sexual Harassment Policy; and

vi. advised of his/her rights to contest any disciplinary action taken against him/her as a result of the Informal Complaint Procedure.

6. Formal Complaints
Formal procedures for resolving sexual harassment complaints are available based on the classification of the complaining person.

a. Faculty, all categories of staff, and students can file a complaint under the University Human Relations Code with a Campus unit equity administrator or the Campus Compliance Officer, Office of Human Relations Programs, 1130 Shriver Laboratory (405-2839). The Human Relations Code is on-line at www.inform.umd.edu/PRES/policies/vi100b.html

b. Faculty members can file a complaint under the Faculty Grievance VI-1.20(A) page 6 Procedure with the Faculty Ombuds Officer, 2132 Main Administration Building (405-1901). The Faculty Grievance Procedure is on-line at www.inform.umd.edu/PRES/policies/ii400a.html

c. Exempt employees can file a complaint under the USM Policy on Grievances for Exempt and Non-Exempt Staff Employees with the Office of Staff Relations, Department of University Human Resources, 1100 Chesapeake Building (405-5651). This grievance policy is on-line at www.usmh.usmd.edu/Leadership/BoardOfRegents/Bylaws/SectionVII/VII800.html

d. Non-Exempt employees can file a complaint under the USM Policy on Grievances for Exempt and Nonexempt Staff Employees with the Office of Staff Relations, Department of University Human Resources, 1100 Chesapeake
Building (405-5651). This grievance policy is on-line at
www.usmh.usmd.edu/Leadership/BoardOfRegents/Bylaws/
SectionVII/VII800.html

e. A student can file a complaint against another student under the Code of
Student Conduct with the Office of Student Conduct, 2108 Mitchell Building (314-
8204). The Code of Student Conduct is online at
www.inform.umd.edu/PRES/policies/v100b.html

The procedures listed above are long-standing, structured procedures established by law and/or
University System of Maryland policy. Unlike the Informal Complaint Process, each procedure
sets out specific steps, time limits, and other formal requirements. Time limits may be extended
to take into account behavior considered continuing in nature. The location of a file on a
complaint of sexual harassment and how long a file may be retained are determined by the
particular procedure used. A complainant or person accused of harassment can find specific
information about each of the Formal Complaint procedures by calling the relevant office listed
above. Following is a Statement on Sexual Relationships and Professional Conduct. While sexual
relationships in the supervisory context are not prohibited in the sense that penalties are
attached to such conduct, all members of the Campus community are urged to consider the
ethical concerns that arise as a result of such relationships, and to take prompt and reasonable
steps to prevent such issues.

STATEMENT ON SEXUAL RELATIONSHIPS AND PROFESSIONAL CONDUCT
The basic function of a university is the discovery and transmission of knowledge, activities
which are founded upon the free and open exchange of ideas. In order for productive learning
and the work that supports it to occur, members of the Campus community--faculty, students,
and staff personnel--should pursue their responsibilities guided by a strong commitment to
principles of mutual trust and confidence and professional codes of conduct. It should be
understood by all members of the Campus community that sexual relationships that occur in
the context of educational or employment supervision and evaluation are generally deemed
very unwise because they present serious ethical concerns. Many professional codes of conduct
prohibit sexual relationships that occur within the context of one's profession. Accordingly,
faculty and supervisors are warned about the possible costs of even an apparently consensual
relationship. The element of power implicit in sexual relationships occurring in the supervisory
context can diminish a subordinate's actual freedom of choice. There is doubt whether any such
relationship can be truly consensual. In addition, sexual relationships between a professor or
supervisor and subordinate create an environment charged with potential conflict of interest.
Questions of favoritism frequently arise. As a result, such conduct may subvert the normal
structure of incentives that spurs works and learning advancement and interjects attitudes and
pressures that are not consonant with the education and employment policies and principles to
which the Campus is committed.

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Appendix C: Code of Student Conduct

This appendix contains the Code of Student Conduct for undergraduate and graduate students at the University of Maryland. It is expected that students will conduct themselves with the highest levels of integrity and good character. A few highlights:

1. Cases that may result in suspension or expulsion are heard by judicial boards, composed entirely of students. Less serious cases are resolved in disciplinary conferences conducted by members of the student judiciary, or by University staff members.

2. Students living in the residence halls are also subject to Resident Life regulations. Allegations that a student violated those regulations, as well as the Code of Student Conduct, are normally resolved together in one hearing or conference. Recommendations from the hearing panel are then acted upon separately by the Office of Student Conduct (responsible for university discipline) and the Resident Life, Office of Rights and Responsibilities (responsible for residence hall regulations).

3. Acts of violence (including any sexual assault), intimidation, or disruption; substantial theft or vandalism; academic dishonesty; fraud or forgery; use or distribution of illegal drugs; and any Code of Student Conduct violation motivated by considerations of sex, race, ethnic origin, or religion are forms of misconduct that most frequently result in dismissal from the University.

4. Effective April 2006, students who engage in riotous or other serious misconduct on- or off-campus when related to a University sponsored event (i.e., athletic event) will face dismissal.

5. Students are accorded substantial procedural protections, including an opportunity for a hearing and an appeal in any case that might result in suspension or expulsion from the University.

6. Informal hearings and other proceedings at educational institutions do not follow the same procedures used in courtrooms. The University does not use attorneys to "prosecute" students, or apply the rules of evidence used in a civil or criminal trial. Instead, charges are investigated and resolved in an atmosphere of candor, truthfulness, and civility. Also, in addition to a just punishment, a primary objective of the disciplinary process is to promote the moral development of those found responsible for violating disciplinary regulations.

7. Students accused of violating University disciplinary regulations are encouraged to discuss the allegations with their parents or guardians, legal counsel, and with appropriate University staff members. For example, international students are encouraged to review the charges against them with an advisor in the International Education Services Office.

8. Additional information about the disciplinary process is available upon request. For example, students subject to a disciplinary hearing should request a copy of the document "Preparing for a Hearing". Comparable information is also available to those who wish to file disciplinary charges.

9. Disciplinary files are normally kept for three years. A procedure is available to allow students to petition to void a disciplinary record earlier. Transcript notations of disciplinary suspension or expulsion are permanent.
10. Academic Integrity policies are administered by the Student Honor Council, in accordance with the Code of Academic Integrity.

11. Compared to disciplinary systems at most universities, Maryland students are given unusual authority and responsibility for management of the campus disciplinary process. Membership on the student judiciary is an extraordinary educational experience, an opportunity to be of service to the community, and a personal honor.

12. The tenets of our office are set forth below. Call me at 301-314-8204 if at any time you believe you have not been treated in accordance with them.

To regard each student as an individual, deserving individual attention, consideration, and respect.

* To consider the facts fully and carefully before resolving any case.
* To speak candidly and honestly with each student.
* To hold each student to a high standard of behavior, both to protect the campus community, and to promote student ethical development.
* To recognize the reality of human fallibility, as well as the stresses associated with collegiate life, and to demonstrate compassion, understanding, and a sense of humor.
* To contribute to the educational mission of the University by designing policies, conducting programs, and offering instruction that contribute to the intellectual and ethical development of the entire student body.

John Zacker
Director of Student Conduct

Approved by the Board of Regents
January 25, 1980
(Last amended April 5, 2006).

Note: Different procedures and penalties are applicable in cases involving allegations of academic dishonesty. Please refer to the Code of Academic Integrity, available from the Office of Student Conduct (301-314-8204).

Footnotes which appear throughout the Code of Student Conduct refer to the Annotations listed at the end of this appendix.

Rationale

1. The primary purpose for the imposition of discipline in the University setting is to protect the campus community. Consistent with that purpose, reasonable efforts will also be made to foster the personal and social development of those students who are held accountable for violations of University regulations.¹

Definitions

2. When used in this Code:²

(a) the term "aggravated violation" means a violation which resulted or foreseeably could have resulted in significant damage to persons or property or which otherwise posed a substantial threat to the stability and continuance of normal University or University-sponsored activities.
(b) the term "distribution" means sale or exchange for personal profit.
(c) the term "group" means a number of persons who are associated with each other and who have not complied with University requirements for registration as an organization.
(d) the terms "institution" and "University" mean the University of Maryland, College Park.
(e) the term "organization" means a number of persons who have
complied with University requirements for registration.

(f) the term "reckless conduct" means action which any member of the University community can be expected to know would create a clear risk of harm to persons or property, or would disrupt the lawful activities of others, including studying, teaching, research, and University administration.3

(g) the term "student" means a person taking or auditing courses at the institution either on a full- or part-time basis.4

(h) the term "University premises" means buildings or grounds owned, leased, operated, controlled or supervised by the University.

(i) the term "weapon" means any object or substance designed to inflict a wound, cause injury, or incapacitate, including, but not limited to, all firearms, pellet guns, switchblade knives, knives with blades five or more inches in length.

(j) the term "University-sponsored activity" means any activity on or off campus which is initiated, aided, authorized or supervised by the University.

(k) the terms "will" or "shall" are used in the imperative sense.

Interpretation of Regulations

3. Disciplinary regulations at the University are set forth in writing in order to give students general notice of prohibited conduct. The regulations should be read broadly and are not designed to define misconduct in exhaustive terms.

Inherent Authority

4. The University reserves the right to take necessary and appropriate action to protect the safety and well-being of the campus community.5

Student Participation

5. Students are asked to assume positions of responsibility in the University judicial system in order that they might contribute their skills and insights to the resolution of disciplinary cases. Final authority in disciplinary matters, however, is vested in the University administration and in the Board of Regents.

Standards of Due Process

6. Students subject to expulsion, suspension or disciplinary removal from University housing will be accorded a conduct board hearing as specified in Part 30 of this Code. Students subject to less severe sanctions will be entitled to an informal disciplinary conference, as set forth in Parts 32 and 33.

7. The focus of inquiry in disciplinary proceedings shall be the guilt or innocence of those accused of violating disciplinary regulations. Formal rules of evidence shall not be applicable, nor shall deviations from prescribed procedures necessarily invalidate a decision or proceeding, unless significant prejudice to a student respondent or the University may result.9

Violations of Law and Disciplinary Regulations

8. Students may be accountable to both civil authorities and to the University for acts which constitute violations of law and of this Code.10 Disciplinary action at the University will normally proceed during the pendency of criminal proceedings and will not be subject to challenge on the ground that criminal charges involving the same incident have been dismissed or reduced.

Prohibited Conduct
9. The following misconduct is subject to disciplinary action:

(a) intentionally or recklessly causing physical harm to any person on University premises or at University-sponsored activities, or intentionally or recklessly causing reasonable apprehension of such harm.
(b) unauthorized use, possession or storage of any weapon on University premises or at University-sponsored activities.
(c) intentionally initiating or causing to be initiated any false report, warning or threat of fire, explosion or other emergency on University premises or at University-sponsored activities.
(d) off-campus misconduct which:
   i. is a criminal offense off campus, resulting in conviction, if such an offense would constitute a violation of this Code had it occurred on University premises. No student convicted of a misdemeanor under this section shall be subject to expulsion or full suspension unless the offense constitutes an "aggravated violation" as defined in Part 2(a) of this Code. The University shall not pursue disciplinary action when a non-aggravated misdemeanor does not pose a threat to the stability of the campus or campus community; provided, however,
   ii. rioting, assault, theft, vandalism, fire setting, or other serious misconduct related to a University-sponsored event, occurring on or off campus, that results in harm to persons or property or otherwise poses a threat to the stability of the campus or campus community may result in disciplinary action regardless of the existence, status, or outcome of any criminal charges in a court of law related to misconduct associated with a University-sponsored event.
   (e) knowingly violating the terms of any disciplinary sanction imposed in accordance with this Code.
   (f) intentionally or recklessly misusing or damaging fire safety equipment.
   (g) unauthorized distribution or possession for purposes of distribution of any controlled substance or illegal drug on University premises or at University-sponsored activities.
   (h) intentionally furnishing false information to the University.
   (i) making, possessing, or using any forged, altered, or falsified instrument of identification on University premises, or at University-sponsored activities; making, possessing, or using any forged, altered, or falsified University document, on or off campus.
   (j) intentionally and substantially interfering with the freedom of expression of others on University premises or at University sponsored activities.
   (k) theft of property or of services on University premises or at University-sponsored activities; knowing possession of stolen property on University premises or at University-sponsored activities.
   (l) intentionally or recklessly destroying or damaging the property of others on University premises or at University-sponsored activities.
   (m) engaging in disorderly or disruptive conduct on University premises or at University-sponsored activities which interferes with the activities of others, including studying, teaching, research, and University administration.
   (n) failure to comply with the directions of University officials, including campus police officers, acting in performance of their duties.
   (o) violation of published University regulations or policies, as approved and compiled by the Vice President for Student Affairs. Such regulations or policies may include the residence hall contract, as well as those regulations relating to entry and use of University facilities, sale or consumption of alcoholic beverages, use of vehicles and amplifying equipment, campus demonstrations, and misuse of identification cards.
   (p) use or possession of any controlled substance or illegal drug on University premises or at University-sponsored activities.
(q) unauthorized use or possession of fireworks on University premises.

* The response of fire, police, or emergency personnel to a non-frivolous call, or action taken by them on their own initiative pursuant or non-pursuant to policy is not considered a disruption or reckless action within the meaning of this section.

** Parking and traffic violations may be processed in accordance with procedures established by the Vice President for Student Affairs.

*** This charge is considered an aggravated violation as defined by Part 2 (a) and may result in suspension or expulsion from the University.

Sanctions

10. Sanctions for violations of disciplinary regulations consist of:

(a) EXPULSION: permanent separation of the student from the University. Notification will appear on the student’s transcript. The student will also be barred from the University premises (expulsion requires administrative review and approval by the President and may be altered, deferred or withheld).
(b) SUSPENSION: separation of the student from the University for a specified period of time. Permanent notification will appear on the student’s transcript. The student shall not participate in any University-sponsored activity and may be barred from University premises. Suspended time will not count against any time limits of the Graduate School for completion of a degree. (Suspension requires administrative review and approval by the Vice President for Student Affairs and may be altered, deferred or withheld).
(c) DISCIPLINARY PROBATION: the student shall not represent the University in any extracurricular activity or run for or hold office in any student group or organization. Additional restrictions or conditions may also be imposed. Notification will be sent to appropriate University offices, including the Office of Campus Programs.
(d) DISCIPLINARY REPRIMAND: the student is warned that further misconduct may result in more severe disciplinary action.
(e) RESTITUTION: the student is required to make payment to the University or to other persons, groups, or organizations for damages incurred as a result of a violation of this Code.
(f) OTHER SANCTIONS: other sanctions may be imposed instead of or in addition to those specified in sections (a) through (e) of this part. For example, students may be subject to dismissal from University housing for disciplinary violations which occur in the residence halls. Likewise, students may be subject to restrictions upon or denial of driving privileges for disciplinary violations involving the use or registration of motor vehicles. Work or research projects may also be assigned.

11. Violations of sections (a) through (g) in Part 9 of this Code may result in expulsion from the University, unless specific and significant mitigating factors are present. Factors to be considered in mitigation shall be the present demeanor and past disciplinary record of the offender, as well as the nature of the offense and the severity of any damage, injury, or harm resulting from it.

12. Violations of sections (h) through (k) in Part 9 of this Code may result in suspension from the University, unless specific and significant mitigating factors as specified in Part 11 are present.

13. Repeated or aggravated violations of any section of this Code may also result in expulsion or suspension or in the imposition of such lesser penalties as may be appropriate.

14. Any decision to impose a sanction less than suspension or expulsion for University-sponsored event-related misconduct as defined in Part 9(d)(ii) of this Code must be supported by written findings signed by the Vice President for Student Affairs. A student suspended under this section shall not be admitted to...
any other institution in the University of Maryland System during the term of the suspension. A student expelled under this section shall not be admitted to any other institution in the System for at least once year from the effective date of the expulsion.

15. Attempts to commit acts prohibited by this Code shall be punished to the same extent as completed violations.16

16. Penalties for off-campus misconduct shall not be more severe than for similar on-campus conduct.

**Interim Suspension**<sup>(17)</sup>

17. The Vice President for Student Affairs or a designee may suspend a student for an interim period pending disciplinary proceedings or medical evaluation, such interim suspension to become immediately effective without prior notice, whenever there is evidence that the continued presence of the student on the University campus poses a substantial threat to him or herself or to others or to the stability and continuance of normal University functions.

18. A student suspended on an interim basis shall be given an opportunity to appear personally before the Vice President for Student Affairs or a designee within five business days from the effective date of the interim suspension in order to discuss the following issues only:

(a) the reliability of the information concerning the student's conduct, including the matter of his or her identity;
(b) whether the conduct and surrounding circumstances reasonably indicate that the continued presence of the student on the University campus poses a substantial threat to him or herself or to others or to the stability and continuance of normal University functions.

**Office of Student Conduct**

19. The Office of Student Conduct directs the efforts of students and staff members in matters involving student discipline. The responsibilities of the office include:

(a) determination of the disciplinary charges to be filed pursuant to this *Code*.
(b) interviewing and advising parties<sup>18</sup> involved in disciplinary proceedings.
(c) supervising, training, and advising all conduct boards.
(d) reviewing the decisions of all conduct boards.<sup>19</sup>
(e) maintenance of all student disciplinary records.
(f) development of procedures for conflict resolution.
(g) resolution of cases of student misconduct, as specified in Parts 32 and 33 of this *Code*. (h) collection and dissemination of research and analysis concerning student conduct.
(i) submission of a statistical report each semester to the campus community, reporting the number of cases referred to the office, the number of cases resulting in disciplinary action, and the range of sanctions imposed.<sup>20</sup>

**Conduct Panels**

20. Hearings or other proceedings as provided in the *Code* may be held before the following boards or committees:

(a) CONFERENCE BOARDS, as appointed in accordance with Part 33 of this *Code*.
(b) RESIDENCE BOARDS, as established and approved by the Vice
President for Student Affairs. Students residing in group living units owned, leased, operated or supervised by the University may petition the Vice President for authority to establish conduct boards. Such boards may be empowered to hear cases involving violations of the Code, as prescribed by the Vice President for Student Affairs.

(c) THE CENTRAL BOARD hears cases involving disciplinary violations which are not referred to Residence Boards or resolved in accordance with Parts 32 and 33 of this Code. The Central Board is composed of five students, including at least two graduate students when a graduate student case is being heard.

