Table of Contents

Accreditation ii
Message From the President iii
Academic Calendar iv
The University
Mission of the University 1
Statement on Liberal Education 1
Diversity & Equal Opportunity 1
Undergraduate Institutional Learning Goals 2
Academic Programs 3
Facilities 5
History 10
Admission 11
Expenses, Financial Aid & Scholarships 15
Campus Life and Activities 23
Academic Life 29
Programs of Study 49
Course Descriptions 171
Personnel Register 231
Policies 241
Index 255

FSU at a Glance
Majors
Accounting
Adventures Sports Management
Art & Design
Athletic Training
Biology
Business Administration
Chemistry
Communication Studies
Computer Information Systems
Computer Science
Early Childhood/Elementary Education
Earth Science
Economics
Elementary Education
Elementary/Middle School Dual Certification
Engineering
English
Environmental Analysis & Planning
Ethnobotany
Exercise & Sport Science
Foreign Languages & Literatures
Geography
Health & Physical Education
Health Science
History
Information Technology
International Studies
Interpretive Biology and Natural History
Law and Society
Liberal Studies
Mass Communication
Mathematics
Mechanical Engineering
Music
Nursing (B.S.N.)
Philosophy
Physics
Psychology
Recreation & Parks Management
Secondary Teacher Education
Social Computing & Information Assurance
Social Sciences
Social Work
Sociology
Theatre
Urban and Regional Planning
Wildlife & Fisheries
Pre-Professional Programs
Dental Hygiene
Dentistry
Law
Medical Technology
Medicine
Nursing
Occupational Therapy
Optometry
Pharmacy
Physical Therapy
Veterinary Medicine

For Visits and Further Information
Visitors are always welcome at Frostburg State University. Applicants can contact the Office of Admissions, 301.687.4201, to arrange a date and time. Administrative offices are generally open from 8:30 a.m. to 4:30 p.m., Monday through Friday. The mailing address for the Frostburg State University main campus is 101 Braddock Road, Frostburg, Maryland 21532-2803.

Information 301.687.4800
Academic Programs and Policies Hitchcox 213 301.687.4211
Admissions Pulley 114 301.687.4201
Alumni and University Advancement Lyts Hwy., 20 E. Main St. 301.687.4501
Center for Advising & Career Services Sand Spring Hall 301.687.4403
Financial Aid Pulley 114 301.687.4301
On-Campus Housing Annapolis Hall 301.687.4321
Registration and Transcripts Pulley 301.687.4146
Student Services Hitchcox 116 301.687.4331
University & Student Billing Pulley 301.687.4321
USM - Hagerstown 32 W. Washington St. 240.537.2060
Hagerstown, MD 21740
Accreditation

Frostburg State University is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267.284.5000). The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

Accreditors Approved by the U.S. Secretary of Education:

- BSN in Nursing: Commission on Collegiate Nursing Education (CCNE)
- Teacher Education Programs: National Council for the Accreditation of Teacher Education (NCATE)

Other Accreditors:

- BA/BS in Athletic Training: Commission on Accreditation of Athletic Training Education (CAATE)
- College of Business programs: AACSB International (Association to Advance Collegiate Schools of Business)
- MS in Counseling Psychology: Master’s in Psychology Accreditation Council (MPAC)
- BA/BS program in Mechanical Engineering, in collaboration with the University of Maryland College Park: Engineering Accreditation Commission of ABET, Inc.
- BS Engineering Program Concentrations in Materials Engineering and Electrical Engineering were accredited by ABET through September 2020.
- BS Engineering Program Concentration in Electrical Engineering was accredited through September 2020.
  These programs join our already ABET accredited Collaborative Mechanical Engineering Program.
- BA/BS in Recreation and Parks Management: Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT)
- BA/BS in Social Work: Council on Social Work Education (CSWE)
- Teacher Education Programs: Also approved by the Maryland State Department of Education (MSDE) as consistent with the Maryland Redesign of Teacher Education
- Brady Health Center: Accreditation Association for Ambulatory Health Care (AAAHC)
- Counseling and Psychological Services: International Association of Counseling Services

The provisions of this catalog are not to be regarded as an irrevocable contract between the University and the student. The University reserves the right to change any provisions of requirement at any time, but its practice is to not make changes in degree and admission requirements retroactive. Other regulations and procedures and course offerings may change during the period of your enrollment. Whenever possible, such changes will be published in official University publications such as the Undergraduate Catalog and Registration Guidelines, and on the University Web site, with prior notice of changes provided. However, if circumstances require, such changes may be made without notice.

NOTE: 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 such changes are deemed necessary by the University and the University System of Maryland Board of Regents.

FSU is committed to making all of its programs, services and activities accessible to persons with disabilities. To request accommodation through the ADA Compliance Office, call 301.687.4102 or use a Voice Relay Operator at 1.800.735.2258.

Frostburg State University is an Equal Opportunity institution. Admission as well as all policies, programs and activities of the University are determined without regard to race, color, national origin, ethnic background, gender, sexual orientation, age, genetic information, creed, political or religious opinion or affiliation, disability, veteran’s status or marital status, in conformity with all pertinent Federal and State laws on non-discrimination and equal opportunity.

FSU is a smoke-free campus.
Dear Frostburg State University Student and Friends:

This catalog is designed to be a road map to your future at Frostburg State University. It will direct you to valuable information regarding the College of Liberal Arts and Sciences, the College of Education and the College of Business. It will lead you through our many programs of study, giving details about every course available at the time of printing, and it will guide you to the best opportunities for financial aid. It will give you useful information about our academic policies and procedures. In short, this catalog will provide a description of what we offer and how you can become a part of Frostburg State University.

Like any map, what it cannot provide is the experience of Frostburg State University. It cannot describe the quality of our faculty and our support personnel. You may note that more than 80 percent of our faculty have Ph.D’s, but it is important to know that they publish in the most prestigious books and journals in the world, while still giving their full support and attention to their students. They pride themselves on the close and personal connections they form with students. It doesn’t tell you that we employ one faculty member for every 18 students and that you will never sit in a lecture hall with hundreds of students. It also cannot express the importance we place on providing support through our Center for Academic Advising and Retention, our Orientation Program or our Learning Connections in which all incoming freshmen join a group of students with similar interests, then take some of their general education courses with those same students. Enduring friendships are often born of these communities.

This catalog cannot give you a true sense of this beautiful, uncrowded campus in the mountains of Western Maryland, nor can it convey the environment that so many students say enhances both their learning and their development as human beings. These qualities can only be realized from experiencing this campus and allowing us the privilege of providing you an education.

We are glad you have chosen Frostburg and look forward to your becoming an engaged member of our community who will remember mentors, friends, and intellectual challenges when you think of Frostburg State University in years to come.

Jonathan Gibralter, President
## Introduction

Calendar subject to change without notice.

### Fall Semester 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 5</td>
<td>Fall Tuition Payment must be received in Billing Office</td>
</tr>
<tr>
<td>August 6</td>
<td>De-Registration May Occur — late Payment begins</td>
</tr>
<tr>
<td>August 27</td>
<td>Non-Registered Transfers Testing, Advising, and Registration and Freshmen Testing</td>
</tr>
<tr>
<td>August 28</td>
<td>Residence Halls open for new registered students 12 Noon</td>
</tr>
<tr>
<td>August 30</td>
<td>Residence Hall open for returning registered students 9 am</td>
</tr>
<tr>
<td>August 31</td>
<td>Classes Begin</td>
</tr>
<tr>
<td>August 31 – Sept 4</td>
<td>Drop/Add Period and Late Registration (PAWS and Academic Departments) All unpaid accounts are charged $60 in late fees</td>
</tr>
<tr>
<td>September 4</td>
<td>Last Day to Add courses</td>
</tr>
<tr>
<td>September 7</td>
<td>Labor Day — No Classes/Offices Closed</td>
</tr>
<tr>
<td>September 18</td>
<td>Last Day to File Pass/Fail Option</td>
</tr>
<tr>
<td>October 9</td>
<td>Last Day for Undergraduate Grade Changes for Spring 2015 and Summer 2015 (Including Removal of “I” Grades)</td>
</tr>
<tr>
<td>October 12</td>
<td>Mid-Semester Warnings Available in PAWS</td>
</tr>
<tr>
<td>October 23</td>
<td>Last Day to Register for Six-Week Intensive Web Courses</td>
</tr>
<tr>
<td>October 26</td>
<td>Spring 2016 Registration Guidelines Booklet Available</td>
</tr>
<tr>
<td>October 28</td>
<td>First Day of Intensive Web Courses</td>
</tr>
<tr>
<td>November 2-20</td>
<td>Spring 2016 Registration (Without Payment)</td>
</tr>
<tr>
<td>Nov. 2-Dec. 11</td>
<td>Intersession 2016 Registration (Without late fee)</td>
</tr>
<tr>
<td>November 6</td>
<td>Last Day to Withdraw from Undergraduate Courses with “W”</td>
</tr>
<tr>
<td>November 24</td>
<td>Residence Halls Close 7:00 pm</td>
</tr>
<tr>
<td>November 25-29</td>
<td>Thanksgiving Recess</td>
</tr>
<tr>
<td>November 29</td>
<td>Residence Halls Open 12 noon</td>
</tr>
<tr>
<td>November 30</td>
<td>Classes Resume</td>
</tr>
<tr>
<td>December 11</td>
<td>Last Day to Withdraw from Courses with “WF”</td>
</tr>
<tr>
<td>December 11</td>
<td>Last Day of Classes</td>
</tr>
<tr>
<td>December 12</td>
<td>Common Exams</td>
</tr>
<tr>
<td>December 13</td>
<td>Reading Day</td>
</tr>
<tr>
<td>December 14-18</td>
<td>Final Exams</td>
</tr>
<tr>
<td>December 18</td>
<td>Residence Halls Close 7:00 pm</td>
</tr>
<tr>
<td>December 19</td>
<td>Commencement</td>
</tr>
</tbody>
</table>
The Mission of the University

Summary Mission Statement
Frostburg State University is a student-centered teaching and learning institution featuring experiential opportunities. The University offers students a distinctive and distinguished baccalaureate education along with a select set of applied master's and doctoral programs. Frostburg serves regional and statewide economic and workforce development; promotes cultural enrichment, civic responsibility and sustainability; and prepares future leaders to meet the challenges of a complex and changing global society.

Approved by the Board of Regents of the University System of Maryland. Approval of the Maryland Higher Education Commission.

Statement on Liberal Education
We believe that liberal education empowers students and frees them from ignorance by informing them about the world, its histories, methods of inquiry, and values. Liberal education develops students’ intellects and enhances their love of learning and awareness of individual and social responsibility by encouraging them to learn and apply knowledge to solve important problems.

Diversity and Equal Opportunity
Frostburg State University affirms its commitment to a campus environment which values human diversity and respects individuals who represent that diversity. Fostering diversity and respect for difference is a fundamental goal of higher education, ranking among the highest priorities of this institution.

In this spirit, Frostburg State University is committed to a policy of equal opportunity and to the elimination of discrimination in both education and employment on the basis of race, color, national origin, ethnic background, gender, sexual orientation, age, genetic information, creed, political or religious opinion or affiliation, disability, veteran's status or marital status, in conformity with all pertinent Federal and State laws on non-discrimination and equal opportunity.

The following policies guide the University in meeting its aims of diversity and equal opportunity. Copies of these policies are available in the ADA/EEO and Title IX Compliance Office (301.687.4102).
- Affirmative Action/Equal Employment Opportunity (PN 1.002)
- Policy On Sexual Misconduct (VI-1.60)
- Policy on Diversity (PN 1.006)
- Policy of Non-Discrimination/Equal Opportunity (PN 1.008)
- Policy on Compliance with Disability Discrimination Laws (PN 3.073)
- Policy On Reasonable Accommodations for Disabilities Due to Pregnancy (PN 3.119)

Americans With Disabilities Act
Frostburg State University does not discriminate on the basis of disability in admissions or in access to any of its programs or activities.

It is committed to full compliance with the Americans with Disabilities Act (ADA). The ADA requires that all University programs, services, and activities be accessible to qualified individuals with disabilities. If a program or service is inaccessible to disabled persons, the University maintains responsibility for providing reasonable accommodation to ensure accessibility. This includes, but is not limited to, access to classes, lectures and all campus-sponsored events, on-campus housing, and all facilities used by students and visitors. To request accommodation through the ADA Compliance Office, call 301.687.4102 or use a Voice Relay Operator at 1.800.735.2258.
Undergraduate Institutional Learning Goals

Frostburg State University’s Institutional Learning Goals reflect the mission of the University through a focus on five specific areas of student learning. Individual departments, programs, and services will provide opportunities, where appropriate, for you to attain the skills and dispositions identified by the University as essential to education.

1. Liberal knowledge and skills of inquiry, critical thinking and synthesis
   You will acquire knowledge in the humanities, the natural sciences, the social sciences, and the arts, which collectively embody the human cultural heritage. You will develop your abilities to practice higher-level critical thinking.

   You will
   a. apply different methods of inquiry from various perspectives and disciplines to gather information;
   b. comprehend and apply various research methods to evaluate information critically;
   c. analyze complex issues and construct logical conclusions;
   d. use problem-defining and problem-solving skills by synthesizing ideas within and across disciplines;
   e. demonstrate sustained intellectual curiosity.

2. Core skills
   You will become proficient in reading, writing, speaking and listening. You will also develop quantitative literacy and technological fluency.

   You will
   a. comprehend and critically interpret information in written and oral forms;
   b. communicate information and ideas effectively;
   c. understand and apply mathematical reasoning to solve quantitative problems and to evaluate quantitative information and arguments;
   d. use technological resources to access and communicate relevant information.

3. Acquisition and application of specialized knowledge
   You will gain knowledge and skills appropriate both for your field of study and to enter into the professional sector and/or graduate school.

   You will
   a. demonstrate technical and analytic skills that are appropriate to your field of study and applicable to future careers;
   b. acquire research skills and specialized vocabulary for critical discourse;
   c. demonstrate competencies and achievements appropriate to your field of study;
   d. apply classroom learning in a combination of reflective practice and experiential education.

4. Values & social responsibility
   You will critically explore, evaluate, and define your values and become a responsible citizen in a complex and changing society.

   You will
   a. demonstrate respect and tolerance for other cultures and societies;
   b. make professional and personal judgments based on ethical considerations and societal values;
   c. exhibit civic responsibility and leadership;
   d. understand the purpose and value of community service in advancing society;
   e. demonstrate an awareness of and appreciation for the natural environment.

5. Appreciation of cultural identities
   You will gain insight into the ways cultural identities and experiences shape individual perspectives of the world and influence interactions with people from different backgrounds.

   You will
   a. demonstrate the knowledge, skills, and attitudes essential for communicating and cooperating effectively with people of diverse backgrounds;
   b. understand the cultural and social exercise of power;
   c. recognize and appreciate arguments supporting perspectives different from your own.
Academic Programs

You can make the most of your undergraduate education by fully exploring the options open to you. Selecting your major is only one step in the process. The University offers many special areas of study within your major and outside your major which can enhance your learning and future job possibilities.

Majors

Frostburg State University offers 48 different undergraduate majors, many of which allow you to choose a specialization within a broader field of study. In addition, a major in mechanical engineering is offered in collaboration with the University of Maryland, College Park. These programs are taught by faculty assigned to one of three colleges: the College of Business, the College of Education and the College of Liberal Arts and Sciences.