(d) THE APPELLATE BOARD hears appeals from Residence Boards, the Central Board, and ad hoc boards, in accordance with Part 42 of this Code. The Appellate Board is composed of five full time students, including at least two graduate students.

(e) AD HOC BOARDS may be appointed by the Director of Student Conduct when a Conference Board, a Residence Board, the Central Board, the Appellate Board or the Senate Adjunct Committee are unable to obtain a quorum or are otherwise unable to hear a case. Each ad hoc board shall be composed of three members, including at least one student.

(f) THE SENATE COMMITTEE ON STUDENT CONDUCT hears appeals as specified in Part 41 of this Code. The committee also approves the initial selection of all conduct board members, except members of conference and ad hoc boards.

21. The presiding officer of each conduct board and of the Senate Committee on Student Conduct may develop bylaws which are not inconsistent with any provision in this Code. Bylaws must be approved by the Director of Student Conduct.

Selection and Removal of Board Members

22. Members of the various conduct boards are selected in accordance with procedures developed by the Director of Student Conduct.

23. Members of conference and ad hoc boards are selected in accordance with Parts 33 and 20 (e), respectively.

24. Prospective members of the Central Board and the Appellate Board are subject to confirmation by the Senate Committee on Student Conduct.

25. Members of the Senate Committee on Student Conduct are selected in accordance with the bylaws of the University Senate.

26. Prior to participating in board or committee deliberations, new members of the Senate Committee on Student Conduct and all conduct boards, except conference and ad hoc boards, will participate in one orientation session by the Office of Student Conduct.

27. Student members of any conduct board or committee who are charged with any violation of this Code or with a criminal offense may be suspended from their judicial positions by the Director of Student Conduct during the pendency of the charges against them. Students convicted for any such violation or offense may be disqualified from any further participation in the University judicial system by the Director of Student Conduct. Additional grounds and procedures for removal may also be set forth in the bylaws of the various conduct panels.

Case Referrals

28. Any person may refer a student or a student group or organization suspected of violating this Code to the Office of Student Conduct. Allegations of off-campus event-related misconduct must be supported by a report, statement, or accusation from a law enforcement agency in whose jurisdiction the misconduct is alleged to have occurred. Persons making such referrals are
required to provide information pertinent to the case and will normally be expected to appear before a conduct board as the complainant. 27

Deferral of Proceedings

29. The Director of Student Conduct may defer disciplinary proceedings for alleged violations of this Code for a period not to exceed 90 days. Pending charges may be withdrawn thereafter, dependent upon the good behavior of the respondent. Hearing Referrals

30. Staff members in the Office of Student Conduct will review referrals to determine whether the alleged misconduct might result in expulsion, suspension, or disciplinary removal from University housing.28 Students subject to those sanctions shall be accorded a hearing before the appropriate conduct board. All other cases shall be resolved in the Office of Student Conduct after an informal disciplinary conference, as set forth in Part 32 and 33 of this Code.

31. Students referred to a conduct board hearing may elect instead to have their case resolved in accordance with Parts 32 and 33. The full range of sanctions authorized by this Code may be imposed, although the right of appeal shall not be applicable.

Disciplinary Conferences(29)

32. Students subject to or electing to participate in a disciplinary conference in the Office of Student Conduct are accorded the following procedural protections:

(a) written notice of charges at least three days prior to the scheduled conference.
(b) reasonable access to the case file30 prior to and during the conference.
(c) an opportunity to respond to the evidence against them and to call appropriate witnesses on their behalf.
(d) the option to be accompanied and assisted by a representative, who may be an attorney. Representatives have the right to make opening and closing statements, to advise their clients during the course of the proceedings, and to petition for recesses. All representatives are subject to the restrictions of Parts 35 and 36 of this Code.

33. Disciplinary conferences shall be conducted by the Director of Student Conduct or a designee.31 Complex or contested cases may be referred by the Director to a conference board, consisting of one member of the Central Board, one member of the Appellate Board, and a staff member in the Division of Student Affairs. Conference Board members shall be selected on a rotating basis by the Director of Student Conduct.

Hearing Procedures

34. The following procedural guidelines shall be applicable in disciplinary hearings:

(a) respondents shall be given notice of the hearing date and the specific charges against them at least five days in advance and shall be accorded reasonable access to the case file, which will be retained in the Office of Student Conduct.
(b) the presiding officer of any board may subpoena witnesses upon the motion of any board member or of either party and shall subpoena witnesses upon request of the board advisor. Subpoenas must be approved by the Director of Student Conduct and shall be personally delivered or sent by certified mail, return receipt requested. University students and employees are expected to comply with subpoenas issued pursuant to this procedure, unless compliance would result in significant and unavoidable personal
hardship or substantial interference with normal University activities. if the Director of Student Conduct or his or her designee determines that a fair hearing cannot be held without the testimony of a particular witness, and, after good faith attempts are made, the witness either fails to or refuses to appear, the disciplinary hearing will be postponed until the witness agrees to appear or the charges will be dismissed.

(c) respondents who fail to appear after proper notice will be deemed to have pleaded guilty to the charges pending against them.

(d) hearings will be closed to the public, except for the immediate members of the respondent's family and for the respondent's representative. An open hearing may be held, at the discretion of the presiding officer, if requested by the respondent.

(e) the presiding officer of each board shall exercise control over the proceedings to avoid needless consumption of time and to achieve the orderly completion of the hearing. Except as provided in section (o) of this Part, any person, including the respondent, who disrupts a hearing may be excluded by the presiding officer or by the board advisor.

(f) hearings may be tape recorded or transcribed. If a recording or transcription is not made, the decision of the board must include a summary of the testimony and shall be sufficiently detailed to permit review by appellate bodies and by staff members in the Office of Student Conduct.

(g) any party or the board advisor may challenge a board member on the grounds of personal bias. Board members may be disqualified upon majority vote of the remaining members of the board, conducted by secret ballot, or by the Director of Student Conduct.

(h) witnesses shall be asked to affirm that their testimony is truthful and may be subject to charges of perjury, pursuant to Part 9 (h) of this Code.

(i) prospective witnesses, other than the complainant and the respondent, may be excluded from the hearing during the testimony of other witnesses. All parties, the witnesses, and the public shall be excluded during board deliberations.

(j) the burden of proof shall be upon the complainant, who must establish the guilt of the respondent by clear and convincing evidence.

(k) formal rules of evidence shall not be applicable in disciplinary proceedings conducted pursuant to this Code. The presiding officer of each board shall give effect to the rules of confidentiality and privilege, but shall otherwise admit all matters into evidence which reasonable persons would accept as having probative value in the conduct of their affairs. Unduly repetitious or irrelevant evidence may be excluded.

(l) respondents shall be accorded an opportunity to question those witnesses who testify for the complainant at the hearing.

(m) affidavits shall not be admitted into evidence unless signed by the affiant and witnessed by a University employee, or by a person designated by the Director of Student Conduct.

(n) board members may take judicial notice of matters which would be within the general experience of University students.

(o) board advisors may comment on questions of procedure and admissibility of evidence and will otherwise assist in the conduct of the hearing. Advisors will be accorded all the privileges of board members, and the additional responsibilities set forth in this Code, but shall not vote. All advisors are responsible to the Director of Student Conduct and shall not be excluded from hearings or board deliberations by any board or by the presiding officer of any board.

(p) the Director of Student Conduct may appoint a special presiding officer to any board in complex cases or in any case in which the respondent is represented by an attorney. Special presiding officers may participate in board deliberations, but shall not vote. A determination of guilt shall be followed by a supplemental
Attorneys and Representatives

35. Representatives of both complainants and respondents in hearings pursuant to this Code have the right to call witnesses to testify, to question in person all witnesses who appear at the hearing, to voice timely objections, to make opening and closing statements, to petition for recesses in the proceedings and to zealously and lawfully assert their client's position under the Declaration of Student Rights and the Code of Student Conduct. All presenters and representatives who participate in disciplinary hearings and disciplinary conferences shall not:

(a) intentionally engage in conduct to disrupt a hearing;
(b) intentionally attempt to improperly influence an officer of the Office of Student Conduct, a hearing advisor or member of a conduct board;
(c) intentionally fail to obey a reasonably definite and specific order by a presiding officer;
(d) knowingly make a false statement of material fact, law or representation of the Code to other participants in a hearing;
(e) knowingly fail to disclose a material fact in a hearing when disclosure is necessary to avoid assisting a future criminal or fraudulent act;
(f) knowingly offer false evidence, falsify evidence, counsel or induce witnesses to testify falsely, or offer improper inducements to testify;
(g) recklessly and unlawfully obstruct another party's access to evidence, or alter, destroy or conceal material not protected by privilege having potential evidentiary value;
(h) if the representative is an attorney, otherwise fail to follow any obligations under relevant standards of professional responsibility in matters pertaining to the representation.

36. (a) Any participant in a hearing may refer complaints about suspected violations of the provisions of Part 35 of this Code to the Senate Committee on Student Conduct.

(b) Within a reasonable time after such referral, the chairperson of the Senate Committee on Student Conduct will review the complaint. After review the chairperson shall dismiss complaints which are anonymous, manifestly frivolous, which cannot be reasonably construed to allege a violation of Part 35, or are based on hearsay alone. Those which are not dismissed will be referred to the full Committee which will convene a hearing no sooner that 10 business days after sending a copy of the evidence presented to the representative named in the complaint. The hearing shall be held under the relevant rules and procedures governing disciplinary hearings outlined in Parts 34-36 of this Code.

(c) A client shall not be compelled either directly or through their representative to waive the attorney-client privilege.

(d) Representatives found responsible for violations of the
provisions of Part 35 may be suspended from the privilege of
representation for such time as the Committee may deem
appropriate. In addition, the Committee may refer their findings to
the Attorney Grievance Commission, or other appropriate
disciplinary body.

(e) Appeals from decisions of the Senate Committee on Student
Conduct regarding violations under Part 35 may be made by
parties found responsible. Appeals should be made in writing to
the Senate Campus Affairs Committee within 10 business days of
receipt of the letter notifying the party of the decision. Appeals will
be conducted in accordance with the standards for the hearing of
student disciplinary appeals. Decisions of the Campus Affairs
Committee regarding these appeals shall be final.

Student Groups and Organizations

37. Student groups and organizations may be charged with violations of this
Code.

38. A student group or organization and its officers may be held collectively or
individually responsible when violations of this Code by those associated with the
group or organization have received the tacit or overt consent or encouragement of the group or organization or of the group's or organization's leaders, officers, or spokespersons.

39. The officers or leaders or any identifiable spokespersons for a student
group or organization may be directed by the Vice President for Student Affairs
or a designee to take appropriate action designed to prevent or end violations of this Code by the group or organization or by any persons associated with the group or organization who can reasonably be said to be acting in the group's or organization's behalf. Failure to make reasonable efforts to comply with the Vice President's directive shall be considered a violation of Part 9(n) of this Code, both by the officers, leaders or spokespersons for the group or organization and by the group or organization itself.

40. Sanctions for group or organization misconduct may include revocation or
denial of recognition or registration, as well as other appropriate sanctions, pursuant to Part 10(f) of this Code.

Appeals

41. Any determination made pursuant to this Code resulting in expulsion or
suspension may be appealed by the respondent to the Senate Committee on
Student Conduct. The Senate Committee shall also hear appeals from denials of
petitions to void disciplinary records, pursuant to Part 51 of this Code.

42. Final decisions of residence boards, the Central Board and ad hoc boards, not
involving the sanctions specified in Part 41, may be appealed by the respondent
to the Appellate Board.

43. Requests for appeals must be submitted in writing to the Office of Student
Conduct within seven business days from the date of the letter notifying the
respondent of the original decision. Failure to appeal within the allotted time will render the original decision final and conclusive.

44. A written brief in support of the appeal must be submitted to the Office of
Student Conduct within 10 business days from the date of the letter notifying the
respondent of the original decision. Failure to submit a written brief within the
allotted time will render the decision of the lower board final and conclusive.

45. Appeals shall be decided upon the record of the original proceeding and upon
written briefs submitted by the parties. De novo hearings shall not be conducted.
46. Appellate bodies may:

(a) affirm the finding and the sanction imposed by the original board.
(b) affirm the finding and reduce, but not eliminate, the sanction, in accordance with Parts 47 and 47(a).
(c) remand the case to the original board, in accordance with Parts 47 and 47(b).
(d) dismiss the case, in accordance with Parts 47 and 47(c).

47. Deference shall be given to the determinations of lower boards.

(a) sanctions may only be reduced if found to be grossly disproportionate to the offense.
(b) cases may be remanded to the original board if specified procedural errors or errors in interpretation of University regulations were so substantial as to effectively deny the respondent a fair hearing, or if new and significant evidence became available which could not have been discovered by a properly diligent respondent before or during the original hearing. On remand, no indication or record of the previous conduct hearing will be introduced or provided to members of the new conduct panel, except to impeach contradictory testimony at the discretion of the presiding officer. The board will be directed by the committee not to repeat the specified errors that caused the remand.
(c) cases may be dismissed only if the finding is held to be arbitrary and capricious.
(d) decisions of the Appellate Board shall be recommendations to the Director of Student Conduct. Decisions of the Senate Committee on Student Conduct shall be recommendations to the Vice President for Student Affairs. Decisions altering the determinations of all hearing boards and the Senate Committee on Student Conduct shall be accompanied by a brief written opinion.

48. The imposition of sanctions will normally be deferred during the pendency of appellate proceedings, at the discretion of the Director of Student Conduct.

**Disciplinary Files and Records**

49. Case referrals may result in the development of a disciplinary file in the name of the respondent, which shall be voided if the respondent is found innocent of the charges. The files of respondents found guilty of any of the charges against them will be retained as a disciplinary record for three years from the date of the letter providing notice of final disciplinary action. Disciplinary records may be retained for longer periods of time or permanently, if so specified in the sanction.

50. Disciplinary records may be voided by the Director of Student Conduct for good cause, upon written petition of respondents. Factors to be considered in review of such petitions shall include:

(a) the present demeanor of the respondent.
(b) the conduct of the respondent subsequent to the violation.
(c) the nature of the violation and the severity of any damage, injury, or harm resulting from it.

51. Denials of petitions to void disciplinary records shall be appealable to the Senate Committee on Student Conduct, which will apply the standard of review specified in Part 47 and 47(c). The requirements for appeals as set forth in Part 43 and 44 shall be applicable.

52. Disciplinary records retained for less than 90 days or designated as
"permanent" shall not be voided without unusual and compelling justification.55

Annotations

1. The University is not designed or equipped to rehabilitate or incapacitate persons who pose a substantial threat to themselves or to others. It may be necessary, therefore, to remove those individuals from the campus and to sever the institutional relationship with them, as provided in this Code of Student Conduct and by other University regulations.*

Any punishment imposed in accordance with the Code may have the value of discouraging the offender and others from engaging in future misbehavior. In cases of minor disciplinary violations, the particular form of punishment may also be designed to draw upon the educational resources of the University in order to bring about a lasting and reasoned change in behavior. The underlying rationale for punishment need not rest on deterrence or "reform" alone, however. A just punishment may also be imposed because it is "deserved" and because punishment for willful offenses affirms the autonomy and integrity of the offender. The latter concept was expressed by D.J.B. Hawkins in his essay "Punishment and Moral Responsibility" in 7 Modern Law Review 205:

The vice of regarding punishment entirely from the points of view of reformation and deterrence lies precisely in forgetting that a just punishment is deserved. The punishment of men then ceases to be essentially different from the training of animals, and the way is open for the totalitarian state to undertake the forcible improvement of its citizens without regard to whether their conduct has made them morally liable to social coercion or not. But merit and demerit, reward and punishment, have a different significance as applied to men and as applied to animals. A dog may be called a good dog or a bad dog, but his goodness or badness can be finally explained in terms of heredity and environment. A man, however, is a person, and we instinctively recognize that he has a certain ultimate personal responsibility for at least some of his actions. Hence merit and demerit, reward and punishment, have an irreducible individual significance as applied to men. This is the dignity and the tragedy of the human person.

A similar view was expressed by Justice Powell, dissenting in Goss v. Lopez (42 L. Ed. 2d 725, 745):

Education in any meaningful sense includes the inculcation of an understanding in each pupil of the necessity of rules and obedience thereto. This understanding is no less important than learning to read and write. One who does not comprehend the meaning and necessity of discipline is handicapped not merely in his education but throughout his subsequent life. In an age when the home and church play a diminishing role in shaping the character and value judgments of the young, a heavier responsibility falls upon the schools. When an immature student merits censure for his conduct, he is rendered a disservice if appropriate sanctions are not applied.

2. An effort is made in the Code to use a simplified numbering and lettering system, without use of Roman numerals or subsets of letters and numbers. Any part of the Code can be found by reference to one number and one letter [e.g., Part 10(a) explains the meaning of expulsion].

3. Culpable conduct should include conscious acts posing a substantial risk or harm to others (e.g. throwing a heavy object out a tenth floor window above a sidewalk). If the act itself, however, is unintended (e.g. one is distracted by a noise while climbing a flight of stairs and drops a heavy object) the individual may have failed to use reasonable care, but is not normally deserving of the moral stigma associated with a "conviction" for a disciplinary offense.

4. Former students may be charged for violations which allegedly occurred during their enrollment at the University.

5. Colleges and universities are not expected to develop disciplinary regulations which are written with the scope of precision of a criminal Code. Rare occasions may arise when conduct is so inherently and patently dangerous to the individual
or to others that extraordinary action not specifically authorized in the rules must be taken.

6. The terms "suspension" and "interim suspension" are to be distinguished throughout the Code and are not interchangeable.

7. Disciplinary removal from University housing should be distinguished from administrative removal for violations of the residence contract. The latter does not leave students with a disciplinary record and does not come under the purview of this Code.

8. The standard set forth here represents the minimal procedural protection to be accorded to students charged with most disciplinary violations. Students who are subject to lengthy suspensions or to expulsion may be entitled to more formal procedures, including a hearing with a right to cross-examine the witnesses against them. Goss v. Lopez, 419 U.S. 565 (1975).

9. The Supreme Court has recently rejected the theory that state schools are bound by principles of federal administrative law requiring agencies to follow their own regulations. Board of Curators, University of Missouri v. Horowitz 55 L.Ed 2d 124, 136. See, generally, "Violation by Agencies of Their Own Regulations" 87 Harvard Law Review 629 (1974).