College of Business
Accounting
Business Administration
● finance
● general management
● hospitality management
● human resource management
● international business
● marketing
● small business/entrepreneurship
Economics
● business economics
● public policy economics
● quantitative economics

College of Education
Athletic Training
Adventure Sports Management
Early Childhood/Elementary Education
Elementary Education
● integrated arts
● language and literacy
● social science and civics
● STEM
Elementary/Middle School Dual Certification
Exercise & Sport Science
Health & Physical Education
Recreation & Parks Management
● adventure sports
● community program delivery
● hospitality management & tourism
● therapeutic recreation
Social Science+
Secondary Teacher Education*

College of Liberal Arts & Sciences
Art and Design+
● seven studio focuses

biology+
● molecular biology
● environmental science
Chemistry+
● biochemistry
● professional chemistry
● traditional chemistry
Communication Studies
● conflict communication
● leadership communication
● public communication & rhetorical studies
Computer Information Systems
Computer Science
● networks
Earth Science+
● environmental science
Engineering
● electrical engineering
● industrial chemistry
● materials engineering
● engineering management
English
● creative writing
● literature
● professional writing
Environmental Analysis & Planning
Ethnobotany
Foreign Languages & Literature+
● French
● Spanish
Geography
● climate system science
● global systems analysis
● mapping sciences
Health Science
History
● international history
● history of the Americas
Information Technology
● accounting
● business information technology
● computer security
● graphic arts
● mass communication
International Studies
● international business
● international development
● international economics
● international politics
Interpretive Biology & Natural History
Law & Society
● criminal justice
● legal studies
Liberal Studies
Mass Communication
● nine professional focuses
Mathematics+
Mechanical Engineering
(in collaboration w/UMCP)
Music+
● instrumental performance
● music management
● vocal performance
Nursing: RN to BSN (collaborative)
Philosophy
Physics+
● engineering physics
● traditional physics
Political Science
Psychology
Secure Computing & Information Assurance
Social Work
Sociology
Theatre
● acting
● design/technology
● theatrical studies
Urban & Regional Planning
Wildlife & Fisheries

*only available as a second major

● = concentration
► = track
+ = teaching certification option

Old Main
Minors
You may also select from 47 minors. Minors require a minimum of 18 credit hours in an area of study outside your major. Minors are offered in most of the major fields. Distinctive minors (no similar majors offered) include:

**College of Business**
- Finance
- Financial Services
- Management
- Marketing
- Small Business/Entrepreneurship

**College of Education**
- Coaching
- Health Promotion

**College of Liberal Arts & Sciences**
- African American Studies
- Animal Behavior
- Art History
- Cultural Anthropology
- Dance
- Film Studies
- Fine Arts
- Forestry
- Graphic Design
- Jazz Studies
- Journalism
- Leadership Studies
- Public Relations
- Sustainability Studies
- Women's Studies

Distinctive Areas of Study and Emphases
The University offers a number of special course groupings which prepare you for different professions or graduate programs, or give you academic distinction. Each of these areas of study is fully described in each College's section of this catalog.

**College of Business**
- B.S. Accounting/MBA Dual Degree

**College of Education**
- Educational Professions
- Education: P-12 Programs
- Physical Therapy Preparation

**College of Liberal Arts & Sciences**
- Addictions Counseling
- Child and Family Counseling
- Computer Print Graphics
- Dental Hygiene Preparation
- Law: Law School Preparation, Bachelors/Juris Doctor Dual Degree Program
- Leadership in Psychology
- Mathematical Sciences (Focus)
- Medical Technology Preparation
- Medicine, Dentistry, Optometry, Veterinary Medicine Preparation
- Nursing Preparation
- Occupational Therapy Preparation
- Pharmacy Preparation
- Professional Writing
- Public Administration
- Teaching of Writing

Certificate Programs
Degree-seeking undergraduates and non-degree-seeking community members may earn a certificate in several specialized areas. Certificate programs are designed to provide specialized skills and knowledge that may enhance your undergraduate program and/or provide skills useful in employment. Undergraduate certificates include a minimum of 12 credit hours.

The following certificate programs currently are offered.

**Software Development**
- (Computer Science)

**Programming**
- (Computer Science)

**Networking**
- (Computer Science)

**International Area Studies**
- (International Studies)
Choosing a Major

There are many campus resources that can help you find a major that’s a good fit for you:

- The Center for Academic Advising and Retention is here to assist you if you have not declared a major or are considering changing your major.
- The Career and Professional Development Center publishes a guide to declaring your major, provides resources to help explore academic areas and offers individual counseling to assist your search.
- Majors Fair: annually in the fall semester
- Career Expo: annually in October
- CAREER BEAM: an online career assessment program
- FSU Connections: learning communities
- Faculty in departments offering majors which interest you
- ORIE 101: Introduction to Higher Education
- Office of Student Affairs
- Counseling and Psychological Services
- Programs Advancing Student Success (PASS)

Declaring a Major

First time college students and transfer students may declare their major at the time of admission. Transfer students will be assigned a departmental advisor at registration, while freshman students will be initially advised by their ORIE 101 – Introduction to Higher Education instructor. Freshmen may transition to departmental advising during their second semester after confirming their major choice with their ORIE advisor and meeting with the chair of the department that offers the program. You are expected to declare a major by the time you have completed 45 credit hours. You can change your major at any time. Talk to your advisor and the chair of the department that offers the new major if you want to make a change.
The Campus and Its Surroundings

Frostburg State University is located in the Appalachian highlands (elevation 2,000 feet) of western Maryland. The main campus covers 260 acres within the town limits of Frostburg (population 7,500). The University also offers programs at the University System of Maryland - Hagerstown, Anne Arundel Community College Regional Higher Education Center at Arundel Mills, the Catonsville Campus of the Community College of Baltimore County, Cecil College and Garrett College.

The local region is rich in both history and outdoor activities. Students can visit nearby recreational areas—Rocky Gap, New Germany and Deep Creek Lake State Parks—which offer camping, boating, swimming, hiking and skiing.

The Campus and Its Surroundings

The University buildings and grounds, set on 260 acres, make learning, living and working on our campus a special pleasure. Nature easily enters into the daily lives of students: buildings are set around grassy quads; varieties of plants and the surrounding woods change with the seasons.

The University is also the Coordinating Institution for the University System of Maryland - Hagerstown.

Facilities

The University buildings and grounds, set on 260 acres, make learning, living and working on our campus a special pleasure. Nature easily enters into the daily lives of students: buildings are set around grassy quads; varieties of plants and the surrounding woods change with the seasons.

The University is also the Coordinating Institution for the University System of Maryland - Hagerstown.

The Main Campus

Our classroom buildings include the new Gira Center for Communications and Information Technology, Compton Science Center, Dunkle, Fine Arts, Framptom, Gunter, Lowndes, Old Main, Pullen and the Guild Human Resources Center. Students also attend classes in the Performing Arts Center and the Cordts Physical Education Center.

In addition to specialized departmental labs in all departments, science facilities include a planetarium, greenhouse, live animal rooms, centrifuge, herbarium, arboretum, biotechnology center and electron microscope. The Appalachian Laboratory of the USM Center for Environmental Studies also provides research facilities for FSU students and faculty, as does the new research park. Finally, FSU is one of the few institutions that gives undergraduates the opportunity to conduct non-invasive research on animal behavior through providing a home to a cotton-top tamarin colony.

Our students live on campus in 11 residence halls (Allen, Annapolis, Cambridge, Cumberland, Diehl, Frederick, Frost, Gray, Simpson, Sowers and Westminster), and Edgewood Commons, a privately owned apartment-style community.

Student meals are served in the Chesapeake Dining Hall, the Appalachian Station in the Lane University Center, and at Subway in Sowers Hall.

Pullen and Sand Spring Halls house most student services offices. In Pullen, you will find Admissions and Financial Aid, the Registrar, University and Student Billing, Office of Graduate Services, Center for Academic Advising and Retention (CAAR), Programs Advancing Student Success (P.A.S.S.), Disability Support Services and TRiO Student Support Services. Sand Spring Hall is the home to Counseling and Psychological Services, Career and Professional Development, the Career Resource Center, Veterans’ Affairs, Upward Bound and the Regional Math/Science Center.

Driving Times to Frostburg

<table>
<thead>
<tr>
<th>Location</th>
<th>Driving Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore</td>
<td>2 1/2 hrs.</td>
</tr>
<tr>
<td>Frederick</td>
<td>1 1/2 hrs.</td>
</tr>
<tr>
<td>Hagerstown</td>
<td>1 hr.</td>
</tr>
<tr>
<td>Harrisburg</td>
<td>2 hrs.</td>
</tr>
<tr>
<td>Johnstown</td>
<td>1 hr.</td>
</tr>
<tr>
<td>Morgantown</td>
<td>1 hr.</td>
</tr>
<tr>
<td>New York</td>
<td>6 1/2 hrs.</td>
</tr>
<tr>
<td>Norfolk</td>
<td>6 1/2 hrs.</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>4 1/2 hrs.</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>2 1/2 hrs.</td>
</tr>
<tr>
<td>Richmond</td>
<td>4 hrs.</td>
</tr>
<tr>
<td>Salisbury (MD)</td>
<td>5 1/2 hrs.</td>
</tr>
<tr>
<td>Somerset (PA)</td>
<td>3/4 hr.</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>2 1/2 hrs.</td>
</tr>
</tbody>
</table>
Specialized Facilities

The Library
The Lewis J. Ort Library provides a wealth of research and reference materials for student and community use.

- OneSearch, the library’s discovery tool for thousands of books, articles, information databases and online resources available at http://www.frostburg.edu/lewis-ort-library/
- Consortium of 16 libraries within the University System of Maryland and Affiliated Institutions (USMAI), which provides access to additional research materials
- ILLIAD interlibrary loan services to request research materials from other libraries beyond the USMAI libraries
- Thousands of electronic books (e-books) covering all academic subjects and accessible 24/7 using the Library’s online catalog at http://catalog.umd.edu/F/ or OneSearch
- Reference assistance onsite or online through Maryland AskUsNow chat reference or Ask a Librarian email at www.frostburg.edu/lewis-ort-library/asklib. Individual Research Consultations are also available at http://www.frostburg.edu/lewis-ort-library/userserv/research-consultation-services/
- Over 700 reference resources available online via Credo and Gale Virtual Reference Library at http://libguides.frostburg.edu/databaselist
- Circulating art prints, DVDs, CDs, VHS tapes and teacher materials
- Microfilm reader/printer/scanners available for historic newspaper and periodical collection
- Selective depository for print and electronic U.S. and Maryland government documents and maps
- Special collections and archives with emphasis on Western Maryland, including the public papers of two U.S. Senators from Maryland – J. Glenn Beall and J. Glenn Beall, Jr.
- Individual and group instruction in information literacy/fluency in the use of the library’s resources
- 100 Internet work stations including 12 iMacs, a 32-station electronic instruction center, public scanners and wireless Internet access
- Individual study rooms, five small group computer rooms and a smart multimedia room for practicing group oral presentations

Visit the Lewis J. Ort Library website at www.frostburg.edu/lewis-ort-library.

Lane University Center
The newly renovated and expanded Lane University Center is the hub for student activities and was built and operates with student fees. It contains a fitness center, computer lab, a state-of-the-art smart lounge featuring Xbox 360 and Wii gaming stations, student organization offices, the University Store, The Appalachian Station restaurant, The Loft and Starbucks. Lane University Center programs and services are described in the Campus Life chapter.

Harold J. Cordts Physical Education Center
Students with valid University identification can use the extensive indoor and outdoor facilities of the Harold J. Cordts Physical Education Center:

- Three gymnasiums for basketball and other sports
- Swimming pool
- Weight rooms with Matrix and Life Fitness cardio-vascular equipment, Hammer Strength free weights and Tuff Stuff machines
- Racquetball courts
- Climbing gym
- Outdoor tennis courts and all-weather track

For information on availability, contact the director at 301.687.4462

Performing Arts Center
Students studying theatre and dance, music and communication studies can flourish in the Performing Arts Center. The center contains three state-of-the-art performing spaces: the 338-seat Drama Theater,
the 175-seat F. Perry Smith Studio Theater and the 458-seat Pealer Recital Hall. It is complete with scenic and costume shops, a box office, practice rooms, faculty and staff offices, dressing rooms, two separate dedicated computer labs and other production facilities. Campus and community audiences are welcome at a wealth of concerts and performances. For more information, contact the director of the Performing Arts Center at 301.687.3037.

Department of Technology Services

The Technology Services Department is dedicated to providing meaningful and successful experiences with technology to support teaching and learning. We provide resources, technical assistance, and advocacy for technology initiatives for faculty, staff, and students. Core components of the department include Help Desk, PC maintenance, classroom and lab support, computer purchases, software licensing, website management, and multi-media. Help Desk support provides assistance for any technical issue including Blackboard, PAWS, e-mail, Internet connectivity, etc. Interactive video instruction at FSU is conducted through the University System of Maryland’s Interactive Video Network (IVN). This network provides an opportunity for interaction with other institutions within the state of Maryland and beyond.

Computer Labs

Students have access to a rich computing environment that includes specialized department labs housed in various campus buildings as well as the main University Computer Labs located in CCIT. The University Computer Labs offer:

- Apple and Windows workstations connected to the campus network and the Internet.
- Scanning and printing facilities.
- Standard software including word processing, spreadsheets, databases, Internet browsers, graphics production, and other specialized software.
- Access to statistics packages, programming languages, and database programs through academic servers.
- Operational support for the 24 hour/7 days a week lab located in CCIT 133 (access via student ID only).

Department of Instructional Design & Delivery

The principal mission of education at Frostburg is to enhance student access to the University’s academic programs. The University is committed to providing students the support and resources needed to succeed as participants in campus-based and distance education. The Instructional Design & Delivery Department provides helpful resources for online and face-to-face courses.

Frostburg State University’s online courses and programs, taught by certified faculty, are open to all eligible students who are prepared to learn in an online environment. Online courses at FSU allow students to pursue their degree requirements outside the traditional classroom setting, which also provides an opportunity to acquire the technical skills and learning strategies important to the pursuit of students’ academic and career goals. Taking online courses can also accelerate their time to degree. Most of the course materials (other than textbooks) are available electronically with use of the web as the primary means of communication. Some courses may require limited on-site contact between students and the instructor (e.g., an orientation session or proctored testing) at various times throughout the academic term.

Both departments may be reached at 301.687.7090. The FSU Help Desk can be reached at 301.687.7777. Visit our website at www.frostburg.edu/computing.
The University System of Maryland - Hagerstown

The University System of Maryland - Hagerstown (USMH) is a regional higher-education center located in downtown Hagerstown that offers upper-division-undergraduate and graduate academic programs of the universities within the University System of Maryland at a state-of-the-art facility. While Frostburg State University is the managing institution for USMH, six institutions offer degrees at USMH: Coppin State University; Frostburg State University; Towson University; University of Maryland, College Park; University of Maryland University College and Salisbury University. USMH undergraduate and graduate programs are premier offerings of the USM educational institutions, chosen because they meet the needs of the Washington County business community and of prospective students from Hagerstown and Frederick Community Colleges and the wider tri-state region.

USM institutions currently offer 13 undergraduate and 8 graduate degrees onsite. Baccalaureate programs include: business administration, early childhood education, sociology and liberal studies. Graduate programs include master’s programs in business administration, and elementary and secondary education, and an Ed.D. in educational leadership. USMH offers access to on-site academic advising, computer labs and a full-service library to meet student needs.

USMH is open Monday through Thursday, 8:30 a.m. to 9:00 p.m.; Friday, 8:30 a.m. to 5:00 p.m.; and Saturday, 9:00 a.m. to 2:00 p.m..

For further information, contact the USMH Center at 240.527.2060, or the FSU office at USMH at 240.527.2741.

Other Instructional Sites and Online Programs

The BA/BS in recreation and parks management, including the therapeutic recreation concentration, is offered at the Community College of Baltimore County. The electrical engineering concentration in the BS in engineering may be completed at the Anne Arundel Community College Regional Higher Education Center at Arundel Mills. The BS in engineering with a concentration in materials engineering may be completed at Cecil College. The BS in adventure sports management is offered at Garrett College.

Graduate programs delivered online include: Master of Business Administration, Master of Science in Recreation and Parks Management, Master of Science in Computer Science and Master of Science in Nursing.
University History

1898 The Maryland General Assembly authorized State Normal School #2 and a $20,000 appropriation for a building. The Governor selected Frostburg as a site because the residents offered the best suitable location without cost to the State.

1898 Townspeople raised the money to buy Beall’s Park – a two-acre site – for the State Normal School.

1900 Old Main – the first campus building – was completed.

1902 Fifty-seven students attended the first classes of the State Normal School at Frostburg. We offered a two-year program of elementary school teacher training.

1904 Our first commencement. Students received a diploma and a life-time teaching certificate.

1913 The Model School began operating in its new building. This was our first campus training school which allowed student teachers to work directly with children in the classroom.

1919 We opened our first residence hall.

1930 A six-room training school for student teachers replaced the 1913 Model School.

1931 The institution’s name changed to State Teachers College at Frostburg.

1935 The first four-year degree students graduated with Bachelors in Science in Elementary Education.

1946 The college first offered a liberal arts junior college program. This degree was discontinued in 1960 when four-year programs replaced it.

1947 We completed our first science building. It was followed by the Garrett Science Building in 1952, the Tawes Science Hall and Planetarium in 1968 and the Compton Science Center in 2003.