10. Respondents in disciplinary proceedings may be directed to answer questions concerning their conduct. Students who refuse to answer on grounds of the Fifth Amendment privilege may be informed that the hearing panel could draw negative interferences from their refusal which might result in their suspension or dismissal. If the student then elects to answer, his/her statements could not be used against him/her in either state or federal court. Garrity v. New Jersey, 385 U.S 493 (1967). See also Furutani v. Ewigleben, 297 F. Supp. 1163 (N.D.Cal. 1969).

11. The "controlled substances" or "illegal drugs" prohibited in this section are set forth in Schedules I through V in Article 27, part 279 of the Annotated Code of Maryland.

12. Colleges and universities should be a forum for the free expression of ideas. In the recent past, however, unpopular speakers have been prevented from addressing campus audiences by students who effectively "shouted them down." Both Yale and Stanford Universities have treated such actions (which are to be distinguished from minor and occasional heckling) as serious disciplinary violations. See the "Report from the Committee on Freedom of Expression at Yale University" which is available in the Office of Student Conduct.

The following language from the Yale report may be used to elaborate upon the intent and scope of Part 9(j) of this Code.

A. "There is no right to protest within a University building in such a way that any University activity is disrupted. The administration, however, may wish to permit some symbolic dissent within a building but outside the meeting room, for example, a single picket or a distributor of handbills."

B. "[A] member of the audience may protest in silent, symbolic fashion, for example, by wearing a black arm band. More active forms of protest may be tolerated such as briefly booing, clapping hands or heckling. But any disruptive activity must stop [and not be repeated] when the chair or an appropriate University official requests silence.

C. "Nor are racial insults or any other 'fighting words' a valid ground for disruption or physical attack .... The banning or obstruction of lawful speech can never be justified on such grounds as that the speech or the speaker is deemed irresponsible, offensive, unscholarly, or untrue."

13. A compilation of published regulations which have been reviewed and approved by the Vice President shall be available for public inspection during normal business hours in the Office of Student Conduct.
direction of the guidance is toward imposition of more severe disciplinary. The "controlled substances" or "illegal drugs" prohibited in this section are set forth in Schedules I through V in Article 27, part 279 of the Annotated Code of Maryland.

15. This Part and Parts 12 and 13 represent an attempt to give needed guidance to those who are assessing penalties. Moreover the sanctions in serious cases. Nonetheless, the language concerning "mitigating factors" is broad enough to give decision makers considerable leeway to "do justice," depending upon the facts in each case. The burden of establishing facts in mitigation should, of course, be upon the respondent.

16. There does not seem to be any rational basis for imposing less severe penalties for attempts than for completed violations. The authors of the Model Penal Code, for example, have written that:

To the extent that sentencing depends upon the antisocial disposition of the actor and the demonstrated need for a corrective action, there is likely to be little difference in the gravity of the required measures depending on the consummation or the failure of the plan. See La Fave, Criminal Law Treatise p. 453.

17. These procedures are analogous to those found in the "emergency"disciplinary rules adopted by the Board of Regents in 1971 and are consistent with the formal opinion of the Maryland Attorney General on this subject, dated January 23, 1969. See also Goss v. Lopez,419 U.S. 565 (1975). Nothing in this provision would prohibit the Vice President from modifying the terms of an interim suspension, so long as the hearing requirement specified in Part 18 was met. For example, a suspended student might be allowed to enter University premises solely for the purpose of attending classes.

18. Staff members in the Office of Student Conduct should endeavor to arrange a balanced presentation before the various conduct boards and may assist both complainants and respondents.

19. This language does not effect any change in previous policy concerning the powers of conduct boards. All board decisions, including those rendered by Conference Boards, shall be treated as recommendations.

20. See Annotation 1, supra. The deterrent effect of punishment is diminished if the community is unaware of the number and general nature of sanctions imposed. The Director of Student Conduct may, for example, arrange for publication of the statistical report in the campus press each semester.

21. Boards established pursuant to this section might include modified versions of the present "Greek" or residence hall boards.

22. It is intended that a quorum will consist of three members (out of five). The authority to appoint ad hoc boards should be broadly construed and might be especially useful, for example, when a conduct board or the Senate Committee is charged with hearing a case involving one of its own members. The final determination as to whether a panel is "unable to hear a case" should be within the discretion of the Director of Student Conduct.

23. The power of confirmation represents a significant grant of authority to the Senate Committee. The committee is presently under-utilized and might best contribute to the judicial system by becoming more involved with it. Moreover, confirmation procedures will give committee members direct contact with board members and will also allow the committee to exercise more control over the quality of Conduct Board decisions.

24. Proposed bylaws must be submitted to the Attorney General for review.

25. It could be a public embarrassment for the University to have a student charged with or convicted of a serious crime sit in judgment over other students in disciplinary proceedings. The various state criminal Codes are usually so broad and archaic, however, that automatic suspension or removal should not result from any violation of any law (e.g., New York makes it a criminal misdemeanor...
for anyone "to dance continuously in a dance contest for 12 or more hours without respite").

26. Case referrals should not be limited to members of the "campus community." A student who assaults another person on campus should not escape University judicial action merely because the person assaulted was a visitor (or, as in a recent case, a former student who had just withdrawn from the University).

27. The Director of Student Conduct may appoint a trained volunteer from the campus community to serve as the complainant. It would be preferable, however, to employ a "community advocate" to present all disciplinary cases.

Several measures in the Code are designed to restore balance in disciplinary proceedings, even in those cases in which the complainant is inexperienced with administrative adjudication:

(a) A hearing officer may be appointed in complex or serious cases. See Part 34(p).
(b) The role of attorneys or advisors may be restricted. See Parts 35 and 36, and Annotation 39.
(c) The "disciplinary conference" procedure is designed to eliminate adversary proceedings in minor cases. See Parts 32-33 and Annotation 29.

28. Staff members may consider the mitigating factors specified in Part 11 to determine the permissible sanction to be imposed if the respondent is found guilty of charges. For example, a student involved in a minor altercation might be charged pursuant to Part 9(a), but referred to a disciplinary conference, thereby precluding the possibility of expulsion or suspension for the alleged misconduct.

29. The hearing procedures specified at Part 34 need not be followed in disciplinary conferences. Instead a disciplinary conference would normally consist of an informal, non adversarial meeting between the respondent and a staff member in the Office of Student Conduct. Complainants would not be required to participate, unless their personal testimony was essential to the resolution of a dispositive factual issue in the case. Documentary evidence and written statements could be relied upon, so long as respondents are given access to them in advance and allowed to respond to them at the conference. Respondents would also be allowed to bring appropriate witnesses with them and might be accompanied by a representative, who may participate in discussions, although not in lieu of participation by the respondent.

The conference procedure is designed to reduce the steady growth of unnecessary legalism in disciplinary proceedings. The worst features of the adversary system (including the concept that judicial proceedings are a "contest" to be "won" by clever manipulation of procedural rules) undermine respect for the rule of law. Colleges and universities can and should be a testing ground for development of carefully reasoned alternatives to current procedural excesses in the larger society.**

Procedures comparable to the disciplinary conference (referred to as "structured conversations") are suggested by David L. Kirp in this 1976 article "Proceduralism and Bureaucracy: Due Process in the School Setting" 38 Stanford Law Review 841:

The benefits of such conversations in the school setting may better be appreciated by contrasting them with the typical due process hearing. Hearings are designed to determine the facts of a particular controversy, and apply predetermined rules to the facts thus found. At that point, the function of the hearing is at an end. The wisdom of the underlying substantive rules has no relevance, nor is broader discussion of grievances generally encouraged, unless it is somehow pertinent to the dispute at hand.

Conversation knows no such limits. It too serves as a vehicle for resolving what are likely to be factually uncomplicated disputes, but it does more than that. It enables students to feel that they are being listened to and may encourage them to raise underlying grievances. It provides administrators with a relatively
inexpensive vehicle for monitoring, and hence a basis for reshaping institutional relationships. The outcome of these 'orderly thoughtful conversations' may well be decisions different in their particulars from what might otherwise have been anticipated; repeated conversations which touch upon similar student grievances may ultimately lead disciplinarians to reassess whether control is so vital, and collaboration so improbable, as a means of assuring institutional order.

The conference procedure would not be used in any case which might result in any form of separation from the University. Accordingly, the procedure appears to meet or exceed the due process requirements set forth by the United States Supreme Court for cases involving suspensions of ten days or less. In Goss v. Lopez the Court held:

[W]e stop short of construing the Due Process Clause to require, countrywide, that hearings in connection with short suspensions must afford the student the opportunity to secure counsel, to confront and cross-examine witnesses supporting the charge, or to call his own witnesses to verify his version of the incident. Brief disciplinary suspensions are almost countless. To impose in each such case even truncated trial-type procedures might well overwhelm administrative facilities in many places and, by diverting resources, cost more than it would save in educational effectiveness. Moreover, further formalizing the suspension process and escalating its formality and adversary nature may not only make it too costly as a regular disciplinary tool but also destroy its effectiveness as part of the teaching process.

On the other hand, requiring effective notice and an informal hearing permitting the student to give his version of the events will provide a meaningful hedge against erroneous action. At least the disciplinarian will be alerted to the existence of disputes about facts and arguments about cause and effect. He may then determine himself to summon the accuser, permit cross-examination, and allow the student to present his own witnesses. In more difficult cases, he may permit counsel. In any event, his discretion will be more informed and we think the risk of error substantially reduced (42 L. Ed. 725, 740).

30. The case file consists of materials which would be considered "education records," pursuant to the Family Educational Rights and Privacy Act. Personal notes of University staff members or complainants are not included.

31. Determinations made in accordance with Parts 32 and 33 are not appealable.

32. Internal subpoenas may be desirable, since cases have arisen in which complainants or respondents were unable to present an effective case due to the indifference and lethargy of potential witnesses. A student who refused to respond to a subpoena may be charged with a violation of Part 9(n) of the Code. The Director of Student Conduct should not approve a subpoena unless the expected testimony would be clearly relevant. Likewise, a subpoena designed to embarrass or harass a potential witness should not be authorized. The subpoena power specified here is not designed to reach documents or other materials.

33. Board members should be disqualified on a case basis only; permanent removal should be accomplished in accordance with Part 27. Board members should not be readily disqualified. The term "personal bias" involves animosity toward a party or favoritism toward the opposite party. See, generally, Davis, Administrative Law Treatise "Bias" Section 12.03.

34. The exclusionary rule generally does not apply to civil administrative proceedings. Furthermore, the University of Maryland is exempted by statute from the applicable portions of the Administrative Procedure Act. The Maryland Court of Appeals, however, has barred evidence from administrative proceedings where a respondent establishes that officials were improperly motivated to illegally seize the evidence. See Sheetz v. City of Baltimore, 315 Md. 208 (1989).

35. Testimony containing hearsay may be heard, if relevant. A final determination should not be based on hearsay alone.

36. Every statement or assertion need not be proven. For example, board members may take notice that many students commute to the University.
37. Student presiding officers are often at a disadvantage when the respondent is represented by an attorney. The proceedings might progress more rapidly and efficiently if a special presiding officer were appointed. G
Appendix D: University Policy on Disclosure of Student Records - Family Educational Rights and Privacy Act

Approved by President. 1 August 1991; updated April 15, 1996, June 2, 1997, and October 1, 2002 by President's Legal Office.

I. POLICY

A. It is the policy of UMCP to comply with the requirements of the Federal Family Educational Rights and Privacy Act, known as the Buckley Amendment, concerning the disclosure of student records. Following is an outline of the policy, and an explanation of the procedures by which students may obtain access to education records. A copy of this policy shall be furnished annually to each student with registration materials.

II. DEFINITIONS

A. "Attendance"
"Attendance" includes but is not limited to attendance in person or by correspondence; and the period during which a person is working under a work-study program.

B. "Directory Information"
"Directory Information" means information which would generally not be considered harmful or an invasion of privacy if disclosed. It includes, but is not limited to, a student's name, address, telephone listing, e-mail address, date and place of birth, major field of study, full-time/part-time status, participation in officially recognized activities and sports, weight and height of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended.

C. "Disclosure"
"Disclosure" means to permit access to or the release, transfer, or other communication of education records to any party by any means, including oral, written, or electronic means.

D. "Education Records"
"Education Records" means those records maintained by UMCP which contain information directly related to a student except:
(1) Records made by instructors, professors, and administrators for their own use, and not shown to others.
(2) Records maintained by UMCP Police solely for law enforcement purposes and kept separately from the education records described above.
(3) Records of employment which relate exclusively to the individual in that individual's capacity as an employee, and are not available for use for any other purpose.

(Note: If a currently enrolled student is employed as a result of his or her status as a student, records relating to that employment are education records.)

(4) Records on a student who is eighteen years of age or older made by a
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physician, psychiatrist, psychologist, or other recognized professional or paraprofessional made or used only for treatment purposes and available only to persons providing treatment.

(NOTE: Treatment for the purposes of this definition does not include remedial educational activities.)

(5) Alumni records which contain only information relating to a person's activities after that person is no longer a student at UMCP and do not relate to that person as a student.

"Parent" means a parent of a student, and includes a natural or adoptive parent, a guardian, or, in the absence of natural or adoptive parents, an individual acting as a parent.

"Party" means an individual, agency, institution, or organization.

"Personally identifiable information" means a student's name, a name of a student's parent or family members, an address of a student or a student's family, a personal identifier, such as a social security number or student number, a list of personal characteristics or any information that would make a student's identity traceable.

"Record" means any information recorded in any way including but not limited to handwriting, print, tape, film, microfilm, and microfiche.

"Student" means any individual who is or has been in attendance at UMCP and on whom education records are maintained.

III. RIGHT OF ACCESS
Each student in attendance at UMCP has a right to inspect and review his or her education records.

A. Procedure

(1) Form of Request
Requests for access to education records must be made in writing, signed by the student, and must include the student's social security number.

(2) Place of Request
Requests are made to:
Registrar's Office
Mitchell Building
College Park, Maryland 20742-5231

(3) Response by UMCP
UMCP will comply with a request for access within a reasonable time, not to exceed 45 days. Whenever possible, arrangements shall be made for the student to read his or her records in the presence of a staff member.

(4) Reproduction of Records
A student may ordinarily obtain copies of education records by paying the cost of reproduction. The fee for photocopies is $.25 per page. There is no charge for staff time to search for or collect education records. Only copies of a student's current UMCP transcript will be provided. Official University of Maryland transcripts with the seal of the University will be provided at a higher cost.

B. Procedure

Types and Locations of Education Records Maintained at UMCP
(NOTE: All requests must be routed through the Registrar's Office.)

(1) Admissions
Applications and transcripts from institutions previously attended.

a. Undergraduate:
Director of Admissions
Mitchell Building

b. Graduate:
Director of Graduate Records
Lee Building

(2) Registrations
All on-going academic and biographical records, undergraduate and graduate:

Director of Registrations
Mitchell Building

(3) Departments
Departmental Offices
Chair of the Department

(4) Deans
Miscellaneous records
Dean's office of each school

(5) Resident Life
Student's housing records
Director of Resident Life

(6) Advisors
Letters of evaluation, personal information sheet, transcript, test scores (with student permission).
Pre-law advisor: Hornbake Library
Pre-dental advisor: Hornbake Library
Pre-medical advisor: Hornbake Library

(7) Judicial Affairs
Student's judicial and disciplinary records
Director of Judicial Programs
Mitchell Building

(8) Counseling Center
Biographical data, summaries of conversations with students, test results
Director
Shoemaker Hall

(NOTE: Where records are used only for treatment purposes, they are not education records and are not subject to this policy.)

(9) Financial Aid
Financial Aid applications, needs analysis statements, awards made

Undergraduate:
Director of Financial Aid
Lee Building

Graduate:
Deans' Offices

(NOTE: There is no student access to parents' confidential statements.)

(10) Career Development Center
Recommendations, unofficial copies of academic records

http://www.umd.edu/catalog/index.cfm/show/content.section/c/52/s/945
C. Waiver of Access to Confidential Recommendations

A student may waive the right of access to confidential recommendations in the following areas:

(1) admission to any educational institution;
(2) job placement;
(3) receipt of honors and awards.

The waiver must be in writing, and UMCP shall not require such waivers as a condition to admission, or the receipt of any service or benefit. If right of access is waived, a student will be notified, upon written request, of the names of all persons making confidential recommendations. Such recommendations shall be used only for the purpose for which they were specifically intended. A waiver may be revoked in writing at any time, and will only apply to subsequent recommendations.

IV. DISCLOSURE OF PERSONALLY IDENTIFIABLE INFORMATION

It is the policy of UMCP to limit disclosure of personally identifiable information without a student's prior written consent, subject to the following limitations and exceptions:

A. Directory Information (defined above)
(1) This information may be disclosed and may appear in public documents unless a student files a written notice not to disclose any or all of the information within three weeks of the first day of the semester in which the student begins each year. This notice must be filed annually with the Registrar's Office within the allotted time to avoid automatic disclosure of directory information.

(2) Students will be given annual notice of the categories of information designated as directory information.

B. Prior Consent Not Required
Prior consent is not required for disclosure of education records to the following parties:

(1) School officials of UMCP who are or may be in a position to use the information in furtherance of a legitimate educational objective.

A school official is:

a. A person employed by the University of Maryland System in an administrative, supervisory, academic, research or support staff position.
b. A member of the Board of Regents.
c. A person employed by or under contract to the University to perform a special task, such as an attorney or auditor.

A school official has a legitimate educational interest if the official is:

a. Performing a task that is specified in his or her position
description or by a contract agreement.
b. Performing a task related to a student's education.
c. Performing a task related to the discipline of a student.
d. Providing a service or benefit relating to the student's family, such as health care, counseling, job placement, or financial aid.

2. Officials of other schools in which a student seeks or intends to enroll or is enrolled. A student will be provided with a copy of the records which have been transferred upon request and payment of copying fees as described above.

3. Authorized representatives of the Comptroller General of the United States, the Secretary of Education, the Commissioner of the Office of Education, the Director of the National Institute of Education, the Administrator of the Veterans' Administration, the Assistant Secretary of Education, and State educational authorities, but only in connection with the audit or evaluation of federally supported education programs, or in connection with the enforcement of or compliance with federal legal requirements relating to these programs. Subject to controlling federal law, these officials will protect information received so as not to permit personal identification of students to outsiders.

4. Authorized persons and organizations who are given work in connection with a student's application for or receipt of financial aid to the extent necessary.

5. State and local officials to which such information is required to be reported by effective state law adopted prior to November 19, 1974.