1949-50 50th Anniversary Year

1950-51 The State Legislature funded a 40-acre expansion to our campus and 5 new buildings.

1959 The new teacher-training laboratory school was completed and named after State Superintendent of Schools Thomas G. Pullen. It continued operating as an elementary school until 1976.

1960 The Board of Trustees granted Frostburg State Teachers College the right to confer the Bachelor of Arts degree and the Master of Education.

1961 Our first black student (Leon Brumback) graduated.

1963 In July, we became Frostburg State College.

1964-79 We experienced significant growth during these fifteen years. Six residence halls were completed as well as eleven campus buildings including the Chesapeake Dining Hall, Framptom Hall, Fine Arts, Dunkle Hall, Lane Center, the Lewis J. Ort Library, the Physical Education Center, Hitchins Administration Building, and the Stangle Service Building.

1971 The Master of Science in Management Degree was first offered. This degree was replaced by the MBA in 1989.

1975 The Appalachian Environmental Laboratory – part of the Center for Environmental Science of the University System of Maryland – opened on our campus.

1986 The Nelson P. Guild Center was completed to house the Social Sciences and Business programs.

1987 In July, our institution was granted University status.

1988 We joined the University System of Maryland, which is comprised of 11 of the State’s 4-year institutions and one research institution.

1989 The first FSU Medallion was presented to Lewis J. Ort. Our second recipient was Governor William Donald Schaefer in 1990 and Gerald Arpino in 1994.

1991 Dr. Catherine Gira became the second woman president of our institution. Lillian Compton was president from 1945-55.

1994 The Performing Arts Center was completed. On April 24, the Joffrey Ballet performed in the new Center in celebration of its debut on our campus 37 years before.

1995 Bell Atlantic distance education classrooms were installed at Frostburg and the Hagerstown Center.

1998 The University celebrated its Centennial with a year-long series of events.

1999 The Center for Environmental Science’s new Appalachian Laboratory building opens.

2000 FSU was the first-ever recipient of the Corporation for National Service’s Higher Education Award for Leadership in National Service.

2002 Gunter Hall renovated and reopens.

2003 Compton Science Center and Edgewood Commons apartment complex open.

2005 FSU incorporates the Hagerstown Center’s programs into the new University System of Maryland at Hagerstown.

2006 Dr. Jonathan Gibraltor becomes the 14th president of Frostburg State University.

2008 First building, FSU Research Center, opens in ABC@FSU.

2012 First doctorate degree offered; FSU named “College of Distinction”; Sustainable Energy Research Facility (SERF) dedicated.
Gaining Admission

The University encourages applications from students prepared to join in the life of an intellectual community. First-year college students are granted admission on the basis of high school grade point average, performance on the SAT, completion of a college preparatory program, optional letters of recommendation, and an optional admissions essay. The University’s admissions policies are governed by the Policy on Undergraduate Admissions (III-4.00) of the Board of Regents of the University System of Maryland.

First Year Admissions Procedures

Applications for admission are available online at www.GoBobcats.frostburg.edu. Paper applications are available through your high school guidance office or by contacting the Admissions Office at FSUAdmissions@frostburg.edu or 301.687.4201.

If you attended a post-secondary institution after graduating from high school, you are considered a transfer student. You should review the transfer student application procedures and admission requirements listed in a separate section on the next page.

A non-refundable application fee is also required and can be paid online or with a check or money order.

As part of your application, you must provide the Admissions Office with an official copy of your academic records. Applicants may use the records request form included in the application. The University does not assume responsibility for requesting this information from your high school or any college you have attended.

Either the SAT or the ACT is required for admission. You should take the SAT or ACT in your junior or senior year of high school. All first-year applicants or transfer students with fewer than 24 transferable hours must have the results of the SAT/ACT sent to the Admissions Office. Frostburg State University’s SAT identification code is 5402. Frostburg’s ACT identification code is 1714.

Application Dates

Beginning on September 15, the admissions office will start accepting applications for the fall semester of the following year. The University may have to close admissions when no further space for students is available. Consequently, applicants from high school are encouraged to apply in the fall or early winter of the senior year.

The University accepts applications from first-year students who would like to begin in the spring semester, and admission is granted on a space-available basis.

High School GPA

First-year college applicants are granted admission on a rolling basis. Many admission decisions are made, consequently, on grades you have earned only through the end of the junior year. However, the first semester of your senior year can be pivotal in gaining admission and your remaining high school work must be successfully completed.

Performance on the SAT/ACT

Your performance on the SAT/ACT should be in the range that would normally predict success in college.

College Preparatory Program in High School

Entering first-year students must have 4 units of English; 3 units of social science/history; 3 units of biological and physical science in at least two different subject areas (with 2 of the units including a laboratory experience); 4 units of mathematics, including Algebra I, Algebra II and Geometry; and 2 units of a foreign language or, in Maryland, 2 units of advanced technology. Students who complete Algebra II prior to their final year must complete the four-year mathematics requirement by taking a course or courses that utilize non-trivial algebra.

If you have not taken the required courses, you may be admitted to the University with the understanding that courses in the deficient area(s) must be completed during the first year if you want to continue your studies.

Admission for Mature Adults

If you graduated from high school a minimum of three years prior to applying to FSU, you are excused from the SAT/ACT requirement. You still need to submit a transcript of your academic work, including the receipt of a high school diploma or GED.

Diagnostic Placement Tests

All entering first-time students and any transfer students not transferring Freshman Composition and/or a college-level math course, will take diagnostic placement tests in reading, writing and mathematics to determine appropriate placement.

If you score below predetermined standards on these examinations, you will be required to enroll in specified courses your first semester to develop your skills to a level necessary to be successful at the University.

Special Standards

Admission to specific University degree programs may require higher standards or be limited by opportunities to complete the courses required for that program.

Right to Refuse Applications

The Associate Vice President for Enrollment Management reserves the right to deny or revoke applications for admission or readmission of any applicant whose former record(s) and/or observed conduct is incongruent with the established guidelines for student behavior and academic responsibility at Frostburg State University.

Office of Admissions
114 Pullen Hall
301.687.4201 • FAX 301.687.7074
e-mail: FSUAdmissions@frostburg.edu
Admission for GED Recipients

Applicants who received a general equivalency diploma must show GED subtest scores of at least 50 in English composition, social studies, natural sciences and literature (reading) and a score of at least 60 in mathematics. They must earn the same minimum SAT scores as other applicants.

Admission of International Students

The University welcomes applications from undergraduate international students who demonstrate university-level language proficiency in English. Students with international credentials, those who have completed part or all of their secondary and/or tertiary level education outside the United States, must follow the guidelines below in preparing their application. More detailed information about F-1 and J-1 visa category requirements may be found on the University’s website.

Students who are already studying in the U.S. on an F-1 visa must provide all admissions documents and complete a “Transfer Eligibility” form in order to receive a new I-20. Exchange students who plan to study at FSU for only one or two semesters should contact the Center for International Education directly for information about receiving an I-20 issued by Frostburg State University before coming to Frostburg State University.

If you attended a post-secondary institution after graduating from high school, you are considered a transfer student. Applications for admission are available online at www.Gobobcats.frostburg.edu. In addition to completing an application for admission and paying the non-refundable application fee, you must also provide the Office of Admissions with official transcripts from each institution of higher education you have attended. Official transcripts are those that are sent directly from the sending institution to Frostburg State University.

Your academic records will be evaluated by the Admissions Office following the guidelines listed below. Review your transfer credit evaluation carefully and bring any questions or concerns to the attention of the Transfer Coordinator and your advisor within your first semester of enrollment at FSU. If you still have questions about the evaluation of transferable credits or the appeals process for this audit, please contact the Director of Admissions.

1) Ordinarily, you must have a 2.0 cumulative average on a 4.0 scale and must have earned a minimum of 24 transferable semester hours of credit.

- If you have attended more than one institution, the cumulative GPA will be computed on grades received in courses from all institutions attended.

- If you are a transfer student with fewer than 24 transferable credits, you must have a 2.5 minimum cumulative average and provide an official high school transcript and SAT scores to the Admissions Office prior to admission.

- However, if you would have been admitted to the University as a high school senior and have achieved a 2.0 cumulative grade point average at a Maryland community college, you are eligible for transfer regardless of the number of credits you have earned.

2) You may not transfer more than 70 credits from a community or junior college. These credits are normally limited to the first two years at the undergraduate level and half the baccalaureate degree program requirements.

Admission for Transfer Students

If you attended a post-secondary institution after graduating from high school, you are considered a transfer student. Applications for admission are available online at www.Gobobcats.frostburg.edu. In addition to completing an application for admission and paying the non-refundable application fee, you must also provide the Office of Admissions with official transcripts from each institution of higher education you have attended. Official transcripts are those that are sent directly from the sending institution to Frostburg State University.

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- However, if you would have been admitted to the University as a high school senior and have achieved a 2.0 cumulative grade point average at a Maryland community college, you are eligible for transfer regardless of the number of credits you have earned.

2) You may not transfer more than 70 credits from a community or junior college. These credits are normally limited to the first two years at the undergraduate level and half the baccalaureate degree program requirements.
3) You are limited to a maximum of 90 credits when transferring from other four-year colleges and universities.

4) You are required to complete at least half your academic major requirements at FSU. Additional requirements to complete a degree are listed in the Academic Program chapter.

5) When you transfer, grades earned at other institutions are not included in your FSU grade point average. The credits you earned transfer but the grades do not.

6) You must meet the graduation requirements of the Frostburg State University catalog in effect when you were enrolled as a first-year student at the sending institution.

If you had more than two sequential years of non-enrollment since enrolling in an institution of higher education, you must meet the graduation requirements of the FSU catalog in effect at the time you first enroll at Frostburg State University.

7) If you are admitted to degree candidacy while still enrolled at another institution, you must maintain the required cumulative grade point average and remain in good academic standing during your most recent semester at that institution. Failure to meet this requirement will result in cancellation of the University’s original offer of admission.

Transfer Policies
The Maryland Higher Education Commission has set policies for students transferring within the public higher education system in our state. These policies allow students in other state colleges and universities to plan a total degree program and make uninterrupted progress toward finishing that program if they transfer.

The complete text of the Maryland Higher Education Commission General Education and Transfer Policy is reprinted in the Policies chapter at the end of this catalog. To summarize, when you first transfer to Frostburg State University, if you have earned credit for a course that meets the general education requirements at a Maryland public higher education institution, you will receive general education credit at Frostburg State University, up to a maximum of 36 credits (from a two-year institution). Once you are a degree-seeking student at FSU, you can only transfer equivalents of the specific courses in the FSU general education program for general education credit.

If you are an undergraduate student applying for readmission after an absence of at least five calendar years, and you have earned credit for general education courses at a Maryland public higher education institution during your absence, you might receive general education credit at FSU. The evaluation of transfer credits occurs at the time of readmission; therefore, you must provide official transcripts before the start of the semester in which you’re being readmitted.

This general education transfer policy does not apply to students transferring from private institutions in Maryland or from non-Maryland institutions. Courses transferred from these institutions will be evaluated on a course equivalency basis.

If you have completed an associate’s degree or have completed 56 semester hours of credit at a Maryland community college with a cumulative grade point average of 2.0 or higher on a scale of 4.0, and if the credit is from a college or university parallel course, you will be given direct transfer to FSU.

If you have taken courses at a Maryland community college as part of a recommended transfer program leading to a baccalaureate degree, those courses will be applied to a related degree program at FSU.

Acceptance of Transfer Credit
Transfer credit may be awarded for successful completion of course work compatible with the Frostburg State University curriculum, as documented by official transcripts forwarded directly by the sending institution to the FSU Office of Admissions. Such credit normally will be transferred only from regionally accredited institutions or institutions that are candidates for regional accreditation and for course work completed during military service that has been evaluated in the American Council on Education’s Guide to the Evaluation of Educational Experiences in the Armed Services.

Credit earned at degree-granting higher education institutions that are not regionally accredited but that hold national or specialized accreditation recognized by the U.S. Department of Education; and at non-degree-granting institutions that are approved by the Maryland State Department of Education, the Maryland Higher Education Commission, or a state or local government agency authorized to approve curricula, will be considered for transfer only if an articulation agreement exists between Frostburg State University and the other institution or, at student request, on a case-by-case basis. If an individual review is requested, the student must provide the FSU Admissions Office a copy of the institutional catalog or program of study, and copies of course syllabi for those courses for which transfer credit is desired. The Admissions Office will evaluate this transfer credit in consultation with the FSU departments offering the courses.

Readmission
If you previously were admitted and attended the University but did not earn a degree and have been absent for one semester or more, you must submit an application for readmission. Contact the Admissions Office for a readmission application form. (See section on Leave of Absence in the Academic Regulations chapter of this catalog).

Restricted Grade Forgiveness Policy for Returning Students
If you are an undergraduate student applying for readmission after an absence of at least five calendar years, you may petition the Admissions Office to remove up to 16 credits and their corresponding course grades from the calculation of your cumulative grade point average. To earn this grade forgiveness, you must (1) consult with the chair of the department in which you are majoring and (2) file a petition specifying the course credits to be deleted. This petition must be filed at the time of readmission and before you register for classes.

To be eligible for this restricted grade forgiveness policy, you must re-enroll in course work at Frostburg State University. You may only use the restricted grade forgiveness policy for returning students once in your undergraduate career.
**Admission Procedures**

**Campus Visits**

The University does not require a campus visit for admission, but touring our facilities and speaking with students, faculty and administrators can give you a valuable perspective. Campus tours and personal interviews can be scheduled throughout the year. Contact the Office of Admissions between 8:30 a.m. and 4:30 p.m. to set up an appointment by calling 301.687.4201. You can also register for an Open House or schedule an appointment online.

**Residency**

Students enrolling at Frostburg State will be classified as in-state or out-of-state based on guidelines set by the Board of Regents of the University System of Maryland. This residency classification influences admission, tuition and other charges. Resident status is granted to students who have established permanent residency in Maryland based upon factors like living quarters, Maryland income tax payments, voter registration and a valid driver’s license. The complete Board of Regents’ Policy on Student Residency Classification, which fully explains the policy and the procedures for establishing in-state residency, is reprinted in this catalog’s chapter on policies and is available on the Board of Regents website: www.ums.edu/regents/bylaws/SectionVIII. Scroll to “Policy on Student Classification for Admission and Tuition Purposes VIII-2.70 (R).”

Residency status is determined for first-time entering students by the Office of Admissions. Students seeking a review of their residency status will be required to respond to a petition available through the Office of Admissions. Once you are enrolled at the University, residency status is determined by the Registrar’s Office. Students desiring a review of their residency status after enrollment can obtain the petition from the Registrar’s Office.

**Certificate Programs**

Degree-seeking undergraduates and non-degree-seeking community members may earn a certificate in specialized areas. Certificate programs are designed to provide specialized skills and knowledge that may enhance your undergraduate program and/or provide skills useful in employment. Undergraduate certificates include a minimum of 12 credit hours.

If you are not currently an FSU student, you may be admitted as a non-degree-seeking student to complete a certificate program. You must file an admission application and present evidence that you have a high school diploma or GED, or that you have been approved to participate in the dual enrollment high school/college program. Particular certificate programs may have additional admission requirements. Credits earned towards a certificate may later be applied to a degree if you choose to request, and qualify for, admission as a degree-seeking student.

**Academic Common Market**

Frostburg State University participates in the Academic Common Market (ACM) of the Southern Regional Education Board (SREB). For more than 35 years, ACM has enabled students to pursue out-of-state degrees in specialized fields at discounted tuition rates, through agreements among the states, colleges and universities. Students may participate if their chosen degree program is approved for inclusion by SREB and eligible for residents of their home state.

To qualify, students must be a resident of one of the 16 SREB states, select a program eligible for residents of their home state, complete the admission process at the institution offering the eligible ACM program and be certified as a resident of their home state by contacting the coordinator for their state of residence.

As of May 2015, the following FSU programs have been approved for inclusion:

- B.A./B.S. in Recreation and Parks Management with Adventure Sports Concentration (SC, VA, WV)
- B.A./B.S. in Recreation and Parks Management with the option of a minor, an associate degree or a concentration only (DE, SC, VA, WV)
- B.A./B.S. in Theatre with Acting Track (DE)
- B.S. in Ethnobotany (eligible states to be determined)
- B.S. in Interpretive Biology and Natural History (eligible states to be determined)
- M.S. in Recreation and Parks Management (DE)
- M.S. in Wildlife/Fisheries Biology (DE)

Programs may be added to, or deleted from, the inventory at any time. Currently enrolled students continue to study at resident rates if a program is deleted during their academic careers.