6. Organizations conducting education studies for the purpose of developing, validating, or administering predictive tests, administering student programs, and improving instruction. The studies shall be conducted so as not to permit personal identification of students to outsiders, and the information is to be destroyed when no longer needed for these purposes.

7. Accreditting organizations for purposes necessary to carry out their functions.

8. Parents of a student who is dependent for income tax purposes.

9. Appropriate parties in connection with an emergency, where knowledge of the information is necessary to protect the health or safety of the student or other individuals.

10. In response to a court order or subpoena. Unless the issuing entity orders the university against prior notification, the university will make reasonable efforts to notify the student before complying with the court order.

11. To an alleged victim of any crime of violence of the results of any institutional disciplinary proceedings against the alleged perpetrator of that crime with respect to that crime.

C. Prior Consent Required In All Other Cases

UMCP will not release personally identifiable information in education records, or allow access to those records without prior consent from the student. The consent must be in writing, signed by the student, and dated. The student must specify the records to be disclosed, the identity of the recipient, and the purpose of the disclosure. A copy of the record disclosed will be provided to the student upon request and payment of copy fees described above.

D. Record of Disclosures

1. Maintenance of List
UMCP shall maintain a list of each request and each disclosure of personally identifiable information with each student's education records. The list shall include:
a. the parties who have requested or received the information;
b. the legitimate interest the parties had in requesting or receiving the information.
(2) Inspection of List
The list of disclosures may be inspected by:
a. the student;
b. the official custodian of the record; and
c. other UMCP and governmental officials.

(3) Exceptions
The following disclosures are not listed:
a. disclosures to the student;
b. disclosures pursuant to written consent;
c. disclosures to instructional or administrative officials of UMCP;
d. disclosures of directory information.

V. CORRECTION OF EDUCATION RECORDS

It is the policy of UMCP to provide students the opportunity to seek corrections to education records which are believed to be inaccurate, misleading, or which violate the right to privacy or other rights.

A. Request to Correct an Education Record

(1) A request must be in writing to the Registrar's Office.
(2) A request must contain:
a. the specific document(s) being challenged; and
b. the basis for the challenge.
(3) UMCP shall decide within a reasonable time whether to amend the document(s). The student shall be notified of the decision in writing, and if the decision is to refuse to amend, the student shall be notified of the right to a hearing.

B. Right to a Hearing

Upon request, a student shall be provided an opportunity for a hearing to challenge the content of education records. A request for a hearing must be made in writing to the Registrar's Office. Within a reasonable time, the student shall be notified in writing of the date, place, and time. The student shall be given reasonable advance notice of the hearing.

C. Conduct of Hearing

(1) The hearing shall be conducted by a UMCP official with no direct interest in the outcome.
(2) The student shall have a full and fair opportunity to present evidence, and may be represented by individuals of his or her choice, including an attorney. The cost for such representation shall be the responsibility of the student.

D. Decision

(1) The student shall be notified in writing within a reasonable amount of time.
(2) The decision is to be based solely upon evidence presented at the hearing, and must include a summary of the basis of the decision.
(3) In cases where the challenged information is found to be inaccurate, misleading, or otherwise in violation of the privacy or other rights of the student, the education records shall be amended accordingly within a reasonable time.
(4) In cases where the challenged information is not found to be inaccurate, misleading, or otherwise in violation of the privacy or other rights of a student, the student shall be informed in writing of the right to place in the challenged record a statement commenting on the information and explaining any reasons for disagreeing with the decision.
(5) The statements described above shall be kept as part of the student's record and disclosed whenever that portion of the record is disclosed.

VI. RIGHT TO FILE A COMPLAINT

Student alleging noncompliance with the Family Educational Rights and Privacy Act may file a complaint with the Department of Education, 600 Independence Avenue, S.W., Washington, D.C. 20202-4605.
Appendix E: Smoking Policy and Guidelines

Approved by the President
March 6, 1993
Amended September 24, 2001

A. Policy

UMCP has found that a significant percentage of faculty, staff and students do not smoke, smoke is offensive to many non-smokers, it is harmful and even debilitating to some individuals due to their physical condition, and there is evidence suggesting that passive smoke inhalation is harmful to non-smokers. In response to the above considerations, it is hereby established as the policy of UMCP to achieve a public facility environment as close to smoke-free as practicably possible. Obtaining and maintaining this result will require the willingness, understanding, and patience of all members of the Campus community.

It is the policy of UMCP to follow all federal, state, or local laws regarding smoking. This Smoking Policy is in addition to any such policies which may be in effect.

B. Guideline

1. Smoking is prohibited in indoor locations.
2. Smoking is prohibited outside of buildings within 15 feet of any building entrance, air intake duct or window.

C. Implementation

Unit heads, or their designees, are responsible for:
1. Assuring that this policy is communicated to everyone within their jurisdiction and to all new members of the Campus community.
2. Implementing the policy and guideline and assuring that appropriate notice is provided.
3. Developing guidelines to embrace all special circumstances in the campus is impossible. If unit heads find circumstances in their areas that they believe warrant exception from particular provisions in this Smoking Policy and Guidelines, they may address requests for specific local exceptions to the President or his or her designee.

D. Compliance

This policy relies on the thoughtfulness, consideration, and cooperation of smokers and non-smokers for its success. It is the responsibility of all members of the Campus community to observe this Smoking Policy and Guideline.

Complaints or concerns regarding this policy or disputes regarding its implementation should be referred to the immediate supervisor for resolution. If a resolution cannot be reached, the matter will be referred by the supervisor to the appropriate department head or vice president for mediation.

E. Review

The provisions and guidelines attaching to this Smoking Policy shall be subject to future review and revision to ensure that the objective is obtained. Special attention shall be given to determining if voluntary compliance without disciplinary sanctions has proven satisfactory.
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Appendix L: Completion of Interrupted Degree

Appendix M: Required Disclosure of University Procedure on the Collection, Use and Protection of Student Social Security Numbers (SSN)

Appendix N: Transfer Credit Policy Maryland Higher Education Commission (Title 13 B)

Appendix O: Code of Academic Integrity
Appendix F: Board of Regents Resolution on Academic Integrity

The academic regulations and requirements of the University of Maryland, College Park, are designed to provide and enhance a maximum educational environment for the entire campus academic community. The success of the design depends upon the mutual respect, courteous treatment, and consideration of everyone involved. The following statements contain procedures and expectations for both faculty and students. For questions about the interpretation of these statements, students should contact their academic advisor, department chair, or dean.

Resolution on Academic Integrity

Approved by Board of Regents
May 8, 1981

WHEREAS, it is the responsibility of the University of Maryland to maintain integrity in teaching and learning as a fundamental principle on which a university is built; and

WHEREAS, all members of the university community share in the responsibility for academic integrity; therefore

BE IT RESOLVED, that the University of Maryland Board of Regents hereby adopts the following Statement of Faculty, Student and Institutional Rights and Responsibilities for Academic Integrity.

Statement of Faculty, Student and Institutional Rights and Responsibilities for Academic Integrity

Preamble

At the heart of the academic enterprise are learning, teaching, and scholarship. In universities these are exemplified by reasoned discussion between student and teacher, a mutual respect for the learning and teaching process, and intellectual honesty in the pursuit of new knowledge. In the traditions of the academic enterprise, students and teachers have certain rights and responsibilities which they bring to the academic community. While the following statements do not imply a contract between the teacher or the university and the student, they are nevertheless conventions which the university believes to be central to the learning and teaching process.

Faculty Rights and Responsibilities

1. Faculty shall share with students and administration the responsibility for academic integrity.

2. Faculty are accorded freedom in the classroom to discuss subject matter reasonably related to the course. In turn they have the responsibility to encourage free and honest inquiry and expression on the part of students.

3. Faculty are responsible for the structure and content of their courses, but they have the responsibility to present courses that are consistent with their descriptions in the university catalog. In addition, faculty have the obligation to make students aware of the expectations in the course, the evaluation procedures, and the grading policy.
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4. Faculty are obligated to evaluate students fairly and equitably in a manner appropriate to the course and its objectives. Grades shall be assigned without prejudice or bias.

5. Faculty shall make all reasonable efforts to prevent the occurrence of academic dishonesty through the appropriate design and administration of assignments and examinations, through the careful safeguarding of course materials and examinations, and through regular reassessment of evaluation procedures.

6. When instances of academic dishonesty are suspected, faculty shall have the right and responsibility to see that appropriate action is taken in accordance with university regulations.

Student Rights and Responsibilities

1. Students shall share with faculty and administration the responsibility for academic integrity.

2. Students shall have the right of inquiry and expression in their courses without prejudice or bias. In addition, students shall have the right to know the requirements of their courses and to know the manner in which they will be evaluated and graded.

3. Students shall have the obligation to complete the requirements of their courses in the time and manner prescribed and to submit to evaluation of their work.

4. Students shall have the right to be evaluated fairly and equitably in a manner appropriate to the course and its objectives.

5. Students shall not submit as their own work any work which has been prepared by others. Outside assistance in the preparation of this work, such as librarian assistance, tutorial assistance, typing assistance, or such assistance as may be specified or approved by the instructor is allowed.

6. Students shall make all reasonable efforts to prevent the occurrence of academic dishonesty. They shall by their own example encourage academic integrity and shall themselves refrain from acts of cheating and plagiarism or other acts of academic dishonesty.

7. When instances of academic dishonesty are suspected, students shall have the right and responsibility to bring this to the attention of the faculty or other appropriate authority.

Institutional Responsibility

1. Campuses or appropriate administrative units of the University of Maryland shall take appropriate measures to foster academic integrity in the classroom.

2. Campuses or appropriate administrative units shall take steps to define acts of academic dishonesty, to ensure procedures for due process for students accused or suspected of acts of academic dishonesty, and to impose appropriate sanctions on students guilty of acts of academic dishonesty.

3. Campuses or appropriate administrative units shall take steps to determine how admission or matriculation shall be affected by acts of academic dishonesty on another campus or at another institution. No student suspended for disciplinary reasons at any campus of the University of Maryland shall be admitted to any other University of Maryland campus during the period of suspension.
AND, BE IT FURTHER RESOLVED, that campuses or appropriate administrative units of the University of Maryland will publish the above Statement of Faculty, Student and Institutional Rights and Responsibilities for Academic Integrity in faculty handbooks and in student handbooks and catalogs; and

BE IT FURTHER RESOLVED, that the Board of Regents hereby directs each campus or appropriate administrative unit to review existing procedures or to implement new procedures for carrying out the institutional responsibilities for academic integrity cited in the above Statement; and

BE IT FINALLY RESOLVED, that the Board of Regents hereby directs each campus or appropriate administrative unit to submit to the President or designee for approval the campus' or unit's procedure for implementation of the institutional responsibility provisions of the above Statement.

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Appendix G: Statute of Limitations for the Termination of Degree Programs

Committee on Academic Procedures and Standards
Approved December 7, 1989

The following policies apply to all undergraduate degree programs terminated at the University of Maryland at College Park at the beginning of the Spring, 1990 Semester and thereafter.

1. All students enrolled at the University of Maryland, College Park or at a Maryland community college program articulated with the terminated degree program during the semester in which the program is terminated must complete the major requirements of the terminated degree program within five calendar years of the date upon which the program is terminated. If only a few students are enrolled in a terminated program, a shorter time limit may be imposed based on a study of the academic records of all students enrolled in the program. If a shorter time period is imposed, all students enrolled in the program will be notified of its length.

2. Students who, prior to the termination date had been enrolled in the terminated program or a Maryland community college articulated with the terminated program, but who subsequently interrupt their studies at the University of Maryland, College Park or the community college for one or more semesters will be allowed to enter or re-enter the program only if a careful analysis of their records by the appropriate dean indicates they will be able to complete the major requirements of the terminated program within the remaining time period specified.

3. When a program is terminated the University of Maryland, College Park will make a good faith effort to notify those students who had interrupted their studies in that program. As part of that good faith effort, the University of Maryland at College Park will publish in its re-enrollment forms, catalogues, and schedules of classes a statement advising returning students that programs may have been terminated and that the student needs to check the current status of the program.

4. At the end of the time period specified for completion of major requirements after the termination date of the program, the relevant department or college will evaluate the records of each student enrolled in the program for fulfillment of departmental major requirements and will notify students whether they have completed these requirements. Such notice shall be in writing and sent to the student's last known addresses.

5. When a degree program is terminated, the university will send notification of the time limit for completion of the major requirements to all students enrolled in the program at that time. It will also attempt to send notification to students who interrupted their studies while enrolled in the program in the preceding three years, insofar as such students can reasonably be identified. This notification will be sent to the students' last known addresses on file with the university. Such notifications also will be sent to the Maryland community colleges having programs articulated with the terminated program.
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Appendix O: Code of Academic Integrity
Appendix H: VIII-2.70 Policy on Student Classification for Admission and Tuition Purposes

(Approved by the Board of Regents August 28, 1990; Amended July 10, 1998; Amended November 27, 2000; Amended April 11, 2003; Amended June 23, 2006)

(Includes Guidelines for Interpretation of the Board of Regents Policy for Student Residency Classification)

I. Policy

A. Purpose

To extend the benefits of its system of higher education while encouraging the economical use of the State's resources, it is the policy of the Board of Regents of the University System of Maryland (USM) to recognize the tuition categories of in-state and out-of-state students for the purpose of admission and assessing tuition at USM institutions.

B. Burden of Proof

The person seeking in-state status shall have the burden of proving by clear and convincing evidence that he or she satisfies the requirements and standards set forth in this Policy. Assignment of in-state or out-of-state status will be made by the applicable USM institution upon a review of the totality of facts known or presented to it.

C. In-state Status

To qualify for in-state tuition, a student must demonstrate that, for at least twelve (12) consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the student seeks in-state tuition status, the student had the continuous intent to:

1. Make Maryland his or her permanent home; and
2. Abandon his or her former home state; and
3. Reside in Maryland indefinitely; and
4. Reside in Maryland primarily for a purpose other than that of attending an educational institution in Maryland.

Satisfying all of the requirements in Section II (and Section III, when applicable) of this policy demonstrates continuous intent and qualifies a student for in-state tuition. Students not entitled to in-state status under this policy shall be assigned out-of-state status for admission and tuition purposes.

D. Presumption

Either of the following circumstances raises a presumption that the student is residing in the State of Maryland primarily for the purpose of attending an educational institution and therefore, does not qualify for in-state status under this policy:

1. A student is attending school or living outside Maryland at the
II. Requirements
Before a request for classification to in-state status will be considered, a student must comply with all of the following requirements for a period of at least twelve (12) consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the student seeks in-state tuition status. The student must demonstrate he or she:

1. Owns or possesses, and has continuously occupied, including during weekends, breaks and vacations, living quarters in Maryland. The student must provide evidence of a genuine deed or lease and documentation of rent payments made. In lieu of a deed or lease, a notarized affidavit from a landlord showing the address, name of the student as occupant, term of residence, and history of rent payments made will be considered. As an alternative, a student may demonstrate that he or she shares living quarters in Maryland which are owned or rented and occupied by a parent, legal guardian or spouse.
2. Has substantially all of his or her personal property, such as household effects, furniture and pets in Maryland.
3. Has paid Maryland income tax on all taxable income including all taxable income earned outside the State and has filed a Maryland tax return.
4. Has registered all owned or leased motor vehicles in Maryland.
5. Possesses a valid Maryland driver's license, if licensed.
6. Is registered to vote in Maryland, if registered to vote.
7. Receives no public assistance from a state other than the State of Maryland or from a city, county or municipal agency other than one in Maryland.
8. Has a legal ability under Federal and Maryland law to live permanently without interruption in Maryland.
9. Has rebutted the presumption that he or she is in Maryland primarily to attend an educational institution, if the student's circumstances have raised the presumption.

III. Rebuttal Evidence
Satisfying the requirements listed in paragraphs 1-8 of Section II, does not rebut the presumption that a student is in Maryland primarily to attend an educational institution. To overcome the presumption, a student must present additional evidence. To determine a student's intent, the University will evaluate evidence of a student's objectively verifiable conduct. Evidence that does not document a period of at least twelve (12) consecutive months immediately prior to and including the last date available to register for courses in the semester/term for which the student seeks in-state tuition status is generally considered an unfavorable factor under this policy. Evidence of intent must be clear and convincing and will be evaluated not only by the amount presented but also based upon the reliability, authenticity, credibility and relevance of the evidence.

The absence of objective, relevant evidence is generally considered an unfavorable factor. A student's statement of intent to remain in Maryland in the future is generally not considered to be objective evidence under this policy.

Additional evidence that will be considered includes, but is not limited to, the following:

A. Source of financial support:

i. Maryland employment and earnings history through sources beyond those incident to enrollment as a student in an educational institution (e.g., beyond support provided by work study, scholarships, grants, stipends, aid, student loans, etc.), or
ii. Evidence the student is Financially Dependent upon a person who is a resident of Maryland.

B. Substantial participation as a member of a professional, social, community, civic, political, athletic or religious organization in Maryland that is not University-related or otherwise incident to enrollment as a student in an educational institution.

C. Registration as a Maryland resident with the Selective Service, if male.

D. Evidence showing the student uses his or her Maryland address as his or her sole address of record for all purposes including on health and auto insurance records, bank accounts, tax records, loan and scholarship records, school records, military records, leases, etc.

E. An affidavit from a person unrelated to the student that provides objective, relevant evidence of a student's conduct demonstrating the student's intent to live permanently in Maryland.

IV. Non-residents who may temporarily qualify for In-state status

In addition, persons with the following status shall be accorded the benefits of in-state status for the period in which they hold such status:

A. A full-time or part-time (at least 50 percent time) regular employee of USM or a USM institution.

B. The spouse or Financially Dependent child of a full-time or part-time (at least 50 percent time) regular employee of USM or a USM institution.

C. A full-time active member of the Armed Forces of the United States whose home of record is Maryland or one who resides or is stationed in Maryland, or the spouse or a Financially Dependent child of such a person. Students that qualify under this provision will retain in-state status for tuition purposes as long as they are Continuously Enrolled regardless of a change in military assignment or status of the active member of the military.

D. A veteran of the United States Armed Forces with an honorable discharge who, within one year of discharge, presents documentation that he or she attended a secondary school in the State for at least three years, and graduated or received the equivalent of a high school diploma from a secondary school in the State. The veteran must present documentation and register at a USM institution within one year of discharge for this provision to apply.

E. For UMUC, a full-time active member of the Armed Forces of the United States on active duty, or the spouse of a member of the Armed Forces of the United States on active duty.