For further information, contact your state’s higher education agency, the Southern Regional Education Board (www.sreb.org/page/1304/academic_common_market.html, 404.875.9211), the Maryland Higher Education Commission (410.260.4585, toll-free 800.974.0203) or the Associate Provost and FSU Academic Common Market Coordinator (301.687.4212).

**Senior Citizen Golden Identification Card**

Senior citizens may qualify for a Golden Identification Card which allows you to register each semester for up to three courses for credit without paying tuition. You may enroll only during late registration and on a space-available basis. Although the late registration fee is waived for senior citizens, you must pay all other fees.

To qualify, you must be

- A resident of Maryland
- A US citizen or able to show a Resident Alien card
- Sixty years of age by the beginning of the term for which you are applying
- Employed no more than 25 hours a week.

If you qualify, contact the Admissions Office for a Senior Citizen Application Form for Tuition Waiver.
Expenses, Financial Aid & Scholarships

Expenses

This information applies to the academic year 2015-2016 only. Please see appropriate Academic Schedule Booklets for 2016-2017 rates. 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 such changes are deemed necessary by the University and the University System of Maryland Board of Regents.

Tuition

Tuition for legal residents of Maryland is $3,107 per semester plus all other applicable fees at the University. Tuition for out-of-state students is $9,157 per semester plus all other applicable fees at the University. Tuition for regional residents* is $6,844 per semester plus all other applicable fees at the University.

Evening and part-time tuition is $257 per credit hour for resident undergraduate students, $390 for regional resident* undergraduates, $514 per credit hour for non-resident undergraduate students, $382 per credit hour for resident graduate students, and $491 per credit hour for non-resident graduate students. Doctoral tuition per credit hour is $526 for resident students and $658 for non-resident students.

Summer tuition is $257 per credit hour for resident undergraduate students, $390 for regional resident* undergraduates, $514 per credit hour for non-resident undergraduate students, $382 per credit hour for resident graduate students and $491 per credit hour for non-resident graduate students. Doctoral tuition per credit hour is $526 for resident students and $658 for non-resident students.

Students taking courses for audit or pass/fail or courses without credit designation will receive assigned equivalency credit hours for tuition and fee purposes.

Tuition and Fees for Collaborative Engineering Programs - Students enrolled in the electrical or mechanical engineering programs offered by FSU in collaboration with University of Maryland, College Park are subject to a different tuition and fee arrangement due to the unique nature of the program. During the freshman and sophomore years, students pay FSU tuition and fees. After completing 45 credits of designated course work, students will apply for formal acceptance into UMCP’s Clark School of Engineering and will be considered UMCP students for the remainder of the program. Students will then pay both UMCP tuition rates and FSU fees to the FSU University and Student Billing Office.

Mandatory Fees

The following paragraphs explain how the University uses the mandatory fees which

<table>
<thead>
<tr>
<th>Undergraduate Tuition &amp; Fees 2015-2016</th>
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<tbody>
<tr>
<td><strong>TUITION - FULL TIME (12 cr. or more)</strong></td>
</tr>
<tr>
<td>Maryland Residents $3,107</td>
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<tr>
<td>Out-of-State Residents 9,157</td>
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<tr>
<td>Regional Residents* 6,844</td>
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<tr>
<td><strong>MANDATORY FEES</strong></td>
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<tr>
<td>Technology Fee $86</td>
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<tr>
<td>Activities Fee 158</td>
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<tr>
<td>Athletic Fee 431</td>
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<tr>
<td>Auxiliary Facilities Fee 270</td>
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<tr>
<td>Student Union Operating Fee 159</td>
</tr>
<tr>
<td>Transportation Fee 18</td>
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<tr>
<td>Sustainability Fee 15</td>
</tr>
<tr>
<td><strong>Total Fees</strong> $1,137</td>
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<tr>
<td><strong>TOTAL TUITION AND FEES</strong></td>
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<tr>
<td>Maryland Residents $4,244</td>
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<tr>
<td>Out-of-State Residents 10,294</td>
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<tr>
<td>Regional Residents* 7,981</td>
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<tr>
<td><strong>ROOM CHARGES</strong></td>
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<tr>
<td>Frederick, Westminster double $2,104</td>
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<tr>
<td>All other halls double 2,055</td>
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<tr>
<td>small single 2,717</td>
</tr>
<tr>
<td>large single 2,948</td>
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<tr>
<td><strong>BOARD CHARGES</strong></td>
</tr>
<tr>
<td>Gold Plan with $200 bonus $2,232</td>
</tr>
<tr>
<td>Silver Plan 19 meals/week w/$100 bonus 2,076</td>
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<tr>
<td>14-meal with $100 bonus 1,992</td>
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<tr>
<td>12-meal with $250 bonus 2,069</td>
</tr>
<tr>
<td>10-meal with $75 bonus 1,739</td>
</tr>
<tr>
<td>Super 15 Plan with $300 bonus* 2,383</td>
</tr>
</tbody>
</table>
| **Total Tuition, Fees, Room and Board***
| Maryland Residents $8,731 | $8,731 | $17,462 |
| Out-of-State Residents 14,781 | 14,781 | 29,562 |
| Regional Residents* 12,468 | 12,468 | 24,936 |

*Regional Rate: Residents of Pennsylvania, Virginia, West Virginia and Ohio living within 120 miles of Frostburg State University in Frostburg, MD.

**Default residential meal plan

***Based on $4,208 room rate and $4,766 board rate subject to change

Room and Board

The cost for room and board for each University residence hall student varies from $7,588 to $10,662 per year. Room contracts are binding for one academic year (fall and spring semesters). All students living in the residence halls are required to purchase a meal ticket for the University dining hall. See the chart below for detailed room and board options and prices.

Mandatory Fees

The following paragraphs explain how the University uses the mandatory fees which
OTHER FEES & EXPENSES

Tuition Pay Plans $65-$80
Application Fee, one time only $30
Career Services Credential Fee $20
Directed Practice Fee $100
Duplicate Copy $3
Late Registration Fee $30
Late Payment Fee $30
Lost ID Card $20
Private Music Fee $150 per credit
Returned Check Fee $30
Reissue Check Fee $30
Study Abroad Admins. Fee $150
Vehicle Registration - day $40 per year
- evening only $10 per year
In-House Deferment $150 per semester

SPECIAL COURSE WORK FEES

Accounting (ACCT 305) $25
Art (ART 110) $10
Art (ART 100, 111, 301, 302, 360, 370, 380, 408, 415, 430, 460) $15
Art (ART 207, 209, 212, 216, 240, 412, 416) $25
Art (ART 236, 307, 407, 414) $30
Art (ART 221, 232) $35
Art (ART 440, 602, 640) $40
Art (ART 202, 235, 435, 635) $45
Art (ART 402, 421, 432, 621, 622, 632) $50
Art (ART 452) $60
Biology (BIOL 109, 149) $20
Business Admin. (BMIS 320) $25
Chemistry (CHEM 100, 113, 201) $20
Chemistry (CHEM 202, 304, 305, 311, 320, 411, 420, 421, 424, 425, 445, 466, 457, 493, 499) $25
Computer Science (COSC 100, 110, 220, 330) $25
Geography (GEOG 103, 113, 207, 240, 430, 433, 470) $20
Interdisciplinary Studies (IDS 150 Outdoor Leadership) $115
Math 20.1 (MATH 20.1) $50
Math 20.1 (MATH 20.1, 227, 237) $50
Math 30.1 (MATH 30.1, 227, 237, 313, 314, 405, 499 audio) $50
Math 30.1 (MATH 311, 487, 488, 489 video projects) $50
Mathematics (MATH 119) $20
Mathematics (DVMT 095, 100) Web $40 - 100
Music 315, 319, 321, 327, 329, 330, 331, 335, 336, 337, 339, 340 $10
Music Applied 190, 493 $150
Music Applied 490 $300
Nursing (NURS 401, 402, 403, 404, 405, 406, 491, 495, 496) $6 per cr/hr
Orientation (ORNE 101) $120
Physical Science (PHSC 101, 203) $20
Physics (PHYS 216, 281) $20
Psychology (PSYC 151, 151) $10
Sociology (SOC 310, 320, 320, 330, 331, 336, 337, 339, 340, 340) $10
Music Applied 190, 493 $150
Music Applied 490 $300
Nursing (NURS 401, 402, 403, 404, 405, 406, 491, 495, 496) $6 per cr/hr
Orientation (ORNE 101) $120
Physical Science (PHSC 101, 203) $20
Physics (PHYS 216, 281) $20
Psychology (PSYC 151, 151) $10
Sociology (SOC 310, 320, 320, 330, 331, 336, 337, 339, 340, 340) $10

STUDENTS PAY FOR...
the beginning of the semester during which student teaching is scheduled.

**Advance Fees and Tuition Deposit**

Applicants pay a $30 non-refundable application fee when they apply to the University. This fee is sent directly to University and Student Billing at the same time the application is mailed to the Admissions Office. If you are accepted for admission, you will be asked to pay a non-refundable tuition deposit of $150. Your letter of acceptance will contain a bill for this fee which must be paid within thirty days and which acts as a binding agreement for admission. This $150 tuition deposit is non-refundable; but when you enroll as a student, it will be deducted from tuition owed to the University.

**Residence Hall Damage Deposit**

You will be charged a $100 damage deposit each fall or your first spring semester. Money will be deducted from this deposit for the following:

1. **damages to your room and room furnishings;**
2. **damages to common areas within your residence hall if these damages are unreported and/or unclaimed. These damages will be charged collectively to the residents.**

If your deposit drops below $25, you will be sent a bill to replenish your deposit to the $100 level.

The balance of this damage deposit remains in your account until the end of the academic year or until you leave the residence halls for any reason. Because this refund is processed through the State Comptroller’s Office, it will be refunded at the end of the semester in which you withdraw.

**Payment of Fees**

Make all checks or money orders payable to Frostburg State University for the exact amount on the bill you receive. All fees must be paid prior to the beginning of each semester or before the date shown on the statement of fees. Students will not be allowed to register for the next semester. Failure to meet the due date may result in the cancellation of the student’s schedule. A previous balance results in the grades and transcripts of the student being withheld until full payment is made.

Students failing to withdraw or make payment will be charged a $150 defferment fee, a $30 late payment and a $30 late registration.

**Refund Schedules**

<table>
<thead>
<tr>
<th>Fall and Spring Semester</th>
<th>100% tuition refunded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the end of each registration period</td>
<td>100% tuition refunded</td>
</tr>
<tr>
<td>Before the 15th calendar day after the official start of classes for that session</td>
<td>80% tuition refunded</td>
</tr>
<tr>
<td>From the 15th day until the end of third week after the official start of classes</td>
<td>60% tuition refunded</td>
</tr>
<tr>
<td>During the 4th week after the official start of classes</td>
<td>40% tuition refunded</td>
</tr>
<tr>
<td>During the 5th week after the official start of classes</td>
<td>20% tuition refunded</td>
</tr>
<tr>
<td>At the end of the 5th week after the official start of classes</td>
<td>0% tuition refunded</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fee Refund Schedule (including summer session)</th>
<th>0% refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application fee</td>
<td>0% refund</td>
</tr>
<tr>
<td>Board fee</td>
<td>Up to mid-semester prorated on a weekly basis plus one week</td>
</tr>
<tr>
<td></td>
<td>After mid-semester 0% refund</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Sessions</th>
<th>100% tuition refunded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the end of the summer registration period</td>
<td>100% tuition refunded</td>
</tr>
<tr>
<td>Before the end of one-fifth of the length of the session, but in no case beyond the 7th calendar day of the session</td>
<td>80% tuition refunded</td>
</tr>
<tr>
<td>Before the end of two-fifths of the length of the session</td>
<td>40% tuition refunded</td>
</tr>
<tr>
<td>At the end of two-fifths of the length of the session, but in all cases beginning with at least the 15th calendar day of the session</td>
<td>0% tuition refunded</td>
</tr>
</tbody>
</table>

*In the case of special courses of short duration (i.e., one week or less), this policy will be applied on a pro-rata basis in a manner consistent with the policy.

**Non-refundable Fees**

The following fees are non-refundable after the end of each registration period including the summer session:

- Room fee
- Activities fee
- Athletic fee
- Special Instruction Fee
- Auxiliary Facilities fee
- Private Music fee
- Student Union Operating fee
- Course/class fees
- Directed Practice fee
- University fee
- Vehicle Registration fee

**Deferred Payment Plans**

**The TuitionPay Plan From Higher One**

TuitionPay is the interest-free, debt-free way to spread tuition payments over a number of months. The TuitionPay Plan is not a loan, so there are no interest payments, only a low annual enrollment fee.

The Plan allows you to break down your education expenses into easy-to-manage installments, rather than one lump-sum payment. It’s simple and convenient.

**How to Get Started**

Just visit https://tuitionpaymentplan.com/frostburg, click “Enroll Now” and in a few easy steps your enrollment will be complete. You can also complete and mail a paper application.

**Fast, Easy Payment Options**

TuitionPay is all about convenience. That’s why we offer you the option to make your payments online* by eCheck or credit card, or by mail with your monthly statement.

Or if you prefer the worry-free simplicity of automatic deductions from your checking or savings account, you can sign up for recurring payments with our ACH plan.

**Manage Your Account Online**

Once you’re enrolled, you can set up your own InfoLink account, which allows you to view your account information and status, and make payments any time — day or night.

There’s no easier way to pay tuition than with the TuitionPay Plan. So enroll today!

For more information, visit https://tuitionpaymentplan.com/frostburg, or call 1.800.635.0120 to speak with a TuitionPay consultant.

*No check processing fees when you pay online on or before the due date.

**Charges for Collection of Unpaid Bills**

If a student’s account is not promptly paid, the University will turn it over to the Maryland State Central Collection Unit and a 17%-percent collection fee will be added to the bill. If fur-
other collection action is needed, an outside agency will be retained and those charges will also be billed to the student. The state may also withhold any refund due to the student from the Maryland State Income Tax and apply it to the overdue account.

**Refund Policy**

The following regulations govern refunds available upon withdrawal from the University or when other changes of status take place. To withdraw from the University, you must complete an official withdrawal through the Registrar’s Office before you are entitled to any refund. Because refund amounts change depending upon when you file, the date used to determine refunds will be the date on which you submit the final filing or change of status to the Registrar’s Office.

If you register for a full schedule (12 credits or more) and you drop courses to 11 credits or fewer after the end of the registration period, you are not entitled to a refund based on a credit-hour charge.

Students dismissed for disciplinary reasons are not entitled to any tuition or fee refund.

**Refunds from Financial Aid**

FSU processes refunds through the University’s Student Billing office after it posts to the student account from Financial Aid. Refunds are processed after the University’s charges have been cleared. If you have a Parent Plus Loan (PLUS) these funds are applied to your student account first. If there is a credit balance from the PLUS loan after the entire bill is paid, the parent may elect to have the funds refunded to you.

State funds, scholarships, third party payments and personal overpayments require that any U.S. citizen have a social security number in the PAWS system before the funds may be issued.

Overpayments due to a credit card transaction are refunded to the credit card whenever possible.

**Student Refund Policy for Title IV Recipients**

Federal regulations mandate a student refund policy for Title IV recipients. The policy requires institutions to provide a pro-rata refund to any new student withdrawing before 60% of the enrollment period has elapsed. Information in regard to the calculation process or details of the policy may be obtained from the Financial Aid Office, Pullen Hall, 301.687.4301.

**Personal Funds**

If your balance reflects a credit of personal funds, you must write a request for a refund.

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**Financial Aid**

The University program of financial aid helps students who have limited financial resources. We make every effort to aid qualified students in need of financial assistance through loans, grants, scholarships, and part-time employment.

Our Financial Aid Office operates with an open-door policy. We provide financial aid information to students and their families and assist them with the application process.

**Application Process**

When applying for financial aid through the University, you must complete the Free Application for Federal Student Aid (FAFSA). This is the only application necessary for Federal and general State aid. The Free Application for Federal Student Aid includes detailed instructions and is available online at www.fafsa.gov. In order for Frostburg State University to offer you financial aid, you will need to include FSU on your FAFSA using our school code (002072).

- You must reapply for financial aid each year.

**Types Of Financial Aid**

The major federal and state financial aid programs administered by Frostburg State University are described on the following pages. For more detailed descriptions of the programs, see the Financial Aid and Scholarship website: www.frostburg.edu/aid.

**Federal Aid**

**Grants**

- Grant money does not have to be repaid.

**Office of Financial Aid**

114 Pullen Hall: 301.687.4301
FAX 301.687.7074

**Federal Pell Grant Program**

This program provides financial aid to all eligible undergraduates and is intended to be the base of a student’s total financial aid package. Apply for the Federal Pell Grant by completing a Free Application for Federal Student Aid. The applicant will receive a Student Aid Report via email indicating eligibility after submitting the FAFSA.

**Federal Supplemental Educational Opportunity Grant Program (SEOG)**

Criteria established by the Federal Government states that you must be eligible for a Federal Pell Grant in order to receive Federal SEOG funds. You must submit the Free Application for Federal Student Aid to determine eligibility.

**Teacher Education Assistance for College and Higher Education (TEACH) Grant Program**

The TEACH Grant program provides funds for students who want to teach in a high need field in a high need area. There are a number of additional tasks you must complete to obtain the TEACH grant; therefore, you are required to meet with a financial aid counselor.
### Educational Expenses

<table>
<thead>
<tr>
<th></th>
<th>In-State Resident</th>
<th>Regional Resident**</th>
<th>Out-Of-State Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition*</td>
<td>$6,214</td>
<td>$13,688</td>
<td>$18,314</td>
</tr>
<tr>
<td>Fees*</td>
<td>2,274</td>
<td>2,274</td>
<td>2,274</td>
</tr>
<tr>
<td>Room and Board *</td>
<td>8,574</td>
<td>8,574</td>
<td>8,574</td>
</tr>
<tr>
<td>Books</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>Transportation</td>
<td>750</td>
<td>750</td>
<td>950</td>
</tr>
<tr>
<td>Personal</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>

**Regional Rate: Discount for residents of Pennsylvania, Virginia, West Virginia and Ohio living within 120 miles of Frostburg State University in Frostburg, MD.

*Amounts subject to change.

The above figures are based on a 9-month academic year. Expenses for tuition, fees, room and board are subject to change. Room and board cost is based on double room in a traditional hall and Gold meal plan. Books, transportation, and personal expenses are estimates only and students should calculate these items based on their own circumstances. Commuter bills will only reflect charges for tuition and fees.

### Work

**Federal Work-Study Program** - This federally-funded program provides recipients with a paid work experience as part of the financial aid package. Employment may not exceed 20 hours per week while classes are in session, and 40 hours per week during other periods. Most students work 5-8 hours per week in jobs that, in many cases, are related directly to their fields of study. Minimum wage laws apply. You must submit the Free Application for Federal Student Aid to apply.

In addition, the University offers students an opportunity to be employed in community service positions through this program.

### Federal Loans

A word of caution at the outset: a loan is money borrowed and MUST be repaid at a specified time in the future, under the terms specified in the promissory note that is signed before you receive your first loan disbursement. Before signing the promissory note, be sure you thoroughly understand your rights and responsibilities relative to any loan received.

#### Federal Stafford Loans

**NOTE:** In order to borrow through any of the following Direct Loan Programs, you must be enrolled for at least 6 credits (and those credits must be leading toward a degree).

**Federal Subsidized Stafford Loan**

The Federal Subsidized Stafford Loan program enables you to borrow directly through the federal government. The interest rate is fixed at 4.66% for 2014-15 award year (rate subject to change). Qualifying for a Federal Subsidized Stafford Loan means that the federal government will pay the interest on your loan while you are enrolled at least half-time. Six months after you terminate your education or cease to be enrolled half-time, repayment of your loan(s) begins. Repayment, in most cases, must be completed within 10 years.

Freshmen may borrow $3,500 per year; sophomores, $4,500; and for those who have attained junior class standing, $5,500 per year. However, the amount you may borrow in any given year may not exceed the educational costs as certified by the Financial Aid Office. The aggregate amount one may borrow as an undergraduate cannot exceed $31,000.

To apply for a Federal Subsidized Stafford Loan, you must complete a Free Application for Federal Student Aid and other forms as required.

All first-time Federal Subsidized Stafford Loan borrowers must complete an entrance interview and a Master Promissory Note which can be completed at www.studentloans.gov. In addition, all Federal Subsidized Stafford Loan borrowers must complete an exit interview before graduation, withdrawal or leaving FSU, even though they may plan to return at some time in the future.

Repaying your student loan is an obligation. Failure to repay your student loan(s) on the required repayment schedule will result in default. One of the many consequences of being in default is that FSU has the right to, and will, withhold the processing of all academic transcripts.

#### Federal Unsubsidized Stafford Loans

Same terms and conditions apply as Federal Subsidized Stafford Loans, except that the borrower is responsible for interest that accrues while he/she is in school at a fixed 4.66% rate for 2014-15. This loan program is open to students who may not qualify for Federal Subsidized Stafford Loans or may qualify for only partial Subsidized Stafford Loans. To apply for a Federal Unsubsidized Stafford Loan, you must first complete the Free Application for Federal Student Aid (FAFSA) and other forms as required.

The borrowing limit for dependent students is $2,000 per year. For independent students, additional borrowing levels exist.

**Note:** Eligibility for borrowing through both Subsidized and Unsubsidized Stafford loan programs during the summer is limited. If eligible to apply, an applicant must be enrolled for at least six credits per session and the credits taken must be leading toward a degree. Check with the Financial Aid Office regarding loan availability during summer sessions.

**Special Note:**

Federal regulations require your written permission to deduct miscellaneous institutional charges such as library fees from your annual financial aid. You must sign and complete a permission form. If at all possible, you should submit this permission form prior to billing. If you choose not to complete the permission form, you will be responsible for paying any miscellaneous obligation(s) from personal funds by the bill payment date. The University may not apply your loan funds to any charge(s) assessed to you in a prior year.

- FSU reserves the right to withhold academic transcripts from students who have defaulted on their student loans.

### State Aid

**Maryland State Scholarships**

The State of Maryland provides funding for the following major state scholarships:

- Howard Rawlings Educational Assistance Grant
- Howard Rawlings Guaranteed Access Grant
EXPENSES, FINANCIAL AID & SCHOLARSHIPS

FSU Grants

Criteria:

- You must be a U.S. citizen or eligible non-citizen.
- You must demonstrate financial need through the federal application process.
- You must file the FAFSA as soon after January 1 as possible. The Financial Aid Office must receive the results by March 1.

Students must meet academic standards to be considered for this award.

State Student Work

This program provides a limited number of jobs on campus for students who are not eligible for the Federal Work-Study Program. These positions are available in every academic, administrative and auxiliary area. Interested students should contact the Financial Aid Office during the first two weeks of classes.

Financial Aid for Collaborative Engineering Programs

Students enrolled in the mechanical engineering program offered by FSU in collaboration with University of Maryland, College Park are subject to a different financial aid arrangement due to the unique nature of the program. During the freshman and sophomore years, students are eligible to apply for financial aid through FSU. After completing 45 credits of designated course work, students formally apply for admission into UMCP’s Clark School of Engineering and are considered UMCP students at that time. At that point, a student must reapply for federal or state aid through UMCP’s Office of Student Financial Aid. For assistance in the application process, contact FSU’s Engineering Program Coordinator, Dr. Yi-Zun Julie Wang, at 301.687.3208.

Refund/Repayment Policy

See Title IV Refund Policy in the Fees section of this chapter.

Implications of Withdrawal From the University

All students who withdraw or are dismissed from the university (including unofficial withdrawals) and attend less than 60% of the enrollment period (semester), will have their Title IV federal financial aid prorated based on the actual days of attendance. Therefore, before a student considers withdrawal, he/she should meet with a financial aid counselor to determine the financial impact on his/her federal financial aid. Title IV Federal aid includes Pell Grant, Supplemental Educational Opportunity Grant (SEOG), Teacher Education Assistance for College and Higher Education (TEACH) Grant, Stafford Loans (Subsidized and Unsubsidized), and Parent Loan to Undergraduate Students (PLUS).

Under this policy, the Financial Aid Office will determine the percentage of Title IV aid earned based on the length of enrollment. Once determined, the student may be responsible for charges that were once covered by Title IV aid. In some cases, a student may have to repay a portion or all of his/her refund as a result of withdrawing before 60% of the enrollment period elapses. After the unearned portion of financial aid has been established, the funds will be returned to the federal programs in the following order: Unsubsidized Stafford Loans, Subsidized Stafford Loans, Federal Perkins Loans, Federal PLUS Loans, Federal Pell Grants, Academic Competitiveness Grant (ACG), National Science and Mathematics Access to Retain Talent Grant (SMART), Teacher Education Assistance for College and Higher Education (TEACH) Grant and Federal Supplemental Educational Opportunity Grants. In cases where a student is receiving institutional funds, he/she should check with the Financial Aid Office for policies concerning these awards.

Satisfactory Progress Standards (SAP)

The United States Department of Education mandates that Frostburg State University has an established Satisfactory Academic Progress policy for financial aid recipients. The policy must be qualitative and quantitative. The policy must be at least as strict as the academic policy governing students not receiving financial aid. If a student completes the Free Application for Federal Student Aid (FAFSA), he or she is subject to these regulations.

Qualitative Requirement

FSU requires students to have a 2.0 cumulative grade point average to graduate. The graduated standard for the minimum GPA throughout the academic program is as follows:

<table>
<thead>
<tr>
<th>Total Credits Earned (including transfer credits)</th>
<th>0-14</th>
<th>15-29</th>
<th>30-44</th>
<th>45-59</th>
<th>60- above</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>1.40</td>
<td>1.60</td>
<td>1.80</td>
<td>2.00</td>
<td></td>
</tr>
</tbody>
</table>

Students need to be aware that they could be required to appeal to both the Provost’s Office to remain in school and to the Financial Aid Office to maintain financial aid eligibility.

Quantitative Standards

Minimum Passing Requirement

Students must complete 67% of all courses attempted including courses transferred to FSU in order to meet SAP regulations. To determine the completed average, a student needs to add all attempted hours (including credits transferred to FSU) then add all the hours of completed courses (including credits transferred to FSU) then divide the completed credit hours by the attempted credit hours.

6 completed credit hours / 12 attempted credit hours = 50% completion rate

Maximum time to completion

FSU students cannot attempt more than 180 credits for a first bachelor’s degree and no more than 240 for a second bachelor’s degree.

Attempted credits include the following grades A, B, C, D, F, P, N, FX, W, WF, NC, NR, CS, I, AP, CE, CL, IB, PT and all transfer credits.

Completed credits include the following grades A, B, C, D, P, AP, CE, CL, IB, PT and all transfer credits.

All students will be evaluated at the end of each semester (Summer, Fall, Intersession and Spring). Students will need to review the progress rules and their transcript when making enrollment decisions.

Frostburg will now be required to evaluate and measure students by standards established in the federal law. Each student will have one of four statuses:

1. Meets all components of the SAP standards (eligible to receive financial aid)
2. Academic Warning (explanation below)
3. Probation (explanation below)

4. Does not Meet Standards (not eligible to receive financial aid)

**Academic Warning**

Students who do not meet standards for the first time in their academic career will be placed on academic warning. A warning is assigned to a student who fails to meet SAP but is allowed to continue to receive Title IV aid for one additional payment period (semester).

**Probation**

Students who do not meet SAP standards after one payment period on Academic Warning will be denied financial aid. However, students will then have the right to appeal. If the appeal is granted, the student will be placed on probation and continue to receive Title IV aid for one additional payment period.

Appeals will be granted for the following circumstances:

1. Students who demonstrate the following extenuating circumstances: death of a relative, injury or illness of the student, or other special circumstances;

2. The school has determined that the student will be able to meet SAP standards after the subsequent payment period or;

3. An academic plan had been established by the student and/or his or her advisor to meet graduation requirements and the student continues to follow the academic plan.

**Scholarships**

Frostburg State University is firmly committed to academic excellence and we strive to recognize outstanding students. A number of institutional scholarships have been established through the auspices of the Frostburg State University Foundation to reward academic achievement, as well as service in the community. Funds for these scholarships are provided by private and institutional sources.

In addition, nearly every academic department at FSU offers departmental scholarships. The eligibility criteria for these scholarships vary. Many are based on academic performance, others on need, still others on the program of study or a combination of requirements. Scholarships are awarded on an annual basis. Students must meet satisfactory progress standards and scholarship selection requirements each semester as defined in the scholarship brochure or in the information provided with your award notification.

The Financial Aid Office publishes a list of scholarships that describes all of the scholarships and the criteria to be considered, as well as the contact person and deadline date for each award. Contact the Financial Aid Office at 301.687.4301 for information or review online at [www.frostburg.edu/scholarships](http://www.frostburg.edu/scholarships).

In addition, Frostburg State University offers academic scholarships which are screened by our Admissions Office. These scholarships are for entering first-year and transfer students who demonstrate outstanding academic ability. The academic scholarships will be part of the published list of scholarships or you may contact the Admissions Office at 301.687.4201.
Registering for courses at Frostburg State University is a contractual agreement, whereby you agree to comply with all laws, rules and regulations applicable to your registration, payment of fees, enrollment and attendance. The rules and regulations that comprise the terms and conditions of this contract are contained in the FSU catalog in effect during the years of your enrollment.

In addition to reading, agreeing with and accepting all of the terms and conditions set forth in the FSU catalog, you must specifically acknowledge the following:

1. All fees and other University expenses are due on the date listed in the written registration materials and on the FSU website for each semester. A late payment fee is assessed for all students who have not completed the payment or made payment arrangements by the due date. Students may enroll in a payment plan through FSU’s third party provider or the FSU in-house payment plan for summer and intersession. More information about payment plans is available on the FSU website and in the Office of the Bursar.

2. It is the student’s responsibility to cancel their registration by dropping all courses before the end of the registration period if proper financial arrangements have not been made. The student is responsible for ensuring that he or she is no longer enrolled.

3. It is the student’s responsibility to complete all of the requirements for the Office of Financial Aid to disburse, provide third-party documentation, enroll in an approved payment plan, or submit payment, by the billing due date each semester. Any student who has not completed payment or joined a payment plan by the 10th business day of the semester will be charged a fee and placed into a payment plan that splits the amount due into two payments. Additionally, the student will be assessed a late payment and a late registration fee. Each subsequent late payment will result in an additional fee.

4. It is the student’s responsibility to review their bill and submit payment in a timely manner. Students are notified each semester through their Frostburg account email that the e-bill is available for viewing. The student must then enroll in the E-bill system via their PAWS account. The student may also add another payer to the E-bill. Both the student and the additional payer will receive an email each time a bill is generated.

5. FSU reserves the right to withhold future services (registration, transcript request, diploma, etc.) to persons who have any outstanding obligations with the University or who has an account that was submitted to the Maryland State Central Collection Unit.

6. In the event that financial aid is reduced or cancelled, or in the event the student has not met the specified requirements for receiving such aid, the student will become responsible for the full balance of outstanding charges.

7. If payment is in the form of a check (or E-Check) and the check is returned by the bank for any reason, a $30 fee will be charged to the account. If payment is not made, the student’s account may be submitted to the Maryland State Central Collection Unit.

8. Students leaving FSU prior to the 60% point in the semester, officially or unofficially, are obligated to return the federal aid received for that semester in accordance with the University’s Return of Title IV Funds Policy. Failure to return that portion of federal aid received may result in the amount owed being transferred to the Maryland State Central Collection.

9. Any debt owed to FSU as a result of the student’s failure to make required payments or failure to comply with the terms of the applicable program as governed by the FSU catalog will be a breach of the terms and conditions of this contract. Failure to respond to demands for payment made by FSU may result in such debts being transferred to the Maryland State Central Collection Unit.

10. Any debts transferred to the Maryland State Central Collection Unit will be assessed a 17% collection fee at the time of transfer and this information will become part of a student’s credit report.

ONCE YOU REGISTER FOR COURSES, YOU ARE AFFILIATING WITH FROSTBURG STATE UNIVERSITY (FSU), AND THAT YOU ARE A PARTY TO A CONTRACT WITH FSU AND TO THE TERMS AND CONDITIONS DESCRIBED ABOVE.

If you have any question regarding this Financial Responsibility Policy, please e-mail the Bursar’s Office at billingoffice@frostburg.edu or call the Bursar’s Office at 301.687.4321.
Residence Life

The Office of Residence Life provides FSU students with a safe and enjoyable living environment conducive to academic success, community development and personal growth. Through campus collaboration, the staff promotes scholastic achievement, encourages respect for self and others and prepares students to explore their place in the larger community.