F. A graduate assistant appointed through a USM institution for the semester/term of the appointment. Except through prior arrangement, this benefit is available only for enrollment at the institution awarding the assistantship.

V. Procedures

A. An initial determination of In-State Status will be made by the University at the time a student's application for admission is under consideration. The determination made at that time, and any determination made thereafter, shall prevail for each semester/term until the determination is successfully challenged in a timely manner.
B. A change in status must be requested by submitting a USM "Petition for Change in Classification for Admission, Tuition and Charge Differential". A student applying for a change to In-State Status must furnish all required documentation with the Petition by the last published date to register for the forthcoming semester/term for which the change in classification is sought.

C. The student shall notify the institution in writing within fifteen (15) days of any change in circumstances which may alter In-State Status.

D. In the event incomplete, false, or misleading information is presented, the institution may, at its discretion, revoke in-state status and take disciplinary action provided for by the institution's policy. Such action may include suspension or expulsion. If In-State Status is gained due to false or misleading information, the University reserves the right to retroactively assess all Out-of-State charges for each semester/term affected.

E. Each institution of the University System of Maryland shall develop and publish additional procedures to implement this policy. Procedures shall provide that on request the President or designee has the authority to waive any residency criterion set forth in Section I. if it is determined that the student is indeed a In-State resident and the application of the criteria creates an unjust result. These procedures shall be filed with the Office of the Chancellor.

VI. Definitions

A. Financially Dependent: For the purposes of this policy, a financially dependent student is one who is claimed as a dependent for tax purposes.

B. Parent: A parent may be a natural parent, or, if established by a court order recognized under the law of the State of Maryland, an adoptive parent.

C. Guardian: A guardian is a person so appointed by a court order recognized under the law of the State of Maryland.

D. Spouse: A spouse is a partner in a legally contracted marriage.

E. Child: A child is a natural child or a child legally adopted pursuant to a court order recognized under the law of Maryland.

F. Regular Employee: A regular employee is a person employed by USM or a USM institution who is assigned to a State budget line or who is otherwise eligible to enroll in a State retirement system. Examples of categories NOT considered regular employees are graduate students, contingent employees, and independent contractors.

G. Continuous Enrollment:

i. Undergraduate Student- An undergraduate student who is enrolled at a USM institution for consecutive fall and spring semesters, until completion of the student's current degree program or unless on an approved leave of absence or participating in an approved program off-campus.

ii. Graduate and Professional- Continuous enrollment for a graduate or professional student is defined by the institution in accordance with program requirements.

VII. Implementation

This policy as amended by the Board of Regents on June 23, 2006 shall be applied to all student tuition classification decisions made on or after this date.

VIII. University of Maryland College Park Procedures

A. General Guidelines

An initial determination of resident status for admission, tuition and charge
differential purposes will be made at the time a student’s application for admission is reviewed. The determination made at that time, and any determination made thereafter, shall continue for each semester/term until that determination is changed in accordance with the following procedures. These procedures are intended only to supplement the Board of Regents Policy on Student Classification for Admissions and Tuition Purposes.

1. Newly admitted undergraduate students seeking a review of their initial residency determination must first contact the Office of Undergraduate Admissions on 301.314.8385 or on um-admit@umd.edu. Graduate students may contact the Residency Classification Office on 301.314.9596 or resclass@deans.umd.edu.

2. Students wishing to apply for a change to in-state status after their initial semester must meet all requirements set forth in the Board of Regents Policy and file a completed petition, Policy on Student Classification for Admission and Tuition Purposes along with all requested documentation, no later than the first day of the term for which the change is being requested. Late petitions and incomplete will not be accepted. Only one petition may be filed per semester.

   - Petitions may be obtained from the Residency Classification Office, Room 1130 Mitchell Building or on http://www.testudo.umd.edu/rco/downloads.html .
   - The required supporting documents are listed within the body of the petition. For your convenience, a checklist of required documents is also provided. Please note that the checklist is designed as an aid and is not a substitute for the requirements stated in the petition or residency policy.
   - Petitions will only be accepted and evaluated if accompanied by ALL supporting documents. Petitions submitted without the required documentation may not be accepted and the applicant will need to petition for a subsequent semester.

3. It is the students' responsibility to demonstrate to the satisfaction of the University that he or she meets all requirements of the Board of Regents Policy for classification as an in-state student for tuition purposes.

4. Assignment of in-state or out-of-state classification for the purposes of admission and assessing tuition will be made upon an assessment of all facts known or presented to the University of Maryland. The student petitioner shall have the burden of proof that he or she satisfies all requirements.

5. In the event that incomplete, false or misleading information is presented, the University of Maryland will revoke in-state status and may take disciplinary action against the student according to its Code of Student Conduct. If in-state status is granted due to false or misleading information, the University reserves the right to retroactively assess all out-of-state charges for each semester/term affected.

6. No requests for retroactive change in status will be accepted. A student may only file a Petition for Change in Residency Classification for a current semester according to University established deadlines. In addition, a determination of in-state status is only valid for a term in which a student is registered. Requests for Change in Residency Classification will not be accepted if a student is not registered for that term.

7. While petitions are under review, students are required to make full tuition payment at the out-of-state rate. The initial determination may take up to three (3) weeks if all supporting documents are submitted along with petition. Students are
responsible for all late fees and finance charges that are assessed if their entire bill is not paid at the time due, regardless of a pending decision from the Residency Classification Office. If the University determines that the student meets all of the requirements for in-state residency, the student's classification will be changed and a refund or account credit will be issued as appropriate.

B. Policy Guidelines

Students must meet the criteria provided in Section I.C & II of the USM Policy on Student Classification for Admission and Tuition Purposes (hereafter referred to as "USM Policy") to be eligible for in-state status. UMCP implements those criteria as follows:

1. A student's residency classification will be based on the student's ability to meet the criteria indicated in Sections I.C & II of the USM Policy, even if the student is financially dependent on another person. If the student is financially dependent upon a person who is not a resident of Maryland, the presumption shall be that the student is residing in the State of Maryland primarily for the purpose of attending an educational institution. The burden shall be on the petitioning student to rebut this presumption to the satisfaction of the University.

2. Students who are not U.S. citizens or permanent residents of the United States may satisfy criterion II.8 of the USM Policy if they hold specific visas as determined by the Office of the Attorney General of Maryland. Students may contact the Residency Classification Office on 301.314.9596 or on resclass@deans.umd.edu to inquire about the eligibility of specific visa types.

3. Section IV.C of the USM Policy, which applies to active duty members of the U.S. Armed Forces, does not include members of the U.S. "Uniformed Services" (e.g., U.S. Public Health Service) or Reservists.

4. Students may not use post office boxes (PO boxes) as their address for purposes of this policy. A bona fide street address must be provided.

C. Appeals

Residency Classification Evaluator initially reviews a student's petition and renders a decision following the Board of Regents Policy for Student Residency Classification.

1. To the Assistant Registrar responsible for the Residency Classification Office: A student who has been denied in-state reclassification following the submission of a Petition may request a personal interview with the Assistant Registrar (or his designee) in order to submit additional evidence relevant to the student's residency classification or to have answered any questions regarding the residency policy or evaluation process. This request must be received by the Residency Classification Office in writing no later than fifteen (15) working days from the date of the Residency Evaluator's written denial of the Petition. Failure to appeal, or reschedule an appeal at least twenty-four (24) hours beforehand, will mean that the petitioner has decided not to appeal. Therefore, the petition will not be reviewed, no secondary decision will be made, and the decision of the Residency Evaluator will be maintained for the remainder of the semester. It is strongly encouraged that the petitioner submit an appeal letter in advance to give the Assistant Registrar a better understanding of the petitioner's specific situation. In some cases, the Associate Registrar will be involved in the decision process.

2. To the Residency Review Committee (RRC): If the decision of the Assistant Registrar for Residency Classification is adverse to the student, a written appeal may be filed with the Residency Review Committee (RRC), 1130 Mitchell Building, College Park, Maryland 20742. Such written appeal must be received by the RRC no later than fifteen (15) working days from the date of the written adverse decision of the Assistant Registrar of the Residency Classification Office, and should present any and all information upon which the appeal is based and of which the student would like the RRC to be aware. Unless otherwise specifically requested by the RRC, information and arguments not presented by the student to the Assistant Registrar of Residency Classification shall not
hereafter be considered on appeal. It is the student's responsibility to provide complete and timely responses to requests for information by the RRC. Failure to do so may result in a denial of the appeal.

D. Requests for Waivers to the President or Designee

A student, who has been denied reclassification following a timely appeal and final decision by the Residency Review Committee, may apply to the President for a waiver of the requirement(s) of the Residency Policy upon which the denial was based. Waivers are discretionary and reserved for those rare and unusual circumstances where in the judgment of the President (or designee) the student does not meet the criteria for in-state tuition billing status but an application of the requirement(s) would create an unjust result. The application to the President shall be in writing and set forth all facts and reasons the student believes supports the request; provided, however, matters not previously presented to the Residency Classification Evaluator and the RRC will not be considered. Requests for a Presidential waiver may only be made in cases where the decision of Residency Evaluator, Assistant Registrar and Residency Review Committee are adverse to the student. Requests for Presidential waivers must be received in the Residency Classifications Office within ten (10) business days from the date of the decision of the RRC. The decision of the President is final.

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Appendix I: Undergraduate Student Grievance Procedure

Approved by the President August 1, 1991

I. Purpose

This procedure provides a means for an undergraduate student to seek redress for acts or omissions of individual faculty members as well as academic departments, programs, colleges, or divisions without fear of reprisal or discrimination.

II. Scope of Grievances: Expectations of Faculty and Academic Units

The scope of the matters which may constitute a grievance under this procedure is limited to believed violations of the expectations of faculty and academic units as set forth below.

A. Faculty - The following are considered to be reasonable expectations of faculty:

1. There shall be a written description at the beginning of each undergraduate course specifying in general terms the content and nature of assignments, examination procedures, and the basis for determining final grades. In cases where all or some of this information cannot be provided at the beginning of the course, a clear explanation of the delay and the basis of course development shall be provided.

2. There shall be reasonable notice of major papers and examinations in the course.

3. There shall be a reasonable number of recitations, performances, quizzes, tests, graded assignments and/or student/instructor conferences to permit evaluation of student progress throughout the course.

4. Unless prohibited by statute or contract, there shall be a reasonable opportunity to review papers and examinations after evaluation by the instructor, while materials are reasonably current.

5. There shall be a reasonable approach to the subject which attempts to make the student aware of the existence of different points of view.

6. There shall be reasonable access to the instructor during announced regular office hours or by appointment.

7. There shall be regular attendance by assigned faculty unless such attendance is prevented by circumstances beyond the control of the faculty member.

8. There shall be reasonable adherence to published campus schedules and location of classes and examinations. Classes not specified in the schedules are to be arranged at a mutually
III. Alternative Grievance Procedures

No other University grievance procedure may be used simultaneously or consecutively with the Undergraduate Student Grievance Procedure with respect to the same or substantially same issue or complaint, or with issues or complaints arising out of or pertaining to the same set of facts.

The procedures of the Human Relations Code and/or any University grievance procedure may not be utilized to challenge the procedures, actions, determinations or recommendations of any person(s) or board(s) acting pursuant to the Undergraduate Student Grievance Procedure.

IV. Limitations

Notwithstanding any provision of this Undergraduate Student Grievance Procedure to the contrary, the following matters do not constitute the basis for a grievance under this policy:

A. Policies, regulations, decisions, resolutions, directives and other acts of the Board of Regents of the University of Maryland System, The Office of the Chancellor of the University of Maryland System, and the Office of the President of the University of Maryland College Park;

B. Any statute, regulation, directive, or order of any department or agency of the United States or the State of Maryland;

C. Any matter outside the control of the University of Maryland System;

D. Course offerings;

E. The staffing and structure of any academic department or unit;

F. The fiscal management and allocation of resources by the University of Maryland System and the University of Maryland at College Park;

G. Any issue(s) or act(s) which does (do) not affect the complaining party directly;
H. Matters of academic judgment relating to an evaluation of a student's academic performance and/or academic qualifications; except that the following matters of a procedural nature may be reviewed under these procedures if filed as a formal grievance within thirty days of the first meeting of the course to which they pertain:

1. Whether reasonable notice has been given as to the relative value of all work considered in determining the final grade and/or assessment of performance in the course. The remedy for a successful grievance based upon this subsection shall be the giving of notice by the instructor.

2. Whether a reasonably sufficient number of examinations, papers, laboratories and/or other academic exercises have been scheduled to present the student with a reasonable opportunity to demonstrate academic merit. The remedy for a successful grievance under this subsection shall be the scheduling of such additional academic exercises as the instructor, in consultation with the department chair or dean, and upon consideration of the written opinion of the divisional hearing board shall deem appropriate.

I. "Class" grievances are not cognizable under these procedures. A screening or hearing board may, in its discretion consolidate grievances presenting similar facts and issues, and recommend generally applicable relief as it deems warranted;

J. There may be no challenge to the award of a specific grade under these procedures.

V. Finality

Any student who elects to use the Undergraduate Student Grievance Procedure agrees to abide by the final disposition arrived thereunder, and shall not subject this disposition to review under any other procedure within the University of Maryland System. For the purpose of this limitation, a student shall be deemed to have elected to utilize the Undergraduate Student Grievance Procedures at the time a written grievance is filed.

VI. Procedure for Grievance Involving Faculty Member or Academic Unit

A. Informal Resolution

The initial effort in all cases shall be toward achieving a resolution of the grievance through the following informal means:

1. Grievance Against an Individual Faculty Member:
The student should first contact the faculty member, present the grievance in its entirety, and attempt a complete resolution. If all or part of the grievance remains unresolved, the student may present the grievance to the immediate administrative supervisor of the faculty member. A student may present a grievance directly to the instructor’s supervisor if the instructor is not reasonably available to discuss the matter. The supervisor shall attempt to mediate the dispute, and if a mutually acceptable resolution is reached, the case shall be closed.

2. Grievance Against an Academic Department:
The student should contact the department head, director, or dean and present the grievance in its entirety. The department head, director, or dean shall attempt a complete resolution of the dispute.
B. Formal Resolution: Divisional Screening Board

A student who has attempted informal resolution, and remains dissatisfied may obtain a formal resolution of a grievance pursuant to the following procedure:

1. The student shall file a written grievance with the Screening Board for Academic Grievances of the Division (hereinafter referred to as the divisional screening board).

2. The writing shall contain:
   - the act, omission, or matter which is the subject of the complaint;
   - all facts the student believes are relevant to the grievance;
   - the resolution sought;
   - all arguments in support of the desired solution.

3. A grievance must be filed in a timely manner or it will not be considered. In order to be timely, a grievance must be received by the appropriate divisional screening board within thirty days of the act, omission or matter which constitutes the basis of the grievance, or within thirty days of the date the student is first placed upon reasonable notice thereof, whichever occurs first. It is the responsibility of the student to insure timely filing.

4. The divisional screening board shall immediately notify an instructor or academic unit head of the a timely grievance. A copy of the grievance and all relevant material shall be provided.

5. The instructor or academic unit head shall make a complete written response to the divisional screening board within ten days of receipt of a grievance. In cases where a grievance is received within ten days of the final day of classes, a response is due within ten days of the beginning of the next semester in which the faculty member is working on campus. This extension is not available to persons whose appointments terminate on or before the last day of the semester in which the grievance is filed.

6. A copy of the faculty member’s response shall be sent by the divisional screening board to the student filing the grievance.

7. The divisional screening board may request further written information from either party.

8. The divisional screening board shall review the case to determine if a formal hearing is warranted. All or part of a grievance shall be dismissed if the divisional screening board concludes the grievance is:
   - untimely,
   - based upon a non-grievable matter,
   - being concurrently reviewed in another forum,
   - previously decided pursuant to this or any other review procedure,
   - frivolous or filed in bad faith.

All or part of a grievance may be dismissed if the divisional screening board concludes in its discretion that the grievance is:

- insufficiently supported,
- premature,
- otherwise inappropriate or unnecessary to present to the divisional hearing board.
The divisional screening board shall meet to review grievances in private. A decision to dismiss a grievance requires a majority vote of at least three members.

If a grievance is dismissed in whole or in part, the student filing the grievance shall be so informed, and shall be given a concise written statement of the basis for the dismissal.

A decision to dismiss a grievance is final and is not subject to appeal.

9. If the divisional screening board determines a grievance to be appropriate for a hearing, the dean shall be informed. The dean shall convene a divisional hearing board within fifteen days thereafter. The time may be extended for good cause at the discretion of the dean.

C. Divisional Hearing Board

The following rules apply to the conduct of a hearing by the divisional hearing board:

1. Reasonable notice of the time and place of the hearing shall be provided to both parties. Notice shall include a brief statement of the allegations and the remedy sought by the student. Hearings shall be held on campus.

2. A record of the hearing, including all exhibits shall be kept by the chairperson of the screening board. All documents and materials filed with the divisional screening board shall be forwarded to the divisional hearing board, and shall become apart of the record.

3. Hearings are closed to the public unless a public hearing is specifically requested by both parties.

4. Presentation of Evidence

Each party shall have the opportunity to make an opening statement, present written evidence, present witnesses, cross-examine witnesses, offer personal testimony, and such other material as is relevant.

Incompetent, irrelevant, immaterial and unduly repetitious evidence may be excluded by the chairperson of the hearing board.

It is the responsibility of each party to have their witnesses available and to be completely prepared at the time of the hearing. The student shall present the case first, and the faculty member shall respond.

Upon completion of the presentation of all evidence, both parties shall be given the opportunity to present oral arguments and make closing statements within the time limits set by the chairperson of the hearing board.

Upon the request of either party, all persons to be called as witnesses shall be sequestered.

Each party may be assisted in the presentation of the case by a student or faculty member of his/her choice.

It is the responsibility of the chairperson of the hearing board to manage the hearing, and to decide all questions relating to the presentation of evidence and appropriate procedure, and the chairperson is the final authority in such matters except as established herein. The chairperson may seek the advice of UMCP
counsel

The hearing board shall have the right to examine any person or party testifying before it, and on its own motion, may request the presence of any person for the purpose of testifying and the production of evidence.

5. The above enumerated procedures and powers of the divisional hearing board are non-exclusive. The chairperson may take any such action as is reasonably necessary to facilitate the orderly and fair conduct of the hearing which is not inconsistent with the procedures set forth herein.