Residence hall handbooks and The Pathfinder, the University’s student handbook (available online at www.frostburg.edu/pathfinder), provide detailed information about living on campus. Information and handbooks are available by contacting 301.687.4121.

Students must apply for housing online before they will be assigned a room. Housing is assigned to new students on the basis of the date they pay their advanced fee deposit as long as online application is made by July 1 for the fall semester or January 15 for the spring semester. The link to apply for housing is www.welcome-mat.net/frostburg_terms and may also be found on the Residence Life website, www.frostburg.edu/housing.

Residential Options

Each year, Residence Life offers a number of special interest housing options from which to choose. These options bring together students with common interests or goals and serve to enhance students’ adjustment to college life. Listed below are some of the options presently available:

First Year Experience Program:

Residence Life Staff in five of the traditional residence halls in our uphill area offer special support and activities for new students in making the transition from high school to college life. Students have the option of attending frequent in-hall programs which offer information and resources on topics of critical importance to college students. FYE participants benefit from lower staff-student ratios and a heightened sense of community with other new students.

S.T.E.M. Program:

Freshmen interested in exploring majors in Science, Technology, Engineering, or Math are welcome to request assignment in S.T.E.M. This program provides a unique opportunity to develop relationships with peers, mentors, and faculty in these disciplines. The community of S.T.E.M. majors benefit from study and tutoring sessions and enjoy close proximity to Compton Science Center, where many of their classes are held. While specifically for S.T.E.M. majors, Sowers is also part of the FYE Program.

bWell:

bWell is a wellness-themed learning community in association with the University’s “CHILL” program (Creating Healthy, Informed, Lasting Lifestyles). In promoting the aims of CHILL, programs and other resources are made available to residents in order to support their physical fitness, nutrition, and stress management. In addition, the community has a live-in wellness mentor and provides substance-free housing for its residents.

Honors:

First-year and upper-class residents who are accepted into the Honors program may apply to live in specially designated areas featuring the opportunity for students to have a single room. In addition to the standard online housing application, a separate housing request must be submitted through the Honors Program.

Residence Hall Contract

Students living in the residence halls are required to sign a residence hall housing contract as part of their online application for housing. The housing contract applies to the entire academic year. See the Expenses, Financial Aid and Scholarships chapter of this catalog for housing costs.

Meal Plans

If you live in the residence halls, you must purchase a resident’s meal plan. Off-campus students and those living in Edgewood Commons Apartments may also purchase plans.

Meal plans may change each semester and the deadline for selecting plans will be announced before the semester begins.

Once you select a meal plan, that plan will continue unless you notify the University and Student Billing Office by the deadline. If you do not select a plan, the University and Student Billing Office will automatically assign you a meal option. See the Expenses, Financial Aid and Scholarships chapter for meal plan costs.

Residence Hall Association

Every student living in a residence hall becomes part of a hall council which elects an executive board and floor representatives to the Residence Hall Association. The student representatives develop a budget for spending the hall activity fees, recommend activities and programs, and act as representatives at leadership conferences. For more information, contact the Residence Life Office (301.687.4121).

Automobile Policy

All currently enrolled students can operate and park their vehicles on campus. On-campus students must register their car at the University and Student Billing Office but there is no fee. Students who do not live on campus or who live in Edgewood Commons Apartments must pay a fee when they register their cars in the University and Student Billing Office.
Services for Students

The Division of Student Affairs can assist you in achieving your intellectual, social, cultural, career, physical and spiritual goals. We offer counseling, testing, student employment, learning assistance, advising and career services, health services, student activities, Greek life, community service and opportunities to develop your leadership skills.

Information and regulations pertaining to student life are found in The Pathfinder (www.frostburg.edu/pathfinder), the Policy Statement Booklet, the Residence Hall handbooks, and other bulletins issued by the University. Contact Student Affairs (301.687.4311) for more information about these services.

Academic Success Network

Programs Advancing Student Success (PASS)

Learning assistance services are available for all students and can help you develop the basic academic and study skills you need to master college courses. The PASS office provides:

- basic skills assessment in mathematics, English and reading for all freshmen;
- study skills assessment and development;
- time management and organization strategies;
- instruction for developmental mathematics; and
- peer-assisted learning.

(301.687.4441)

The Tutoring Center

The Tutoring Center promotes academic excellence by providing quality resources and staff that meet the needs of FSU students who want or require additional help with their course work. Center services include:

- Free tutoring for 100 -and 200-level courses in:
  - Natural Sciences
  - Math
  - Computer Science
  - Accounting
  - Economics
  - Select courses in the humanities and social sciences
- Writing assistance for every type of writing assignment

(301.687.4066)

TRIO Student Support Services

TRIO Student Support Services (SSS) is an academic support program entirely funded by the U.S. Department of Education to serve 275 eligible Frostburg State University enrolled students. Eligible students must meet one of the following criteria: first generation college, low-income or documented physical or learning disability. The program's purpose is to help students stay in college until they graduate and to foster an institutional environment supportive of them. Through cooperation and collaborative planning efforts with FSU departments, faculty, and staff, the SSS program provides a comprehensive program of personal and academic services. Some project services include:

- academic advisement, advocacy and monitoring;
- personal counseling;
- education and counseling to improve financial and economic literacy
- professional tutoring;
- academic success workshops;
- educational and cultural event opportunities;
- assistance in developing educational goals; and
- career exploration and guidance.

(301.687.4481; FAX 301.687.4671)

Disability Support Services

Disability Support Services assists students with disabilities by coordinating services that allow them an equal opportunity to participate in all aspects of the educational environment. The office collaborates with students, faculty, and staff to create a welcoming campus that meets the needs of students with disabilities, fosters student independence, and recognizes students on the basis of their abilities rather than their disabilities. Services include but are not limited to: note takers, electronic textbooks, scribe/reader services, testing accommodations, Braille, interpreting services, Kurzweil and advocacy. Students must present documentation of their disability and meet with the director to qualify for services.

(301.687.4483; TTY/HCO 1-800-735-2258 – Maryland Relay)

Diversity Center

The Diversity Center offers activities, workshops and programs to help all students develop an understanding of cultural differences as well as the skills needed to work effectively with individuals from various cultural/ethnic groups. Additionally, the Center staff members serve as allies and advocates for students and organizations as they learn to negotiate the University environment. Mentoring, academic monitoring and social adjustment monitoring are also available for students through the Center.

(301.687.4050)

Veteran Services Office

The Veteran Services Office assists service members and eligible dependents in applying for and receiving military educational benefits. If you are a new or re-entering student who is or may be eligible for these benefits, please contact the Veteran Services Office well in advance of the semester you plan to register and when you anticipate any change in academic status. Further information is available at www.frostburg.edu/vet.

(301.687.4409)

Health Services

- Required Medical Information: When you are accepted at the University, you will receive a packet of information. This packet includes required health forms as well as instructions on how to complete your medical history form online. A complete physical examination by your health care provider is recommended, but only required for student athletes. All students are encouraged to complete their medical history prior to starting classes.
The University requires all students to be immunized for measles, mumps, rubella (MMR), diphtheria, tetanus and pertussis (Tdap) and to have documentation of these up-to-date immunizations on file in the Brady Health Center prior to registration. The Tuberculosis Risk Assessment form is also required to be completed. If you were born before 1957, you are exempt from documentation for MMR. Students who reside in on-campus housing need to be vaccinated against meningococcal disease, or if they choose not to be vaccinated, they must sign a waiver.

The immunization requirements are waived for students who are enrolled in “online only” programs and who do not physically come to the Frostburg campus.

- **Services**: The University Health Center is accredited by AAAHC (Accreditation Association for Ambulatory Health Care). Brady Health Center offers services for common illness and minor injury, women’s health, STI testing, allergy injections, immunizations and wellness programs and is available to all currently enrolled students. Referrals to community agencies, hospitals and specialists are provided as indicated.

- **Health Insurance and Fees**: Currently there is a $15 fee for most visits to the health center; there are also miscellaneous charges for diagnostic tests, immunizations, treatments and prescription medications. Payments can be made by cash, check or Bobcat Express, or the charges can be billed to the student’s account. The health center does not bill health insurance for its services, but recommends all students have a current copy of their insurance card with them while attending FSU.

More detailed information about our services and fees, as well as all required forms, can be found at www.frostburg.edu/brady.

(301.687.4310)

### Counseling and Psychological Services

The Counseling Service (301.687.4234) offers a variety of counseling and developmental services to students and the University community. The services are accredited by the International Association of Counseling Services and provided by experienced counselors, psychologists and supervised interns. There are no fees charged to FSU students.

- **Individual Counseling**: Personal counseling is available to students who may wish to improve their personal or academic effectiveness, or who may be experiencing personal (relationships, anxiety, adjustment, depression, self-concept, etc.), social, career or academic concerns. Counseling sessions are private and confidential and do not become part of the student’s academic record. Psychiatric consultation and evaluation is available through the Counseling Service.

- **Group Counseling and Personal Development**: Counseling groups and developmental programs are available on topics such as depression, stress management, eating concerns, substance abuse and relationships.

- **Consultation and Training**: The Counseling Center staff consults with individuals, student organizations and other groups on helping skills, goal-setting, empathetic listening, team building, crisis prevention and other topics.

- **University Testing Program**: The Counseling Service coordinates the administration of a number of tests students need for admission to graduate school or to fulfill professional standards required by states or other agencies. These tests include the Graduate Record Exam, PRAXIS, Law School Admission Test, Medical College Admissions Test, Miller Analogies Test and others.

- **Alcohol/Drug Education Program**: The Counseling Service sponsors an alcohol/drug education resource center (S.A.F.E. Office, 301.687.4761) that provides substance abuse prevention programs and activities.

### Career and Professional Development

The Career and Professional Development Center serves as a resource hub for students interested in planning and exploring academic majors, experiential activities and career development.

Our center offers a variety of options for career exploration and information gathering. A number of assessment tools, along with personal consultation, are utilized to assist you in making choices about majors, employment and graduate school programs.

The Career and Professional Development Center assists you in the development of lifelong learning through meaningful education, planning and experiences that are consistent with your academic, personal and professional goals. The services of the Center include:

- **Majors Fair** held every fall. It provides you an opportunity to ask questions of our upperclassmen who are representing their major clubs and organizations.

- **Career Expo** held during Homecoming weekend that brings FSU alumni back to the campus. The alumni discuss post-graduation experiences and how they have made their majors work for them.

- **Spring Career and Internship Fair** held in early April. This fair draws regional employers to the campus.

- **Education Job Fair** held in April that provides our education majors with the opportunity to interview with numerous school systems throughout the region.

- **Resource library.**

- **Alumni networking.**

- **Classroom presentations/center workshops/individual sessions.**

- **On-campus recruiting.**

- **Employer information sessions.**

- **Credential file program.**

- **Experiential education opportunities** such as the Disney College Program, The Washington Center, local, national and international internships.

(301.687.4403)
Student Involvement

The Lane University Center—the FSU "Student Union" located in the center of campus—serves as the hub of student activities. Student organization offices, the University Store, Starbucks, a bank, an information center, a lounge, the game room, ticket office, meeting rooms, a computer lab, a fitness center, and a food court featuring Moe’s, Chick-fil-A and other food stations are all located here. The campus community uses the Lane University Center for gathering with friends as well as for banquets, concerts, dances, performances, conferences, meetings, and many other events.

Campus activities at the University are largely administered by students with support from the Lane University Center and Office of Student and Community Involvement (301.687.4411). This office can provide you with complete information on all student organizations and activities and on special campus events.

Student Government Association (SGA)

All students are represented by the two branches of the Student Government Association: the Executive Council and the Senate. The SGA develops and administers student self-government policies, provides many services to students, communicates with faculty and administration and decides how the student activity fees will be spent. Students from all undergraduate classes are encouraged to run for office in SGA and participate in shaping the future of the University. The Student Government Association Office (301.687.4304) can help you to get involved.

University Programming Council

The University Programming Council (UPC) is a student-directed organization that provides a wide range of programs and activities for students and the campus community. UPC’s annual activities include:

- Welcome Week and Spring Fest;
- Dances, comedy shows and other special events;
- Feature film series, the Live at the Loft! music series, lectures and more.

UPC is always looking for new student leaders to help plan and implement programs. For more information about the University Programming Council and how to get involved, please contact the director of Student Activities at 301.687.4049 or contact UPC directly at 301.687.4192 or by email at upc@frostburg.edu.

Cultural Events

Each year the University sponsors many cultural events in the fine and performing arts. The Cultural Events Series (301.687.3137) presents professional performances throughout the year. Past guests have included GooGoo Dolls, Herbie Hancock, Maroon 5, Sara Bareilles, The Roots, as well as Broadway musicals such as Music Man, Seven Brides for Seven Brothers, Urban Cowboy and Hello Dolly. FSU students receive discount ticket pricing for all CES performances. Opportunities also exist for student internships and employment with CES to assist in the production of the events. A vast array of workshops and educational outreach opportunities with professional performers are also offered throughout the year.

University departments present major theatre productions, numerous music performances, poetry readings, lectures, art shows and other events featuring both students and visiting artists.

Leadership and Civic Engagement

University students provide over 40,000 hours of service each year. Volunteer work is coordinated through the Office of Leadership & Civic Engagement which sponsors numerous projects.

- READ TO SUCCEED!
- VOICE Program (Volunteer Opportunities in the Community Environment)
- ECHOSTAR Living, Learning, Serving Program
- Winter and spring Alternative Break trips
- Student Center for Volunteerism

If you want more information about volunteer opportunities, call 301.687.4210.

Black Student Alliance

The Black Student Alliance members work to foster understanding of their culture and heritage in the campus community. The Alliance sponsors programs, events, and activities, provides an office where students can discuss issues and relax, maintains a library, and works collaboratively with other organizations to create a safe and welcoming environment on campus. Call 301.687.7402 for information.

Student Publications and Media

Students who want invaluable experience in media can take part in several extracurricular activities. Writers, editors and artists/designers can join the staffs of two official student publications: The Bottom Line, a student newspaper, and Bittersweet, a literary magazine. Students interested in broadcasting can work at WFSU, the campus radio station. FSU-TV3 transmits important campus information over Channel 3.
Department of Athletics

Frostburg State University has one of the finest and most comprehensive varsity sports programs in the country. FSU offers 21 intercollegiate sports; 11 for women, 10 for men. Women’s sports include basketball, cross country, field hockey, lacrosse, soccer, softball, swimming, tennis, indoor and outdoor track and field and volleyball. Men compete in baseball, basketball, cross country, football, lacrosse, soccer, swimming, tennis and indoor and outdoor track and field.

Competing in Division III of the National Collegiate Athletic Association (NCAA), Frostburg State University is a member of the Capital Athletic conference (CAC), the New Jersey Athletic Conference (NJAC) for football only, and Eastern Collegiate Athletic Conference (ECAC). Frostburg State has won championships in the NCAA, ECAC and CAC. As a member of NCAA Division III, FSU can offer no athletic scholarships. Hundreds of FSU student-athletes have earned All-American honors over the years.

As a result of paying an athletic fee, students are admitted free of charge to home athletic events, have access to recreation facilities and may participate in intramural and club sports. The athletic department administers and funds the intramural and club sports programs at the University. A wide variety of intramural activities are held each year for both men and women.

University Organizations

If you’ve got a special hobby or academic interest, join a club to find other people who like the same sort of thing! A partial list of clubs and organizations currently active at FSU follows, but the listing is by no means complete because you can start your own club with some friends and add it to the list. All student organizations register in the Lane University Center Reservations Office (301.687.4411) where you can find information about them.

Honor Societies

To encourage and recognize student scholarship within disciplines, more than 16 academic departments at the University sponsor an honor society organization. First-year students may be eligible to join Phi Eta Sigma. In addition, there are special societies for students in the honors program and students studying wildlife.

Professional Organizations

Over 30 professional organizations can help you learn about and pursue the career you have chosen. These organizations include the Accounting Association, Finance Club, Justice Studies Club, Student Education Association and many others.

Greek Organizations

Fraternities and sororities have been an integral part of campus life at Frostburg State University since 1931. Today, as in 1931, the Greek system is dedicated to the personal growth and development of students through programs and services that promote the ideals of scholarship, leadership and service. Personal relationships, the opportunity to provide service to the community, leadership development workshops and retreats, involvement in campus life and planned social activities are all important aspects of GreekLife. The combination of these activities assists in the development of educated citizens and responsible community members.