6. Upon completion of the hearing, the hearing board shall meet privately to consider the validity of the grievance. The burden of proof rests with the student to show by a preponderance of the evidence that a substantial departure from the expectations set forth in section "B" above has occurred, and that has operated to the actual prejudice and injury of the student.

A decision upholding a grievance shall require the majority vote of at least three members of the divisional hearing board.

A decision of the hearing board shall address only the validity of the grievance. The decision shall be forwarded to the dean in written opinion. In the event the decision is in whole or in part favorable to the student, the hearing board may submit an informal recommendation concerning relief believed to be warranted based upon the facts presented at the hearing.

7. The dean shall immediately, upon receipt of the written opinion, forward copies to the student and the faculty member or head of academic unit. Each party has ten days from the date of receipt to file a written appeal with the dean.

8. Appeals

The appeal shall be in writing and set forth in complete detail the grounds for the appeal.

A copy of the appeal shall be sent to the opposing party, who shall have ten days following receipt to respond in writing to the dean.

The sole grounds for appeal shall be:

- a substantial prejudicial procedural error committed in the conduct of the hearing in violation of the procedures established herein. Discretionary decisions of the chairperson shall not constitute the basis of an appeal.
- the existence of new and relevant evidence of a significant nature which was not reasonably available at the time of hearing.

9. In the absence of a timely appeal, or following receipt and consideration of all timely appeals, the dean may:

- dismiss the grievance, grant such redress as is believed appropriate,
- reconvene the divisional hearing board to rehear the grievance in part or whole and/or to hear new evidence,
- convene a new divisional hearing board to rehear the case in its entirety.
10. The dean shall inform all parties of the decision in writing and the grievance shall thereafter be concluded. The decision of the dean shall be final and binding, and not subject to review or appeal.

In non-departmental colleges, the Dean for Undergraduate Studies shall assume the duties of the dean for purposes of this procedure.

VII. Grievance Procedures Against the Dean for Office of Undergraduate Studies

A. Informal Resolution

The initial effort in all cases shall be to achieve resolution of the grievance through informal means.

1. The student should first contact the administrative dean, present the grievance in its entirety, and attempt a complete resolution.

2. If any portion of the grievance remains unresolved, the student may present such part to the Vice President for Academic Affairs. A grievance may be initially presented to the Vice President for Academic Affairs if the dean is not reasonably available to discuss the matter.

3. The Vice President shall attempt to mediate the dispute. Should a mutually acceptable resolution be reached, the case shall be closed.

B. Formal Resolution

Should a student remain dissatisfied with the disposition of the grievance following attempts at informal resolution, a formal resolution may be obtained pursuant to the following procedure:

1. The student shall file with the President a timely written grievance.

2. The writing shall contain:

   - the act, omission or matter which is the subject of the complaint,
   - all facts the student believes to be relevant to the grievance, 
   - the resolution sought, 
   - all arguments upon which the student relies in seeking such resolution.

3. No grievance will be considered unless it is timely.

In order to be timely, a grievance must be received by the President within thirty days of the act, omission or matter which is the basis for the grievance, or within thirty days of the date the student is first placed upon reasonable notice thereof, whichever is later.

It is the responsibility of the student to ensure timely filing of the grievance.

4. Upon receipt of a timely grievance, the President shall forward the grievance to a divisional screening board of a division other
than the one from which the grievance has arisen.

The divisional screening board shall immediately notify the administrative dean against whom the grievance has been filed and provide a copy of the grievance and all relevant materials.

5. The administrative dean against whom the grievance has been filed shall respond in writing to the divisional screening board within ten days. In the event the grievance is received by the administrative dean after the last day of classes of a semester, the time for written response shall be ten days after the first day of classes of the semester immediately following.

A copy of the response from the administrative dean shall be sent to the student.

6. In its discretion, the divisional screening board may request further written submissions from the student and/or the administrative dean.

7. The divisional screening board shall review and act upon a grievance against an administrative dean in the same manner and according to the same requirements as for the review of grievances against faculty members, academic departments, programs and colleges set forth in this procedure.

8. If the divisional hearing board determines that a grievance is appropriate for a hearing, the President shall be so informed. The President shall convene a campus hearing board within fifteen days to hear the grievance. This time may be extended for good cause at the discretion of the President.

9. The campus hearing board shall conduct a hearing in accordance with the rules established in this procedure for the conduct of hearings by divisional hearing boards.

Upon completion of a hearing, the campus hearing board shall meet privately to consider the grievance in the same manner and according to the same rules as set forth for the consideration of grievances by divisional hearing boards, except that the decision shall be forwarded to the President.

In the event the campus hearing board decides in whole or on part in favor of the student, it may submit an informal recommendation to the President with respect to such relief as it may believe is warranted by the facts as proven in the hearing.

10. The President shall immediately, upon receipt of the written opinion, forward copies to the student and the administrative dean. Each party shall have ten days from the date of receipt to file an appeal with the President.

11. Appeal

Each party has ten days from receipt of the written decision to file an appeal with the President.

The grounds for an appeal shall be the same as those set forth in this procedure for appealing a decision of a divisional hearing board.

The appeal shall be in writing, and set forth in complete detail the grounds relied upon. A copy of the appeal shall be sent to the opposite party, who shall have ten days following receipt to file a written response with the President.

12. In the absence of a timely appeal, or following receipt and consideration of all timely appeals and responses, the President
...may:

- dismiss the grievance
- grant such redress as is believed appropriate.
- reconvene the campus hearing board to rehearse the grievance in whole or in part and/or review new evidence
- convene a new campus hearing board to rehear the case in its entirety.

13. The President shall inform all parties of the decision in writing, and the grievance shall be thereafter concluded. The decision of the President is final and binding, and is not subject to appeal or review.

VIII. Composition of Screening and Hearing Boards

The following procedures are directives only, and for the benefit and guidance of deans and the President in the selection and establishment of divisional and campus hearing boards. The selection and establishment of a board is not subject to challenge by a party, except that at the start of a hearing, a party may challenge for good cause a member or members of the hearing board before whom the party is appearing. The chairperson of the hearing board shall consider the challenge and may replace any member where it is believed necessary to achieve an impartial hearing and decision.

A. Divisional Screening Boards for Academic Grievances

1. Prior to the beginning of each academic year, the divisional council of each division shall choose at least fifteen faculty members and fifteen students to be eligible to serve on boards considering academic grievances from that division. Concurrently, it shall choose three other faculty members to be eligible to serve on boards considering academic grievances for the Administrative Dean for Office of Undergraduate Studies. The names shall be forwarded to the Administrative Dean.

2. Prior to the beginning of each academic year, the Administrative Council of the Administrative Dean for Office of Undergraduate Studies shall choose at least fifteen students to be eligible to serve on a screening board to review grievances arising within academic units under the administration of the Administrative Dean for Office of Undergraduate Studies. These names shall be forwarded to the Administrative Dean.

B. Establishment of Screening Boards

1. Upon receipt of the names of the designated faculty and students, the dean shall appoint a five-member divisional screening board. The screening board shall consist of three faculty members and two students, and each shall serve for the academic year or until a new board is appointed by the dean, whichever occurs later. The dean shall also designate two alternate faculty members and two alternate students from the names presented by the divisional council.

   The dean shall designate one of the faculty members to be the chairperson of the divisional screening board.

   Members of the divisional screening board shall not serve on a divisional hearing during the same year, except that the alternate members may serve on a hearing board other than one considering a case in which the member has previously been involved in the screening process.
A member of the divisional screening board shall not review an grievance arising out of his/her own department or program, in such instance, an alternate member shall serve.

2. Upon receipt of the names of the faculty members designated by each divisional council and students designated by the administrative council, the Administrative Dean for Office of Undergraduate Studies shall appoint a five member screening board to review grievances arising within the academic units under his/her administration.

C. Divisional Hearing Boards for Academic Grievances

For each grievance referred by the divisional screening board, the dean shall appoint a five-member divisional hearing board.

The divisional hearing board shall be composed of three faculty members and two students selected by the dean from among those names previously designated by the divisional screening board. The dean shall designate one faculty member as chairperson.

No faculty member or student shall be appointed to hear a grievance arising out of his/her own department or program.

The Administrative Dean for Office of Undergraduate Studies shall appoint in the same manner, a hearing board to hear each grievance referred by the screening board reviewing grievances arising from the academic units under his/her administration. The members of the hearing board shall be selected from among those names previously forwarded to the Administrative Dean for Office of Undergraduate Studies by the divisional councils and from those who have not been appointed to the screening board.

D. Campus Hearing Board for Academic Grievances

For each case referred by a divisional hearing board to the President for a hearing, the President shall appoint a five-member campus hearing board. The campus hearing board shall be composed of three faculty members and two students selected by the President from among those names designated by the divisional councils and remaining after the establishment of screening boards.

The President shall designate one faculty member as chairperson.

No faculty member or student shall be appointed to hear a grievance arising out of his/her own division or administrative unit.

IX. Definitions

A. Day refers to days of the academic calendar, not including Saturdays, Sundays, or holidays observed by UMCP.

B. Party refers to the student and the individual faculty member or head of the academic unit against whom the grievance is made.
Appendix J: Procedures for Review of Alleged Arbitrary and Capricious Grading

Approved by President
December 4, 1990

I. Purpose

The following procedures are designed to provide a means for undergraduate students to seek review of final course grades alleged to be arbitrary and capricious. Before filing a formal appeal, students are urged to resolve grievances informally with the instructor and/or the administrator of the academic unit offering the course. Students who file a written appeal under the following procedures shall be expected to abide by the final disposition of the appeal, as provided in Paragraph E, below, and shall be precluded from seeking review of the matter under any other procedure within the University.

II. Definitions

When used in these procedures

A. The term "arbitrary and capricious" grading means:

1. the assignment of a course grade to a student on some basis other than performance in the course; or,

2. the assignment of a course grade to a student by resorting to unreasonable standards different from those which were applied to other students in that course; or,

3. the assignment of a course grade by a substantial, unreasonable and unannounced departure from the instructor's previously articulated standards.

B. The words "day" or "days" refer to normal working days at the University, excluding Saturdays, Sundays and University holidays.

C. The word "administrator" is defined as the administrative head of the academic unit offering the course.

III. Procedures

A. A student who believes his/her final grade in a course is improper and the result of arbitrary and capricious grading should first confer promptly with the instructor of the course. If the instructor has left the University, is on approved leave, or cannot be reached by the student after a reasonable effort, the student shall consult with the administrator. If the student and the instructor or administrator are unable to arrive at a mutually agreeable solution, the student may file an appeal within twenty days after the first day of instruction of the next semester (excluding summer terms) to a standing committee consisting of three tenured faculty members of the academic unit offering the course. If the instructor of the course is a member of the committee, that instructor shall be disqualified and replaced by a tenured faculty member selected by the
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B. The student shall file an appeal by submitting to the committee a written statement detailing the basis for the allegation that a grade was improper and the result of arbitrary and capricious grading, and presenting relevant evidence. The appeal shall be dismissed if:

1. the student has submitted the same, or substantially the same complaint to any other formal grievance procedure; or,

2. the allegations, even if true, would not constitute arbitrary and capricious grading;

3. the appeal was not timely; or,

4. the student has not conferred with the instructor or with the instructor's immediate administrative supervisor, in accordance with Paragraph A of these procedures.

C. If the appeal is not dismissed, the committee shall submit a copy of the student's written statement to the instructor with a request for a prompt written reply. If it then appears that the dispute may be resolved without recourse to the procedures specified in Paragraph D, below, the committee will attempt to arrange a mutually agreeable solution.

D. If a mutually agreeable solution is not achieved, the committee shall proceed to hold an informal, non-adversarial fact-finding meeting concerning the allegations. Both the student and the instructor shall be entitled to be present throughout this meeting and to present any relevant evidence, except that the student shall not be present during the discussion of any other student. Neither the student nor the faculty member shall be accompanied by an advocate or representative. The meeting shall not be open to the public.

E. The committee shall deliberate privately at the close of the fact finding meeting. If a majority of the committee finds the allegation supported by clear and convincing evidence, the committee shall take any action which they feel would bring about substantial justice, including, but not limited to:

1. directing the instructor to grade the student's work anew; or

2. directing the instructor to administer a new final examination or paper in the course; or

3. directing the cancellation of the student's registration in the course; or

4. directing the award of a grade of "pass" in the course, except that such a remedy should be used only if no other reasonable alternative is available. The committee is not authorized to award a letter grade or to reprimand or otherwise take disciplinary action against the instructor. The decision of the committee shall be final and shall be promptly reported in writing to the parties. The administrator of the academic unit shall be responsible for implementing the decision of the committee.

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Appendix K: Policy on Participation by Students in Class Exercises That Involve Animals

Students who are concerned about the use of animals in teaching have the responsibility to contact the instructor, prior to course enrollment, to determine whether animals are to be used in the course, whether class exercises involving animals are optional or required and what alternatives, if any, are available. If no alternatives are available, the refusal to participate in required activities involving animals may result in a failing grade in the course. Departments including courses where animals are used must actively inform students of such courses, including, but not limited to, notices in the Catalog.

The University of Maryland, College Park campus, affirms the right of the faculty to determine course content and curriculum requirements. The University, however, also encourages faculty to consider offering alternatives to the use of animals in their courses. In each course, the instructor determines whether the use of animals in the classroom exercises will be a course requirement or optional activity. The following departments have courses that may require animals to be used in class activities: Animal and Avian Sciences, Cell Biology and Molecular Genetics, Psychology, Veterinary Medicine, Biology, and courses with the NFSC prefix.

Committee on Academic Procedures and Standards
April 27, 1990
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Students whose registration at the University of Maryland, College Park, has lapsed for more than 10 years shall be required to complete a minimum of 15 credit hours at College Park after their return to campus in order to earn a baccalaureate degree.

Recommendations about courses needed to satisfy the remaining degree requirements will be made at the department level, with approval of the Dean's Office required. The reason for requiring these credits is that many fields change sufficiently in 10 years to require that students take current courses if they are to be awarded a current degree. Exceptions to the requirement for a minimum of 15 credits earned at College Park upon return to the campus can be recommended by the Deans for approval in the Office of the Vice President for Academic Affairs.

College Park Senate
October 1995
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Appendix M: Required Disclosure of University Procedure on the Collection, Use and Protection of Student Social Security Numbers (SSN)

Section 15-110 of the Education Article of the Annotated Code of Maryland prohibits the use of SSN on University identification cards. Section 7(b) of the Privacy Act of 1974 (5 U.S.C. 522a) and section 10-624 of the State Government Article of the Annotated Code of Maryland, also require that when any Federal, State, or local government agency requests an individual to disclose his or her Social Security Number (SSN), that individual must also be advised whether the disclosure is mandatory or voluntary, by what statutory or other authority the number is solicited, what use will be made of it, the specific consequences for failure to provide the information, whether the information is generally available for public inspection and whether the information is made available or transferred to or shared with any entity other than the University.

Accordingly, each applicant for admission is advised that disclosure of his or her SSN is required as a condition for making application to the University of Maryland for purposes of administering federal financial aid programs and complying with various State and Federal reporting requirements including reporting to the IRS. The University may use a student's SSN to accurately report federally required data, to generate various federal tax and financial aid reports, and to ensure the accuracy of student data that is exchanged within the University of Maryland, between post-secondary education institutions, with the University System of Maryland and other outside entities as necessary or required for the conduct of legitimate University business and consistent with applicable law. The SSN will be maintained in a secure and confidential manner and not be re-disclosed for any other purpose.

The authority for requesting disclosure of a student's SSN is grounded in various federal laws including but not limited to: 42 USC 405c, affecting wage reporting and withholdings; 34 CFR 668.14 and 34 CFR 668.16, relating to student aid programs; and 26 CFR 1.6050S-1, addressing Internal Revenue Code reporting requirements pertaining to tuition payments.

In addition, it should be noted that the SSN of a parent, guardian or spouse of an applicant is also requested if the student claims dependency on that person for financial aid or residency for tuition purposes. A parent, guardian or spouse is advised that disclosure of his or her SSN is necessary for the above student purpose and failure to provide it may affect the student’s financial aid or tuition status. A parent’s, guardian’s or spouse’s SSN will only be used for the purpose for which it was collected and will not be maintained in any other system of records.

A unique U ID Number is assigned to students as part of their initial enrollment and is used for all University identification purposes.

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Subtitle 06 GENERAL EDUCATION AND TRANSFER
Chapter 01 PUBLIC INSTITUTIONS OF HIGHER EDUCATION
Authority: Education Article, 11-201 - 11-206, Annotated Code of Maryland.

01. Scope and Applicability.

This chapter applies only to public institutions of higher education.

02. Definitions.

A. In this chapter, the following terms have the meanings indicated. B. Terms defined.

(1) "A.A. degree" means the Associate of Arts degree.

(2) "A.A.S. degree" means the Associate of Applied Sciences degree.

(3) "Arts" means courses that examine aesthetics and the development of the aesthetic form and explore the relationship between theory and practice. Courses in this area may include fine, performing and studio art, appreciation of the arts, and history of the arts.

(4) "A.S. degree" means the Associate of Sciences degree.

(5) "Biological and physical sciences" means courses that examine living systems and the physical universe. They introduce students to the variety of methods used to collect, interpret, and apply scientific data, and to an understanding of the relationship between scientific theory and application.

(6) "English composition courses" means courses that provide students with communication knowledge and skills appropriate to various writing situations, including intellectual inquiry and academic research.

(7) "General education" means the foundation of the higher education curriculum providing a coherent intellectual experience for all students.

(8) "General education program" means a program that is designed to:

(a) Introduce undergraduates to the fundamental knowledge, skills, and values that are essential to the study of academic disciplines;

(b) Encourage the pursuit of life-long learning; and

(c) Foster the development of educated members of the community and the world.
(9) "Humanities" means courses that examine the values and cultural heritage that establish the framework for inquiry into the meaning of life. Courses in the humanities may include the language, history, literature, and philosophy of Western and other cultures.

(10) "Mathematics" means courses that provide students with numerical, analytical, statistical and problem-solving skills.

(11) "Native student" means a student whose initial college enrollment was at a given institution of higher education and who has not transferred to another institution of higher education since that initial enrollment.

(12) "Parallel program" means the program of study or courses at one institution of higher education which has comparable objectives as those at another higher education institution, for example, a transfer program in psychology in a community college is definable as a parallel program to a baccalaureate psychology program at a 4-year institution of higher education.