Students may join one of FSU’s 21 recognized fraternities/sororities on campus which offer students opportunities in leadership, community service, philanthropy, scholarship, and social activities.

The Assistant Director of Student Activities at the University (301.687.7398) can provide you with detailed information about these social organizations and membership.

Religious Organizations

Campus religious organizations—both denominational and ecumenical—have established offices and offer programs to students. During orientation, you may voluntarily complete a form about your religious preferences so that these organizations can provide you with information about their services and opportunities for worship in the community.

Special Interest Organizations

Students have many opportunities to join or create organizations that fit their interests. Students have created clubs and special interest groups in sports, music, computers, politics, the arts and wildlife.
Registered Student Organizations

2LUV&TOLR8
3 AM Society
A Capella Union
Accounting Association
African Student Association
American Society of Mechanical Engineers
Anime Club
Anti Bullying Club
ASL and Deaf Culture Club
Avengers Dance Team
Badminton Club
Baptist Student Ministry
Best Buddies
Black Student Alliance
BURG Peer Education Network
Caribbean Student Association
Chess Club
College Democrats
College Republicans
Collegiate Percussive Arts Society
Computer Club
CRU
Economics Club
Epitome Dance Team
Ethiopian Student Association
Finance Club
French Club
Frostburg 5 Rivers TU Fly Fishing and Conservation Club
Frostburg Association for the Education of Young Children
Frostburg Golf Club
Frostburg Men's Club Lacrosse
Frostburg Police Explorers
FSU Rock Climbing Club
FSU Women's Club Soccer
FSU Wrestling Club
League of Legends Group
Geography Club
Global Business Club
Health and Physical Education Majors Club
Hillel
History Club
Lady B.U.G.S.
Latin American Student Association
Latter Day Saints Student Association
LEAD
Low Brass Society
Marching Bobcats
Marketing Club
National Association for Music Education
National Association for the Advancement of Colored People
National Broadcasting Society
National Council of Negro Women
National Residence Hall Honorary
National Society of Black Engineers
Paparazzi Perfect Modeling
Pre Professional Medical Society
Psychology Club
SAFE RIDE
Savage Mountain Stage Combat Club
Sierra Student Coalition
Social Work Alliance
Society for Advancement of Management
Society for Human Resources Management
Society of Collegiate Journalists
Spanish Club
Spectrum
Student Alumni Ambassadors
Student Athletic Advisory Committee
Student Communication Studies Association
Student Government Association
Student Members of the American Chemical Society
Students for Women's Issues
The Bottom Line
The Strutters Dance Team
Unified Voices under God's Dominion
United Campus Ministry
University Programming Council
Visual Couture Runway Fashion
Wildlife Society
The Academic Program

The University offers courses of study in the Liberal Arts and Sciences, Business, and Education leading to the following degrees: (1) Bachelor of Science, (2) Bachelor of Arts, (3) Bachelor of Fine Arts, (4) Bachelor of Science in Nursing and (5) Bachelor of Science in Urban and Regional Planning.

We also offer the degrees of Master of Business Administration, Master of Education, Master of Arts in Teaching, and Master of Science in a variety of fields. See the Graduate Catalog for full information.

Undergraduate Degree Requirements

Bachelor of Science Degree
Candidates for the Bachelor of Science degree must meet all of the following requirements:

1. Completion of at least 120 semester hours of college credit.
2. Completion of the General Education Program.
3. Completion of all course work taken at FSU with a cumulative GPA of at least 2.0.
4. Completion of a major with a cumulative grade point average of at least 2.0 in all courses taken in the major department (unless specifically excluded). Interdisciplinary majors count all courses specifically listed as meeting the requirements of the major to determine the major GPA.
5. Completion at Frostburg State University, through course work or special departmental exams, of at least one-half the credit hours required in the student’s major department (unless specifically excluded or specified differently in the catalog description of the major). Interdisciplinary majors count all hours earned in courses specifically listed as meeting the requirements of the major.
6. Completion of a minimum of 30 semester hours of credit, of which at least 15 semester hours are upper division credit, towards the degree at Frostburg State University.
7. Completion of one of the following:
   a. 15 elective credits outside of General Education requirements and course work in the major department.
   b. An “interdisciplinary” major (one for which there is no “major department”).
   c. A minor.
   d. A second major.
   e. Secondary or P-12 teacher education certification.
8. Completion of at least 39 credits at the upper division (300-400) level.
9. Demonstration of technology fluency, defined as proficiency in the University-identified ten Basic Technology Skills, by completing one of the following:
   a. Passing the Test of Basic Information Technology Skills (meets requirement but you do not earn credit).
   b. Successfully completing COSC 100/110 with a grade of C or better.
   c. Successfully completing other Frostburg State University courses that provide instruction in the basic technology skills with a grade of C or better. Courses approved for students following this catalog include:
      • ART 207 Graphic Design
      • CHEM 304 Computational Techniques in Chemistry
      • COSC 101 The Discipline of Computer Science
      • COSC 220 Introduction to Software Applications
      • EDUC 346, 447 & 448 Educational Technology Labs I, II and III (All three one-credit courses must be completed, each with a grade of C or better)
      • GEOG 275 Fundamentals of Geographic Data Handling
      • HPED 310 Technology in Health and Physical Education
      • MUSC 103 Theory II
      • NURS 404 Nursing Informatics
   You must meet all prerequisites for the course(s) selected
10. Completion of all semester credit hours beyond 90 credits at Frostburg State University, except for up to seven credit hours following the stipulations in the policies concerning attendance at another institution.
11. Completion of all required professional education courses and requirements for students in teacher education programs.
12. Completion of all approved student outcomes assessment activities required
by the University and the academic programs.

13. Completion of an application for diploma and graduation when student completes 70 credit hours (forms available in PAWS online).

14. Fulfillment of all financial obligations to the University.

In addition to these requirements, students are strongly encouraged to take advantage of alternative means of earning academic credit outside of the traditional classroom to enhance the quality of the educational experience and to ensure timely progress towards a degree. Options available to students include: online courses; registration in intersession or the summer sessions; independent study or undergraduate research; study abroad; service learning; internships, field experiences, and practica; credit by exam; and advanced placement credits.

**Bachelor of Arts Degree**

Candidates for the Bachelor of Arts degree must complete all requirements listed above for the Bachelor of Science degree and, in addition, complete or test out of the 250-level course in one foreign language offered at the University or transferred from another college or university.

**Bachelor of Fine Arts Degree**

The Bachelor of Fine Arts degree is a professional degree currently awarded only to students who major in Art and Design. Candidates for the Bachelor of Fine Arts degree must complete all requirements listed above for the Bachelor of Science degree.

In the event that a student completes more than one major as an undergraduate student, and one of the majors would culminate in a BFA degree, an additional diploma will be issued by the Registrar’s Office. You must declare your request for an additional diploma at the time of application for graduation and comply with the procedures established by the Registrar’s Office to administer this policy.

**Bachelor of Science in Nursing**

The Bachelor of Science in Nursing is a professional degree awarded only to students who complete the RN to BSN degree program. Candidates for the degree must complete all requirements listed for the Bachelor of Science degree as well as successfully complete the BSN degree’s specialized, professional coursework.

**Orientation Requirement**

Frostburg State University offers ORIE 101, Introduction to Higher Education, to provide new students with a complete introduction to all dimensions of college life. This one-credit course is required of all first-time students, including transfer students with fewer than 13 semester hours of transfer credit, and may be elected by any student who is new to FSU. You may not withdraw from this course unless you are withdrawing from the University. You will find a complete description of ORIE 101 in the course description section of this catalog.

In the fall semester, most ORIE 101 sections are part of FSU Connections in which students in your ORIE section also will enroll in at least one other class together. You may study a shared theme across a group of courses, enroll with others who share your interest in a potential major or career, or get to know students who are interested in using certain support services. Stand-alone ORIE 101 sections are offered primarily in the spring.
General Education Program (GEP)

Minimum of 40 credit hours required of all students

Goals of the General Education Program

Frostburg State University’s Goals for General Education reflect the mission of the University and its Undergraduate Institutional Learning Goals through a focus on four specific areas of learning.

1. Core skills
You will become proficient in reading, writing, speaking, and listening skills necessary for effective communication. You also will develop quantitative literacy, technology literacy, and information literacy.

You will

• demonstrate foundational skills in the comprehension and interpretation of information in written and oral forms;
• communicate information and ideas effectively;
• understand and apply mathematical reasoning to solve quantitative problems and to evaluate quantitative information and arguments;
• use technological resources as appropriate to access and communicate relevant information.

2. Liberal knowledge and skills of inquiry, critical thinking, and synthesis
You will develop the foundational skills necessary to acquire knowledge in the humanities, the natural sciences, the social sciences, and the arts, which collectively embody the human cultural heritage. You will be introduced to critical thinking.

You will

• demonstrate foundational abilities to apply different methods of inquiry from various perspectives and disciplines to gather information;
• comprehend and use various fundamental research methods to evaluate information critically;
• use problem-defining and problem-solving skills by synthesizing core concepts within and across disciplines;
• demonstrate sustained intellectual curiosity through exploration of emerging issues.

3. Values and social responsibility
You will develop the foundational skills necessary to critically explore, evaluate, and define your values and become responsible citizens in a complex and changing society.

You will

• demonstrate respect and tolerance for other cultures and societies;
• make personal judgments based on ethical considerations and societal values;
• exhibit civic responsibility and leadership;
• understand the purpose and value of community service in advancing society.

4. Appreciation of cultural identities
You will gain insight into the ways cultural identities and experiences shape individual perspectives of the world and influence interactions with people from different backgrounds.

You will

• demonstrate the fundamental knowledge, skills, and attitudes essential for communicating and cooperating effectively with people of diverse backgrounds;
• demonstrate an awareness of the cultural and social exercise of power;
• recognize and appreciate arguments supporting perspectives different from your own.

GEP Grading Policy

• The P/F grading option is not permitted in the General Education Program.
• The grading policy for all Core Skills is as follows:
  A-F grades will be assigned, with a CS possible for students who have met the CS criteria stipulated in the course syllabus.
  The grade of CS may be earned only once per course; any CS assigned thereafter will revert to an F. Exceptions to this policy will be made only with the recommendation of the instructor.
  A grade of C or better is necessary to satisfy each Core Skill.

Double-counting GEP Courses

• A particular course may be counted to meet only one General Education requirement.
• Courses that count for both the General Education Program and major/minor requirements are noted in the major/ minor descriptions. You can complete your degree in a shorter time by choosing GEP courses that match the requirements of the majors/minors that interest you.

Core Skills

• All Core Skills may be satisfied by examination.
• You are expected to take these courses during your first 24 hours, with the exception of the advanced composition course requirement.
• If you are placed in a required section of ENGL 101, ENGL 105 (Critical Reading), or DVMT 095 (Pre-Algebra Mathematics) based on your scores on University placement tests, you may not withdraw unless you are withdrawing from the University.
• Once you are enrolled in ENGL 101, Freshman Composition, you may drop the course only during the drop/add period of one week at the beginning of the semester (except for required developmental courses, which may not be dropped). Under unusual circumstances, the chair of the English department may approve exceptions. Poor performance would not normally constitute a basis for an exception.
• You must continue taking a course which satisfies the requirement each semester until you have passed it with a grade of C or better.

Modes of Inquiry

• In Group E, IDIS 150 (First-Year FSU colloquium) or IDIS/SUST 155 (Introduction to Sustainability Studies) is required. The selected course should be completed prior to earning 45 hours or soon after transfer, if applicable.
• Other modes of Inquiry courses should ordinarily be completed in the first 90 hours.
GENERAL EDUCATION PROGRAM (GEP)

General Education Program (GEP) Minimum of 40 credit hours required of all students

CORE SKILLS - Minimum of 9 credit hours of coursework or credit by exam

1. Introductory Composition (3 hours)
   ENGL 101/111* Freshman Composition

2. Advanced Writing: One of the following (3 hours each):
   ENGL 308/309/310/312* Advanced Composition
   ENGL 300 Critical Writing about Literature
   ENGL 330 Business Writing
   ENGL 338 Technical Writing
   ENGL 339 Scientific Writing

3. Mathematics: One of the following (3-4 hours each):
   MATH 104 Intro to Mathematical Problem Solving
   MATH 109/110* Elements of Applied Probability & Statistics
   MATH 119 College Algebra
   MATH 120 Pre-Calculus
   MATH 236 Calculus I

Total hours: minimum of 9

MODES OF INQUIRY - Totaling 31-32 credit hours

You may not count more than one course or option where there are alternatives listed (as designated by OR) to meet Modes of Inquiry requirements in Groups A, B, C, D, and E.

A. The Fine and Performing Arts: At least one of the following (3 hours each)
   Art
   ART 100/111* Art Appreciation or ART 110 Visual Imagery
   Dance
   DANC 110 Dance Appreciation
   Music
   MUSC 106 Music in Contemporary Culture or MUSC 110 Music Appreciation or MUSC 117 Music of Africa, Asia, & the Americas
   Theatre
   THEA 106 Intro. to Theatre or THEA 107 Introduction to Theatrical Vision

B. The Humanities: At least two of the following (3 hours each)
   History
   HIST 100/111* The Contemporary World in Historical Perspective
   Languages
   FREN 250 Overview of French Language & Culture or SPAN 250 Overview of Spanish Language & Culture
   Literature
   ENGL 150/250* or ENGL 221 Intro. to Literature/Intermed. Composition
   Philosophy
   PHIL 101/111* Intro. to Philosophy or PHIL 102/112* Contemporary Ethical Problems

C. The Natural Sciences: At least two of the following (3-4 hours each)
   Biology
   BIOL 109 Human Biology and the Environment or BIOL 149 General Biology I
   Chemistry
   CHEM 100/113* Chemistry & Society or CHEM 150 General, Organic & Biochemistry or CHEM 201 General Chemistry I
   Geography
   GEOG 103/113* Physical Geography
   Physical Science
   PHYS 100 Cosmic Concepts (3cr) and PHYS 101 Measurement (1cr) or PHYS 203 Physical Science or PHYS 215 General Physics I or PHYS 261 Principles of Physics I: Mechanics
   Interdisciplinary
   IDIS 160 Science, Technology, and Society (3cr)

D. The Social Sciences: At least two of the following (3 hours each)
   Economics
   ECON 200 Basic Economics or ECON 201/211* Principles of Economics (Macro)
   Geography
   GEOG 104/114* Human Geography or GEOG 110 World Regional Geography: Cultural Diversity
   Political Science
   POSC 110/112* Intro. to American Politics or POSC 113/114* Intro. to World Politics or POSC 131 Introduction to Comparative Politics
   Psychology
   PSYC 150/151* General Psychology
   Sociology
   SOC 100/111* Introduction to Sociology

E. The FSU Colloquia: Two courses (3-4 hours each)
   *Complete prior to earning 45 credit hours or soon after transfer, if applicable.
   †Complete after earning 45 credit hours.
   IDIS 150/151* First-Year FSU Colloquium or IDIS/SUST 155 Intro. to Sustainability Studies (required)
   and select one course from:
   IDIS 350/351* Advanced FSU Colloquium† or one additional Modes of Inquiry course from Groups A-D.

F. Identity and Difference: One of the following (3 hours each)
   You must meet all prerequisites listed for the course you select.
   AAST 200 Intro. to African American Studies
   AAST 400 Africans of the Diaspora
   ART 301 Artistic Traditions: Asia
   ART 302 Artistic Traditions: Africa & the Americas
   CMST 350 Intercultural Communication
   ENGL 231 African American Literature
   GEOG 104/114* Human Geography
   GEOG 110 World Regional Geography: Cultural Diversity
   GEOG 427 Geography of Languages and Religions
   HIST 100/111* The Contemporary World in Historical Perspective
   HIST 418 Native Peoples of the Americas
   HIST 436 Women's Issues in World History
   HLTH 125 Health and Culture
   INST 150 Introduction to World Religions
   INST 200 Intro. to International Studies
   MDFL 111 Intercultural Understanding
   MDFL 301 Latin American Women's Issues
   MDFL 117 Music of Africa, Asia & the Americas
   MDFL 250 Gender and Sexuality in Music
   MDFL 311 Jazz History
   PHIL 308 Political Philosophy
   PHIL 311 Asian and African Philosophy
   PHIL 409 Philosophy and Women
   POSC 131 Introduction to Comparative Politics
   PSYC 220 Psychology of Women
   PSYC 325 African American Psychology
   PSYC 100 Leisure & Diverse American Culture
   PSYC 224 Cultural Anthropology
   SOCI 305/SOWK 305 Racial & Cultural Minorities
   WMST 201 Introduction to Women's Studies

Total hours: minimum of 31

*Honors course equivalent
†Complete prior to earning 45 credit hours or soon after transfer, if applicable.
‡Complete after earning 45 credit hours.