(13) "Receiving institution" means the institution of higher education at which a transfer student currently desires to enroll.

(14) "Recommended transfer program" means a planned program of courses, both general education and courses in the major, taken at a community college, which is applicable to a baccalaureate program at a receiving institution and ordinarily the first 2 years of the baccalaureate degree.

(15) "Sending institution" means the institution of higher education of most recent previous enrollment by a transfer student at which transferable academic credit was earned.

(16) "Social and behavioral sciences" means courses that examine the psychology of individuals and the ways in which individuals, groups, or segments of society behave, function, and influence one another. The courses include, but are not limited to, subjects which focus on:

(a) History and cultural diversity;
(b) Concepts of groups, work, and political systems;
(c) Applications of qualitative and quantitative data to social issues; and
(d) Interdependence of individuals, society, and the physical environment.

(17) "Transfer student" means a student entering an institution for the first time having successfully completed a minimum of 12 semester hours at another institution which is applicable for credit at the institution the student is entering.

03. General Education Requirements for Public Institutions.

A. While public institutions have the autonomy to design their general education program to meet their unique needs and mission, that program shall conform to the definitions and common standards in this chapter. A public institution shall satisfy the general education requirement by:

(1) Requiring each program leading to the A.A. or A.S. degree to include not less than 30 and no more than 36 semester hours and each baccalaureate degree program to include not less than 40 and no more than 46 semester hours of required core courses, with the core requiring, at a minimum, coursework in each of the following five areas:
(a) Arts and Humanities  
(b) Social and Behavioral Sciences  
(c) Biological and Physical Sciences  
(d) Mathematics and  
(e) English Composition

(2) Conforming with COMAR 13B.02.16D(2)(b)-(c). B. Each core course used to satisfy the distribution requirements of (1) of this regulation shall carry at least 3 semester hours.

C. General education programs of public institutions shall require at least:

(1) one course in each of two disciplines in arts and humanities;  
(2) one course in each of two disciplines in social and behavioral sciences;  
(3) two science courses, at least one of which shall be a laboratory course;  
(4) one course in mathematics at or above the level of college algebra; and  
(5) one course in English composition.

D. Interdisciplinary and Emerging Issues.

(1) In addition to the five required areas in §A of this regulation, a public institution may include up to 8 semester hours in a sixth category that addresses emerging issues that institutions have identified as essential to a full program of general education for their students. These courses may:

(a) be integrated into other general education courses or may be presented as separate courses; and  
(b) include courses that:

(i) provide an interdisciplinary examination of issue across the five areas, or  
(ii) address other categories of knowledge, skills, and values that lie outside of the five areas.

(2) Public institutions may not include the courses in this section in a general education program unless they provide academic content and rigor equivalent to the areas in §A(1) of this regulation.

E. General education programs leading to the A.A.S. degree shall include at least 20 semester hours from the same course list designated by the sending institution for the A.A. and A.S. degrees. The A.A.S. degree shall include at least one 3-semester-hour course from each of the five areas listed in §(A)(1) of this regulation.

F. A course in a discipline listed in more than one of the areas of general education may be applied only to one area of general education.

G. A public institution may allow a speech communication or foreign language course to be part of the arts and humanities category.

H. Composition and literature courses may be placed in the arts and humanities area if literature is included as part of the content of the course.

I. Public institutions may not include physical education skills courses as part of the general education requirements.

J. General education courses shall reflect current scholarship in the discipline and
provide reference to theoretical frameworks and methods of inquiry appropriate to academic disciplines.

K. Courses that are theoretical may include applications, but all applications courses shall include theoretical components if they are to be included as meeting general education requirements.

L. Public institutions may incorporate knowledge and skills involving the use of quantitative data, effective writing, information retrieval, and information literacy when possible in the general education program.

M. Notwithstanding §A(1) of this regulation, a public 4-year institution may require 48 semester hours of required core courses if courses upon which the institution's curriculum is based carry 4 semester hours.

N. Public institutions shall develop systems to ensure that courses approved for inclusion on the list of general education courses are designed and assessed to comply with the requirements of this chapter.

**04. Transfer of General Education Credit.**

A. A student transferring to one public institution from another public institution shall receive general education credit for work completed at the student's sending institution as provided by this chapter.

B. A completed general education program shall transfer without further review or approval by the receiving institution and without the need for a course-by-course match.

C. Courses that are defined as general education by one institution shall transfer as general education even if the receiving institution does not have that specific course or has not designated that course as general education.

D. The receiving institution shall give lower-division general education credits to a transferring student who has taken any part of the lower-division general education credits described in Regulation .03 of this chapter at a public institution for any general education courses successfully completed at the sending institution.

E. Except as provided in Regulation .03M of this chapter, a receiving institution may not require a transfer student who has completed the requisite number of general education credits at any public college or university to take, as a condition of graduation, more than 16 additional semester hours of general education and specific courses required of all students at the receiving institution, with the total number not to exceed 46 semester hours. This provision does not relieve students of the obligation to complete specific academic program requirements or course prerequisites required by a receiving institution.

F. Each sending institution shall designate on or with the student transcript those courses that have met its general education requirements as well as indicate whether the student has completed the general education program.

G. A.A.S. Degrees.

(1) While there may be variance in the numbers of hours of general education required for A.A., A.S., and A.A.S. degrees at a given institution, the courses identified as meeting general education requirements for all degrees shall come from the same general education course list and exclude technical or career courses.

(2) An A.A.S. student who transfers into a receiving institution with fewer than the total number of general education credits as designated by the receiving institution shall complete the difference in credits according to the distribution as designated by the receiving institution. Except as provided in 03M, the total general education credits for baccalaureate degree granting public
receiving institutions shall not exceed 46 semester hours.

H. Student responsibilities. A student is held

(1) Accountable for the loss of credits that:

(a) result from changes in the individual's selection of the major program of study
(b) were earned for remedial coursework; or
(c) exceed the total course credits accepted in transfer as allowed by this chapter and

(2) responsible for meeting all requirements of the academic program of the receiving institution.

.05 Transfer of Nongeneral Education Program Credit.

A. Transfer to Another Public Institution.

(1) Credit earned at any public institution in the State is transferable to any other public institution if the

(a) credit is from a college or university parallel course or program
(b) grades in the block of courses transferred average 2.0 or higher and
(c) acceptance of the credit is consistent with the policies of the receiving institution governing native students following the same program.

(2) If a native student's "D" grade in a specific course is acceptable in a program, then a "D" earned by a transfer student in the same course at a sending institution is also acceptable in the program. Conversely, if a native student is required to earn a grade of "C" or better in a required course, the transfer student shall also be required to earn a grade of "C" or better to meet the same requirement.

B. Credit earned in or transferred from a community college is limited to

(1) 1/2 the baccalaureate degree program requirement, but may not be more than 70 semester hours; and
(2) The first 2 years of the undergraduate education experience.

C. Nontraditional Credit.

(1) The assignment of credit for AP, CLEP, or other nationally recognized standardized examination scores presented by transfer students is determined according to the same standards that apply to native students in the receiving institution, and the assignment shall be consistent with the State minimum requirements.

(2) Transfer of credit from the following areas shall be consistent with COMAR 13B.02.02. and shall be evaluated by the receiving institution on a course by-course basis:

(a) technical courses from career programs
(b) course credit awarded through articulation agreements with other segments or agencies
(c) credit awarded for clinical practice or cooperative education experiences and
(d) credit awarded for life and work experiences.
(3) The basis for the awarding of the credit shall be indicated on the student's transcript by the receiving institution.

(4) The receiving institution shall inform a transfer student of the procedures for validation of course work for which there is no clear equivalency. Examples of validation procedures include ACE recommendations, portfolio assessment, credit through challenge, examinations, and satisfactory completion of the next course in sequence in the academic area.

(5) The receiving baccalaureate degree-granting institution shall use validation procedures when a transferring student successfully completes a course at the lower division level that the receiving institution offers at the upper division level. The validated credits earned for the course shall be substituted for the upper division course.

D. Program Articulation.

(1) Recommended transfer programs shall be developed through consultation between the sending and receiving institutions. A recommended transfer program represents an agreement between the two institutions that allows students aspiring to the baccalaureate degree to plan their programs. These programs constitute freshman/sophomore level coursework to be taken at the community college in fulfillment of the receiving institution's lower division coursework requirement.

(2) Recommended transfer programs in effect at the time that this regulation takes effect, which conform to this chapter, may be retained.

.06 Academic Success and General Well-Being of Transfer Students.

A. Sending Institutions.

(1) Community colleges shall encourage their students to complete the Associate degree or to complete 56 hours in a recommended transfer program which includes both general education courses and courses applicable toward the program at the receiving institution.

(2) Community college students are encouraged to choose as early as possible the institution and program into which they expect to transfer.

(3) The sending institution shall:

   (a) Provide to community college students information about the specific transferability of courses at 4-year colleges.
   (b) Transmit information about transfer students who are capable of honors work or independent study to the receiving institution and
   (c) Promptly supply the receiving institution with all the required documents provided the student has met all financial and other obligations of the sending institution for transfer.

B. Receiving Institutions.

(1) Admission requirements and curriculum prerequisites shall be stated explicitly in institutional publications.

(2) The receiving institution shall admit transfer students from
newly established public colleges that are functioning with the approval of the Maryland Higher Education Commission on the same basis as applicants from regionally accredited colleges.

(3) The receiving institution shall evaluate the transcripts of degree seeking transfer students as expeditiously as possible and notify students of the results no later than mid-semester of the students' first semester of enrollment at the receiving institution provided that all official transcripts have been received at least 15 working days before mid-semester. The receiving institution shall inform students of which courses are acceptable for transfer credit and which of those are applicable to the student's intended program of study.

(4) The receiving institution shall give transfer students the option of satisfying institutional graduation requirements that were in effect at the receiving institution at the time the student enrolled as a freshman at the sending institution. In the case of major requirements, a transfer student may satisfy the major requirements in effect at the time when the student was identifiable as pursuing the recommended transfer program at the sending institution. These conditions are applicable to the student who has been continuously enrolled at the sending institution.

.07 Programmatic Currency.

A. Receiving institutions shall provide to the community college current and accurate information on recommended transfer programs and the transferability status of courses. Community college students shall have access to this information.

B. Recommended transfer programs shall be developed with each community college whenever new baccalaureate programs are approved by the degree-granting institution.

C. When considering curricular changes, institutions shall notify each other of the proposed changes that might affect transfer students. An appropriate mechanism shall be created to ensure that both 2-and 4-year public colleges provide input or comments to the institution proposing the change. Sufficient lead time shall be provided to affect the change with minimum disruption. Transfer students are not required to repeat equivalent coursework successfully completed at the community college.

.08 Transfer Mediation Committee.

A. There shall be a Transfer Mediation Committee, which shall be representative of the public 4-year colleges and universities and the community colleges.

B. Sending and receiving institutions that disagree on the interpretation of the transfer of general education courses as defined by this chapter shall submit their disagreements to the Transfer Mediation Committee. The Transfer Mediation Committee shall also address questions raised by any institutions about the acceptability of new general education courses. As appropriate, the Committee shall consult with faculty on curricular issues.

C. The findings of the Transfer Mediation Committee shall be considered binding on both parties.

.09 Appeal Process.

A. Notice of Denial of Transfer Credit by the Receiving Institution.

(1) Except as provided in §A(2) of this Regulation, the receiving
institution shall inform a transfer student in writing of the denial of transfer credit not later than mid-semester of the transfer student's first semester provided that all official transcripts have been received at least 15 working days before mid-semester.

(2) If transcripts are submitted after 15 working days before midsemester of the student's first semester, the receiving institution shall inform the student of credit denied within 20 working days of receipt of the official transcript.

(3) The receiving institution shall include in the notice of denial of transfer credit (a) a statement of the student's right to appeal and (b) a notification that the appeal process is available in the institution's catalog.

(4) The statement of the student's right to appeal the denial shall include notice of the time limitations in §B of this regulation.

B. A student believing that the receiving institution has denied the student transfer credits in violation of this chapter may initiate an appeal by contacting the receiving institution's Transfer Coordinator or other responsible official of the receiving institution within 20 working days of receiving notice of the denial of credit.

C. Response by Receiving Institution

(1) A receiving institution shall

(a) establish expeditious and simplified procedures governing the appeal of a denial of transfer of credit and
(b) respond to a student's appeal within 10 working days.

(2) An institution may either grant or deny an appeal. The institution's reasons for denying the appeal shall be consistent with this chapter and conveyed to the student in written form.

(3) Unless a student appeals to the sending institution, the writing decision in §C(2) of this regulation constitutes the receiving institution's final decision and is not subject to appeal.

D. Appeal to Sending Institution.

(1) If a student has been denied transfer credit after an appeal to the receiving institution, the student may request the sending institution to intercede on the student's behalf by contacting the transfer coordinator of the sending institution.

(2) A student shall make an appeal to the sending institution within 10 working days of having received the decision of the receiving institution.

E. Consultation Between Sending and Receiving Institutions.

(1) Representatives of the two institutions shall have 15 working days to resolve the issues involved in an appeal.

(2) As a result of a consultation in this section, the receiving institution may affirm, modify, or reverse its earlier decision.

(3) The receiving institution shall inform a student in writing of the result of the consultation.

(4) The decision arising out of a consultation constitutes the final decision of the receiving institution and is not subject to appeal.

.10 Periodic Review.
A. Report by Receiving Institution.

(1) A receiving institution shall report annually the progress of students who transfer from two-year and four-year institutions within the State to each community college and to the Secretary of the Maryland Higher Education Commission.
(2) An annual report shall include ongoing reports on the subsequent academic success of enrolled transfer students, including graduation rates, by major subject areas.
(3) A receiving institution shall include in the reports comparable information on the progress of native students.

B. Transfer Coordinator. A public institution of higher education shall designate a transfer coordinator, who serves as a resource person to transfer students at either the sending or receiving campus. The transfer coordinator is responsible for overseeing the application of the policies and procedures outlined in this chapter and interpreting transfer policies to the individual student and to the institution.

C. The Maryland Higher Education Commission shall establish a permanent Student Transfer Advisory Committee that meets regularly to review transfer issues and recommend policy changes as needed. The Student Transfer Advisory Committee shall address issues of interpretation and implementation of this chapter.

Administrative History
Effective date: December 4, 1995 (22:24 Md. R. 1901)
Regulations .02, .03, and .05 amended. Effective date: July 1, 1996 (23:13 Md. R. 946)
Appendix O: Code of Academic Integrity

Introduction

The University is an academic community. Its fundamental purpose is the pursuit of knowledge. Like all other communities, the University can function properly only if its members adhere to clearly established goals and values. Essential to the fundamental purpose of the University is the commitment to the principles of truth and academic honesty. Accordingly, the Code of Academic Integrity is designed to ensure that the principle of academic honesty is upheld. While all members of the University share this responsibility, the Code of Academic Integrity is designed so that special responsibility for upholding the principle of academic honesty lies with the students.

Definitions

1. ACADEMIC DISHONESTY: any of the following acts, when committed by a student, shall constitute academic dishonesty:

   (a) CHEATING: intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise.
   (b) FABRICATION: intentional and unauthorized falsification or invention of any information or citation in an academic exercise.
   (c) FACILITATING ACADEMIC DISHONESTY: intentionally or knowingly helping or attempting to help another to violate any provision of this Code.
   (d) PLAGIARISM: intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise.

Responsibility to Report Academic Dishonesty

2. Academic dishonesty is a corrosive force in the academic life of a university. It jeopardizes the quality of education and depreciates the genuine achievements of others. It is, without reservation, a responsibility of all members of the campus community to actively deter it. Apathy or acquiescence in the presence of academic dishonesty is not a neutral act. Histories of institutions demonstrate that a laissez-faire response will reinforce, perpetuate, and enlarge the scope of such misconduct. Institutional reputations for academic dishonesty are regrettable aspects of modern education. These reputations become self-fulfilling and grow, unless vigorously challenged by students and faculty alike.

   All members of the University community—students, faculty, and staff—share the responsibility and authority to challenge and make known acts of apparent academic dishonesty.

Honor Statement

3. Letters informing both graduate and undergraduate students of their acceptance at the University, as well as appointment letters for members of the faculty, shall contain a short statement concerning the role of the Student Honor Council, as well as the obligation of all members of the University of Maryland, College Park community to promote the highest standards of academic integrity.
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Honor Pledge

4. On every examination, paper or other academic exercise not specifically exempted by the instructor, the student shall write by hand and sign the following pledge:

   I pledge on my honor that I have not given or received any unauthorized assistance on this examination.

   Failure to sign the pledge is not an honors offense, but neither is it a defense in case of violation of this Code. Students who do not sign the pledge will be given the opportunity to do so. Refusal to sign must be explained to the instructor. Signing or non-signing of the pledge will not be considered in grading or judicial procedures. Material submitted electronically should contain the pledge, submission implies signing the pledge.

5. On examinations, no assistance is authorized unless given by or expressly allowed by the instructor. On other assignments, the pledge means that the assignment has been done without academic dishonesty, as defined above.

6. The pledge is a reminder that at the University of Maryland students carry primary responsibility for academic integrity because the meaningfulness of their degrees depends on it. Faculty are urged to emphasize the importance of academic honesty and of the pledge as its symbol. Reference on syllabi to the pledge and to this Code, including where it can be found on the Internet and in the Undergraduate Catalog, is encouraged.

Self-Referral

7. Students who commit acts of academic dishonesty may demonstrate their renewed commitment to academic integrity by reporting themselves in writing to the Chair of the Honor Council. Students may not exercise the self referral option more than once during their enrollment at the University.

8. If an investigation by the Honor Council Executive Committee or designee reveals that no member of the University had a suspicion of a self-referring student's act of academic dishonesty, then the student will not be charged with academic dishonesty, or left with a disciplinary record. Instead, the Student Honor Council will notify the Dean or a designee and the faculty member where the incident occurred. The Dean or designee shall then convene a conference between the student and the faculty member. The purpose of this conference will be to ensure that the self-referral provisions of this Code are followed, not to levy a sanction, or to create a disciplinary record. The Dean will notify the Student Honor Council in writing of the outcome of the conference.¹

9. In all cases where a student self-referral is accepted, the student will be required to successfully complete the non-credit integrity seminar offered by the Student Honor Council. Also, the student will have any grade for the academic exercise in question reduced one letter grade, or to an "F" or a zero, in the discretion of the faculty member involved.

10. If the Honor Council Executive Committee or designee determines that a suspicion of academic dishonesty existed at the time the student admitted the act, then the matter will be resolved in accordance with the procedures specified in this Code for resolving academic dishonesty allegations. The student's admission may be considered a mitigating circumstance for purposes of sanctioning.

Procedures: Reporting and Informal Resolution

11. Any member of the University community who has witnessed an apparent act
of academic dishonesty, or has information that reasonably leads to the conclusion that such an act has occurred or has been attempted, has the responsibility to inform the Honor Council promptly in writing.

12. If the Honor Council determines that a report of academic dishonesty is supported by reasonable cause\(^2\), the case shall be referred to the Dean of the College where the incident occurred.\(^3\) The Dean or designee, (who must not be the referring faculty member), will inform the accused student in writing of the charges, and shall offer him/her an opportunity for an informal meeting to review the case.\(^4\) The faculty of the course may be included in the meeting. The Dean or designee shall also provide the accused student with a copy of this Code, and a statement of procedural rights approved by the Honor Council\(^5\), which shall include the right of the student to request the presence of a member of the Honor Council at the informal meeting.

13. If the accused student has no prior record of academic dishonesty or serious disciplinary misconduct\(^6\), the Dean or designee and the student may reach an agreement concerning how the case should be resolved. The standard “XF” grade penalty will normally be imposed if it is agreed by the student that he/she committed an act of academic dishonesty. Any other sanction agreed upon by the student and the Dean or designee will constitute a recommendation to the Honor Council, and must be supported by a written statement signed by the student and the dean or designee. The written statement will be reviewed by the Honor Council\(^7\), which shall inform both the student and the Dean or designee of the sanction imposed.

**Procedures: Resolution by an Honor Review**

14. Cases not resolved in accordance with Part 10 of this Code shall result in an Honor Review.\(^8\) An Honor Review is conducted by an Honor Board. The Board is convened by the Student Honor Council. It will normally consist of six persons, five of whom will be voting members. Determinations of the Honor Board will be by a majority vote (three votes or more). Honor Boards are selected as follows:

(a) Three students selected by the Student Honor Council from among its members. In the event the student accused of academic dishonesty is a graduate student, then at least two of the student members shall be graduate students.
(b) Two faculty members selected in accordance with procedures established by the Vice President for Academic Affairs. In the event the student accused of academic dishonesty is a graduate student, then at least one of the persons selected shall be a regular member of the graduate faculty.
(c) The Honor Board shall have one non-voting member, who shall serve as the Presiding Officer. The Presiding Officer may be a student, faculty, or staff member of the University. The Presiding Officer will be selected by the Director of Student Conduct.

15. If the Vice President for Academic Affairs determines that the Student Honor Council or an Honor Board cannot be convened within a reasonable period of time after an accusation is made, the Vice President or a designee may review the case. If there is reasonable cause to believe that an act of academic dishonesty has occurred or has been attempted, the Vice President or designee will convene an ad hoc Honor Board by selecting and appointing two students and one faculty/staff member. Whenever possible, student members of ad hoc Honor Boards shall be members of the Student Honor Council. A non-voting presiding officer shall be appointed by the Director of Student Conduct.

16. The Campus Advocate or a designee shall serve as the Complainant at an Honor Review. The principal responsibilities of the Complainant are:

(a) To prepare a formal charge of academic dishonesty, and deliver it to the student and the Honor Board. The student will be
deemed to have received such notice on the date of personal
delivery, or if certified mail is used, on the date of delivery at the
most recent address provided to the University by the student;
(b) To present the evidence and analysis upon which the charge is
based to the Honor Board during the Honor Review;
(c) To perform such other duties as may be requested by the
Student

Honor Council or the Honor Board.

17. The charge of academic dishonesty serves to give a student a reasonable
understanding of the act and circumstances to be considered by the Honor
Board, thereby placing the student in a position to contribute in a meaningful
way to the inquiry. It also serves to provide initial focus to that inquiry. It is not,
however, a technical or legal document, and is not analogous to an indictment or
other form of process. The charge may be modified as the discussion proceeds,
as long as the accused student is accorded a reasonable opportunity to prepare a
response.

18. The purpose of an Honor Review is to explore and investigate the incident
giving rise to the appearance of academic dishonesty, and to reach an informed
conclusion as to whether or not academic dishonesty occurred. In keeping with
the ultimate premise and justification of academic life, the duty of all persons at
an Honor Review is to assist in a thorough and honest exposition of all related
facts.

The basic tenets of scholarship--full and willing disclosure, accuracy of statement,
and intellectual integrity in hypothesis, in argument and in conclusion--must
always take precedence over the temptation to gain a particular resolution of the
case. An Honor Review is not in the character of a criminal or civil legal
proceeding. It is not modeled on these adversarial systems; nor does it serve the
same social functions. It is not a court or tribunal. Rather, it is an academic
process unique to the community of scholars that comprise a university.

19. The role of the Presiding Officer is to exercise impartial control over the Honor
Review in order to achieve an equitable, orderly, timely and efficient process. The
Presiding Officer is authorized to make all decisions and rulings as are necessary
and proper to achieve that end, including such decisions and rulings as pertain to
scheduling and to the admissibility of evidence. If in the judgment of the
Presiding Officer there is reasonable cause to question the impartiality of a board
member, the Presiding Officer will so inform the Honor Council, which will
reconstitute the board.

20. The Presiding Officer or designee will select the date, time and place for the
Honor Review, and notify the student in writing a minimum of ten (10) days prior
to the review.

21. The sequence of an Honor Review is necessarily controlled by the nature of
the incident to be investigated and the character of the information to be
examined. It thus lies within the judgment of the Presiding Officer to fashion the
most reasonable approach. The following steps, however, have been found to be
efficient, and are generally recommended:

(a) Complainant, and then the student or the student's advocate,
summarize the matter before the Honor Board, including any
relevant information or arguments.

(b) The Complainant, and then the student, present and question
persons having knowledge of the incident, and offer documents or
other materials bearing on the case. The Complainant, the student
and all members of the Honor Board may question any person
giving testimony.

(c) The members of the Honor Board may ask the Complainant or
the student any relevant questions. The members may also request any additional material or the appearance of other persons they deem appropriate.

(d) The Complainant, and then the student or the student's advocate, may make brief closing statements.

(e) The Honor Board meets privately to discuss the case, and reaches a finding by a majority vote.

(f) The Honor Board will not conclude that a student has attempted or engaged in an act of academic dishonesty unless, after considering all the information before it, a majority of members believe that such a conclusion is supported by clear and convincing evidence. If this is not the case, the Honor Board will dismiss the charge of academic dishonesty.

(g) If the Honor Board finds the student has engaged in an act of academic dishonesty, both the Complainant and the student or the student's advocate, may recommend an appropriate sanction. Pertinent documents and other material may be offered. The Honor Board then meets privately to reach a decision, which must be by a majority vote of its members.

(h) The Presiding Officer will provide the Complainant and the student with a written report of the Honor Board's determination.

22. Role of Advocate and Advisor:

(a) The accused student may be assisted by an advocate, who must be a registered, degree-seeking student at the University. The role of the advocate will be limited to:

1. Making brief opening and closing statements, as well as comments on appropriate sanction.
2. Suggesting relevant questions which the Presiding Officer may direct to witness.
3. Providing confidential advice to the student.

(b) The accused student may also be accompanied by an advisor, who may be an attorney. The role of the advisor during an Honor Review will be limited to providing confidential advice only to the accused student, not the advocate, provided such advice is given without interfering with or disrupting the Honor Review. Even if accompanied by an advocate and/or an advisor, the student must take an active and constructive role in the Honor Review. In particular, the student must fully cooperate with the Honor Board and respond to its inquiries without undue intrusion by an advocate or advisor. In consideration of the limited role of advocates and advisors, and of the compelling interest of the University to expeditiously conclude the matter, the work of an Honor Board will not, as a general practice, be delayed due to the unavailability of an advocate or an advisor.

(c) Honor Reviews may be tape recorded or transcribed. If a recording or transcription is not made, the decision of the honor board must include a summary of the testimony and shall be sufficiently detailed to permit review on appeal.

(d) Presence at an Honor Review lies within the judgment of the Presiding Officer. An Honor Review is a confidential investigation. It requires a deliberative and candid atmosphere, free from distraction. Accordingly, it is not open to the public or other "interested" persons. However, at the student's request, the Presiding Officer will permit a student's parents or spouse to
observe and may permit a limited number of additional observers. The Presiding Officer may remove from the Honor Review any person who disrupts or impedes the investigation, or who fails to adhere to the rulings of the Presiding Officer. The Presiding Officer may direct that persons, other than the accused student or the Complainant, who are to be called upon to provide information, be excluded from the Honor Review except for that purpose. The members of the Honor Board may conduct private deliberations at such times and places as they deem proper.

(e) It is the responsibility of the person desiring the presence of a witness before an Honor Board to ensure that the witness appears. If necessary, a subpoena may be requested, in accordance with Part 34 (b) of the Code of Student Conduct.9 Because experience has demonstrated that the actual appearance of an individual is of greater value than a written statement, the latter is discouraged and should not be used unless the individual cannot or reasonably should not be expected to appear. Any written statement must be dated, signed by the person making it, and witnessed by a University employee or by a person approved by the Director of Student Conduct (e.g., a notary). The work of an Honor Board will not, as a general practice, be delayed due to the unavailability of a witness.

(f) An Honor Review is not a trial. Formal rules of evidence commonly associated with a civil or criminal trial may be counterproductive in an academic investigatory proceeding, and shall not be applied. The Presiding Officer will accept for consideration all matters which reasonable persons would accept as having probative value in the conduct of their affairs. Unduly repetitious, irrelevant, or personally abusive material should be excluded.

23. If the Honor Board finds that an attempt or act of academic dishonesty did occur, it shall impose an appropriate sanction. The normal sanction for an undergraduate student shall be a grade of "XF" in the course. The normal sanction for a graduate student shall be dismissal (suspension or expulsion) from the University. The Honor Board may improve a lesser or more severe sanction. Generally, acts involving advance planning, falsification of papers, conspiring with others, or some actual or potential harm to other students will merit a severe sanction, i.e. suspension or expulsion, even for a first offense. An attempt to commit an act shall be punished to the same extent as the consummated act.

**Appeals**

24. In cases where an Honor Board has determined the appropriate sanction to be less than suspension or expulsion, both the finding of responsibility and the sanction(s) of an Honor Board will be final, unless, within 15 business days after the Board’s written decision is sent to the student, and the Dean of the college where the incident occurred, the student or the Dean or designee notifies the Honor Council in writing of the intention of filing an appeal. The student may appeal both the findings and the penalty. The Dean or designee may appeal the penalty only.

A written brief supporting any appeal must be submitted in writing to the Student Honor Council Executive Committee within an additional ten business days. The Executive Committee or designee will provide the opposing party a reasonable opportunity to make a written response.

25. Any member of the Executive Committee who has taken part in an Honor Review that is the subject of an appeal is not eligible to hear the appeal. Substitute Executive Committee members may be selected from experienced Honor Council members, appointed in accordance with Honor Council bylaws.
26 Decisions of the Executive Committee will be by majority vote, based upon
the record of the original proceeding and upon written briefs. Denovo hearings
shall not be conducted.

27. Deference shall be given by the Executive Committee to the determinations of
Honor Boards.

(a) Sanctions may only be reduced if found to be grossly
disproportionate to the offense. Likewise, upon an appeal by a
Dean or designee, sanctions may be increased only if the original
sanction is deemed to be grossly disproportionate to the offense.

(b) Cases may be remanded to a new Honor Board if specified
procedural errors or errors in interpretation of this Code were so
substantial as to effectively deny the accused student a fair
hearing, or if new and significant evidence became available that
could not have been discovered by a diligent respondent before or
during the original Honor Board hearing. On remand, no indication
or record of the previous hearing will be introduced or provided to
the members of the new Honor Board, except to impeach
contradictory testimony, at the discretion of the presiding officer.

(c) Cases may be dismissed only if the finding is held to be
arbitrary and capricious.

28. If an Honor Board determines to suspend or expel a student, then the student
may submit a written appeal to the Senate Committee on Student Conduct, in
accordance with procedures set forth in Parts 43-48 of the Code of Student
Conduct.

29. Regardless of whether an appeal is filed, suspension requires approval by the
Vice President for Student Affairs, and may be altered, deferred, or withheld.
Expulsion requires approval by the President, and may be altered, deferred, or
withheld.

The Grade of "XF"

30. The grade of "XF" is intended to denote a failure to accept and exhibit the
fundamental value of academic honesty. The grade "XF" shall be recorded on the
student's transcript with the notation "failure due to academic dishonesty". The
grade "XF" shall be treated in the same way as an "F" for the purposes of grade
point average, course repeatability, and determination of academic standing.

31. No student with an "XF" on the student's transcript shall be permitted to
represent the University in any extracurricular activity, or run for or hold office in
any student organization which is allowed to use University facilities, or which
receives University funds.

32. The student may file a written petition to the Student Honor Council to have
the grade of "XF" removed and permanently replaced with the grade of "F". The
decision to remove the grade of "XF" and replace it with an "F" shall rest in the
discretion and judgment of a majority of a quorum of the Council provided that:

(a) At the time the petition is received, at least twelve months
    shall have elapsed since the grade of "XF" was imposed; and,
(b) At the time the petition is received, the student shall have
    successfully completed a non-credit seminar on academic integrity,
    as administered by the Office of Student Conduct; or, for the
    person no longer enrolled at the University, an equivalent activity
    as determined by the Office of Student Conduct; and,
(c) The Office of Student Conduct certifies that to the best of its
    knowledge the student has not been found responsible for any
    other act of academic dishonesty or similar disciplinary offense at
33. Prior to deciding a petition, the Honor Council will review the record of the case and consult with the Director of Student Conduct. Generally, the grade of "XF" ought not to be removed if awarded for an act of academic dishonesty requiring significant premeditation. If the "XF" grade is removed, records of the incident may be voided in accordance with Parts 50 and 51 of the Code of Student Conduct. The decision of the Honor Council shall not be subject to subsequent Honor Council review for four years, unless the Honor Council specifies an earlier date on which the petition may be reconsidered. Honor Council determinations pertaining to the removal of the "XF" grade penalty may be appealed to the Vice President for Academic Affairs. If the Vice President removes the grade of "XF" from the student's transcript, the Vice President shall provide written reasons to the Honor Council.

**The Student Honor Council**

34. There shall be a Student Honor Council. The Honor Council is composed of qualified graduate and undergraduate students in good academic standing, normally appointed in the Spring for the following academic year, and who may each be reappointed for additional one year terms.

35. The members of the Honor Council are appointed by a committee consisting of the Vice President for Academic Affairs, the Vice President for Student Affairs, the Chair of the Graduate Student Association, the President of the Student Government Association, and the Chair of the Honor Council.

36. All council members are subject to the training and conduct requirements of Parts 26 and 27 of the Code of Student Conduct.

37. The Student Honor Council has the following responsibilities and authority:

   (a) To increase awareness throughout the campus of the importance of academic integrity.
   (b) To develop bylaws subject to approval by the University for legal sufficiency and consistency with the requirements of this Code of Academic Integrity, and the Code of Student Conduct.
   (c) To designate from its members students to serve as members of Honor Boards as specified in this Code.
   (d) To consider petitions for the removal of the grade of "XF" from University records in accordance with Part 29 of this Code.
   (e) To receive complaints or reports of academic dishonesty from any source.
   (f) To assist in the design and teaching of the non-credit seminar on academic integrity and moral development, as determined by the Director of Student Conduct.
   (g) To advise and consult with faculty and administrative officers on matters pertaining to academic integrity at the University.
   (h) To issue an annual report to the Campus Senate on academic integrity standards, policies, and procedures, including recommendations for appropriate changes.

38. The campus administration shall provide an appropriate facility, reserved for the primary use of the Honor Council, and suitable for the conduct of hearings. Clerical and secretarial assistance will also be provided.

**Future Self Governance**

39. Insofar as academic dishonesty is most immediately injurious to the student body, and because the student body is in a unique position to challenge and deter it, it is the intent of the University that ultimately this Code will evolve into one where the provisions are marked by complete student administration.
Terms

AD HOC HONOR BOARD - consisting of two students and one faculty member appointed by the Vice President for Academic Affairs, and a Presiding Officer appointed by the Director of Student Conduct.

ACADEMIC DISHONESTY - see Part 1 of this Code.

CHARGE OF ACADEMIC DISHONESTY - a formal description of the case being considered by the Honor Board.

CLEAR AND CONVINCING EVIDENCE - that evidence which results in reasonable certainty of the truth of the ultimate fact in controversy. It requires more than a preponderance of the evidence but less than proof beyond a reasonable doubt. Clear and convincing evidence will be shown where the truth of the facts asserted is highly probable.

EXECUTIVE COMMITTEE - a committee of Honor Council officers, selected in accordance with Honor Council bylaws.

HONOR BOARD - body appointed by the Student Honor Council to hear and resolve a case of academic dishonesty. The board consists of five voting members (three student members of the Honor Council and two faculty members).

HONOR REVIEW - process leading to resolution of an academic dishonesty case.

COMPLAINANT - officer responsible for preparing the charge of academic dishonesty and presenting the case before the Honor Board. The Complainant must be a registered, degree-seeking student.

PRESIDING OFFICER - individual on the Honor Board responsible for directing proceedings during the Honor Review. The presiding officer is a non-voting member of the Honor Board selected by the Director of Student Conduct.

STUDENT HONOR COUNCIL - students appointed by the Vice Presidents for Academic and Student Affairs, as well as by the President of the Student Government Association, the Chair of the Graduate Student Association, and the Chair of the Honor Council.

Footnotes

{1} The Dean's notice shall be maintained in a file of self-referrals, but shall not be considered a disciplinary record.
{2} Pertinent procedures for determining reasonable cause shall be set forth in the Honor Council bylaws.
{3} Cases involving graduate students should be reported to the Dean of the Graduate School.
{4} It is recommended that the meeting be held within ten business days after receipt of the Honor Council report by the Dean.
{5} The statement shall include a reference to the right to be represented by an advocate, as specified in Part 18(a) of this Code.
{6} In every case the Dean or designee shall check with the Office of Student Conduct to determine if a prior record exists.

The determination whether an Honor Council applicant is "qualified" rests within the discretion of the selection committee, provided that no uniform grade point "cutoff" is applied. A history of disciplinary or felonious misconduct may be sufficient grounds to disqualify any candidate.