A particular course may be counted to meet only one General Education requirement.
Majors Offered at FSU

<table>
<thead>
<tr>
<th>Field</th>
<th>Career Cluster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting*</td>
<td>2</td>
</tr>
<tr>
<td>Adventure Sports Management*</td>
<td>1,2,4,5,8</td>
</tr>
<tr>
<td>Art and Design</td>
<td>6</td>
</tr>
<tr>
<td>Athletic Training</td>
<td>5</td>
</tr>
<tr>
<td>Biology*</td>
<td>3,4,5</td>
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<tr>
<td>Business Administration*</td>
<td>1,2</td>
</tr>
<tr>
<td>Chemistry*</td>
<td>3,4,5</td>
</tr>
<tr>
<td>Communication Studies*</td>
<td>6</td>
</tr>
<tr>
<td>Computer Information Systems*</td>
<td>2,10</td>
</tr>
<tr>
<td>Computer Science*</td>
<td>10</td>
</tr>
<tr>
<td>Earth Science</td>
<td>4</td>
</tr>
<tr>
<td>Economics*</td>
<td>2</td>
</tr>
<tr>
<td>Elementary/Early Childhood</td>
<td>8</td>
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<tr>
<td>Elementary/Middle School Dual Cert.</td>
<td>8</td>
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<tr>
<td>Elementary Education</td>
<td>8</td>
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<tr>
<td>Engineering</td>
<td>3,4</td>
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<tr>
<td>Engineering, Mechanical (w/UMCP)</td>
<td>3</td>
</tr>
<tr>
<td>English*</td>
<td>3,6</td>
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<tr>
<td>Environmental Analysis &amp; Planning</td>
<td>4,9</td>
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<tr>
<td>Ethnobotany*</td>
<td>1,3,4,5</td>
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<tr>
<td>Exercise and Sport Science</td>
<td>1,5,8</td>
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<tr>
<td>Foreign Languages &amp; Literature*</td>
<td>1,6</td>
</tr>
<tr>
<td>Geography*</td>
<td>1,4,7,9</td>
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<tr>
<td>Health &amp; Physical Education</td>
<td>5,8</td>
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<tr>
<td>Health Science</td>
<td>5,8</td>
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<tr>
<td>History*</td>
<td>6</td>
</tr>
<tr>
<td>Information Technology*</td>
<td>10</td>
</tr>
<tr>
<td>International Studies*</td>
<td>1,2,8</td>
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<tr>
<td>Interpretive Biology &amp; Natural History</td>
<td>1,4</td>
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<tr>
<td>Law and Society</td>
<td>8</td>
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<tr>
<td>Liberal Studies</td>
<td>all</td>
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<tr>
<td>Mass Communication*</td>
<td>6</td>
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<tr>
<td>Mathematics*</td>
<td>3</td>
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<tr>
<td>Music*</td>
<td>6</td>
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<td>Nursing</td>
<td>5</td>
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<tr>
<td>Philosophy*</td>
<td>6</td>
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<tr>
<td>Physics*</td>
<td>3,4,5</td>
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<tr>
<td>Political Science*</td>
<td>8</td>
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<tr>
<td>Psychology*</td>
<td>5,8</td>
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<tr>
<td>Recreation &amp; Parks Mgmt.*</td>
<td>1,4,5,8</td>
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<tr>
<td>Secondary Teacher Education</td>
<td>8</td>
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<tr>
<td>Secure Computing &amp; Info. Assurance</td>
<td>10</td>
</tr>
<tr>
<td>Social Science</td>
<td>8</td>
</tr>
<tr>
<td>Social Work</td>
<td>5,8</td>
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<tr>
<td>Sociology*</td>
<td>8</td>
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<tr>
<td>Theatre*</td>
<td>6</td>
</tr>
<tr>
<td>Urban &amp; Regional Planning</td>
<td>1,4,7,8,9</td>
</tr>
<tr>
<td>Wildlife &amp; Fisheries</td>
<td>4</td>
</tr>
</tbody>
</table>

Minors

*Minors are offered in the fields starred above, as well as in African American Studies, Animal Behavior, Art History, Coaching, Cultural Anthropology, Dance, Film Studies, Finance, Financial Services, Fine Arts, Forestry, Graphic Design, Health Promotion, Jazz Studies, Journalism, Leadership Studies, Management, Marketing, Public Relations, Small Business/Entrepreneurship, Sustainability Studies and Women’s Studies.

Majors and Minors

A major consists of a minimum of 30 semester hours of credit in a particular field. A minor consists of a minimum of 18 semester hours of credit in a particular field.

For majors, at least one-half the credit hours required in the student’s major department must be completed through course work or special departmental exams offered by Frostburg State University. For interdisciplinary majors and all minors, at least one-half of all the credit hours required for the completion of the major or minor must be earned at Frostburg State University.

To qualify for a specific major or minor, you must achieve, at a minimum, a 2.00 GPA in that field of study. (See sections on calculating GPA in major/minor.) Requirements for specific majors and minors appear under the Courses of Study section of this catalog.

You are responsible for planning your major in consultation with the chair of the major department and with your academic advisor. You should officially declare a major prior to the completion of 45 semester hours of credit. If you are a transfer student entering Frostburg State University, you must declare a major during your first semester. If you declare two majors and/or a minor, you must consult with your advisor and with the chairs of all departments involved. To be recorded on your transcript, a second major must be officially declared at least one semester prior to graduation. You are responsible for following departmental requirements, course sequences and prerequisites.

Majors Offered at the USM-Hagerstown

Upper division course work required for the majors in business administration, early childhood/elementary education (early childhood specialization), liberal studies, psychology and sociology is offered at the USM-Hagerstown.

Capstone Experience

A capstone experience is defined as a course, project, or presentation with variable credits that can be used as the locus for assessment of your learning in your selected major(s). Every academic program at FSU requires that you complete as a component of your major a capstone experience that allows your faculty to evaluate your overall proficiencies and competencies prior to your graduation. Capstone experiences can take various forms: a specific course, a senior thesis, an internship, a written and/or oral report, undergraduate research, etc., as determined by faculty who teach in your major(s).

Career Connections

Frostburg State University is an active partner in the Career Connections initiative (also known as School-to-Careers or School-to-Work). In the list on this page, the majors offered at FSU are keyed to ten career clusters chosen for emphasis by the State of Maryland. Students whose regions or states use a different cluster framework can overlay that rubric and find majors that match your interests and abilities.

As part of Career Connections, Frostburg State faculty have participated in workshops on how to blend disciplinary and career instruction, developed new curricula in partnership with local schools and community colleges, and updated curricula to ensure what you learn matches current industry standards. In addition, teacher education students will learn how to blend career awareness into instruction at all levels.

The ten Maryland career clusters are:

1. Consumer Service, Hospitality & Tourism
2. Business Management & Finance
3. Manufacturing & Engineering Technology
4. Environmental, Agricultural & Natural Resources
5. Health & Biosciences
6. Arts, Media & Communication
7. Transportation Technologies
8. Human Resource Services
9. Construction & Development
10. Information Technology

Interdisciplinary Studies

Interdisciplinary courses and programs enable you to explore human knowledge and experience beyond the limits of a single discipline. Interdisciplinary majors currently offered include Earth Science, Environmental Analysis and Planning, Ethnobotany, International Studies, Law and Society, Liberal Studies, Social Science, and Urban and Regional Planning.
ACADEMIC LIFE

You may also elect to complete an interdisciplinary minor such as African-American Studies, Film Studies, International Studies, Journalism, Leadership Studies, Public Relations, Sustainability Studies or Women’s Studies.

The Honors Program encourages interaction among good students engaged in the study of diverse disciplines and offers the interdisciplinary Honors Seminar (see IDIS courses in the course description section).

FSU Connections also foster the development of interdisciplinary insights by grouping students, faculty and courses to look at a common theme from different perspectives.

Finally, every student will have the opportunity for interdisciplinary study in the First-Year FSU Colloquium and/or the Advanced FSU Colloquium in the General Education Program.

Experiential Learning and Internships

Every program at FSU offers you the opportunity to apply your knowledge to real-world situations through internships, field experiences, service learning, special problems courses, applied research, competitions, simulations or use of actual case studies.

As you advance in your major, you will have increasing opportunities to apply your new knowledge and skills, culminating for some students in a full-time supervised internship for academic credit. See the 400 series in the course descriptions for application course offerings, though you will note that many other courses also include use of simulations and case studies.

You are strongly encouraged to participate in courses that provide an opportunity for you to apply your knowledge prior to graduation and employment.

Catalog Governing Graduation Requirements

Please note that you are responsible for knowing and meeting graduation requirements as stated in the catalog you are following. Graduation requirements include the basic requirements to earn a bachelor’s degree, the General Education Program, and major and minor requirements. The following provisions apply to part-time as well as full-time students.

1. If you begin your college course work at Frostburg State University, you must meet the graduation requirements of the catalog in effect when you first enroll.
2. If you transfer to Frostburg State University after having begun your college course work at another institution, you must meet the graduation requirements of the Frostburg State University catalog in effect when you first enrolled at the other institution. Or, you may choose to meet the requirements of a later Frostburg State University catalog, provided that you indicate your choice when you are admitted to this university and that you meet all the requirements of the later catalog chosen.
3. If you had more than two sequential years of non-enrollment since enrolling in an institution of higher education, you must meet the graduation requirements of the Frostburg State University catalog in effect at the time you first enroll at Frostburg State University.
4. If you reenter Frostburg State University after an absence of one semester or more, regardless of whether you have attended another institution in the meantime, you must meet the graduation requirements of your previous Frostburg State University catalog. Or, you may choose to meet the requirements of a later Frostburg State University catalog, provided that you indicate your choice when you are readmitted to this university and that you meet all the requirements stated in the later catalog chosen.

The following qualifications apply to the provisions stated in 1-3 above:

a. If the University changes a program in a way that prevents your meeting any graduation requirement as stated in your catalog, the change may necessitate substitutions but will not result in any increase in your requirements.

b. Any substitution of a major or minor requirement must be approved by your department chair; all other exceptions to graduation requirements must be approved by the Academic Standards Subcommittee. Significant departures from stated major requirements (e.g., substitution of more than one course) must also be approved by the Academic Standards Subcommittee. Substitutions must be reported with written rationale to the Registrar’s Office.

c. If a major/minor program undergoes revision after the year in which you enroll, you may choose to substitute the new requirements in full for those which appear in the catalog of your entry year. In order to select a particular set of major/minor requirements, you must enroll in and complete course work at Frostburg State University during a term when the new requirements are in effect. The catalog under which you first enrolled at Frostburg State University shall continue to govern general education and graduation requirements other than those which apply to the major/minor program. At the time you apply for graduation you must declare in writing your intention to follow a revised program.

d. If more than seven years have passed since you were last enrolled in college course work, you will have to meet the requirements of the catalog current when you re-enroll. Also, if you take longer than seven years to complete a degree, you may, after the seventh year, be subject to the catalog current at that time.
Additional Academic Opportunities

FSU Connections

FSU Connections introduce first-year students to the concept of critical thinking and offer the opportunity to engage in an in-depth exploration of a theme, a career or selected majors offered at FSU. FSU Connections provide an environment which fosters the development of support networks with faculty and other students, relationships that are important contributors to academic success.

Every FSU Connection includes Orie 101 Introduction to Higher Education (an orientation seminar required of all new first-year students) and may have an additional one to three classes linked by theme. FSU Connection students take their courses together as a group during the fall semester with a maximum enrollment of 20-25 students in each Connection. An FSU Connection may comprise four to nine credit hours of an average first-semester credit hour load of 12-15 hours.

A vast majority of FSU Connections courses fulfill FSU’s requirements in general education. The faculty who teach in FSU Connections also arrange supplemental learning activities, through special “Connections Seminars,” that highlight the themes of the community. Enrollment is limited to entering freshmen.

For further information, contact the Office of the Provost.

The University Honors Program

In the University Honors Program, you will immerse yourself in the excitement of higher education and personal discovery. You will explore your favorite subjects in engaging seminar-style classes that emphasize active learning principles with students from diverse backgrounds and dedicated professors who possess strong mentoring skills. Honors Program classes ask big questions and dig deep for answers, allowing you to uncover real understanding and lasting personal fulfillment. Upon graduation, honors students will have developed important critical thinking and problem-solving skills as they successfully progress to their new careers or graduate school. They also take with them a great respect for varying perspectives, effective communication skills, the ability to work independently, and close relationships with fellow students and faculty.

Most Honors classes are variants of courses that are regularly offered in the University’s General Education Program. In addition to academics, the Honors Program offers a range of co-curricular activities, including the opportunity to reside in Honors/International Housing in Frost Hall, Diehl Hall, and Cambridge Hall.

Ultimately, the Honors Program seeks to foster within students a strong sense of dignity, intellectual curiosity, and knowledge of their own potential, as well as real personal, academic, and professional skills as students and graduates.

Admission Requirements

Incoming first-semester students are invited to join the Honors Program if they have a high school GPA of 3.5 and a combined SAT score of 1750 (or an ACT score of 26). Students who do not meet both of these requirements may apply for admission to the Honors Program based on either an excellent GPA or high test scores. Normally, students will not be admitted without at least a 3.25 GPA or a minimum 1500 on the combined SAT (or 23 on the ACT). Exceptions are made on a case-by-case basis.

Those who have completed at least one semester of coursework at Frostburg State University or at another institution may apply to the Honors Program if they have a 3.5 GPA or above.

Students demonstrating considerable creative ability – as evidenced by essays, art projects, creative writing, musical composition, or musical performance – may also be admitted on a case-by-case basis.

Grade Repeat Option

Students who receive a grade of D, F, FX or W in an Honors variant course may choose to take the non-Honors equivalent for grade repeat. However, the use of the grade repeat authorization in this manner constitutes withdrawal from the Honors Program.

Part-time Study

Regularly scheduled classes are available to part-time students wishing to earn college credit or to improve their professional or vocational competence. Information regarding part-time study may be obtained from the Office of Admissions.

Like full-time students, part-time students will be required to complete testing requirements upon entrance and will be required to complete remedial programs in the basic skills of composition, reading, and mathematics if they do not achieve scores at or above prescribed levels.

Academic Life

Academic Life
Summer Session and Intersession

The principal mission of Frostburg State University’s Summer Session and Intersession is to provide FSU undergraduate and graduate students opportunities to enroll in a variety of high quality traditional classroom, online, internship and distance education courses that will help to ensure or accelerate your degree completion.

As part of this mission, the University provides a wide variety of online classes and more specialized courses during Summer Session and Intersession that are not as available to nontraditional or part-time FSU students during the regular academic year. In addition, the University offers you opportunities to pursue unique educational experiences that are difficult to schedule while enrolled in other classes.

Intersession

Each January the University offers a compressed semester allowing you to pursue course work both online and in the classroom in the General Education program, in your major (either through regular courses or via special-topics courses), or through participation in international studies courses. The semester is usually 18 to 20 days long and requires intensive study due to its shortened format.

Enrollment in one three-credit course is recommended, although you can register for two courses and up to six credits. All courses offered carry the same level of credit as that applied during regular semesters. To register for Intersession, you may not be on academic probation during the fall semester. In addition, athletes who are involved in competition during Intersession should seriously discuss with their coach the feasibility of taking courses. For full information, refer to the Intersession bulletin distributed each fall, visit the Intersession Web site or contact Special Academic Services.

Summer Session

From May to August each year the University offers a program of courses during six different sessions designed to meet almost every student’s needs. There is no reason for learning to stop when the weather gets hot. Summer Session is a great time to take undergraduate and graduate courses to keep your academic program on track, lighten your schedule for the next year and accelerate your progress toward a degree. You can earn college credits by registering for on-campus and online courses at both the undergraduate and graduate levels in many subject areas. Summer Session provides specialized courses for FSU students, students from other higher education institutions, high school students and adults from the general public who seek higher education as a means for professional and personal development. For additional information, refer to the Summer Session bulletin distributed each spring, visit the Summer Session Web site or contact Special Academic Services.

USM Inter-institutional Registration

Full time, undergraduate degree-seeking students may enroll in course work that enriches and augments their programs of study at other institutions in the University System of Maryland. Participants must have at least sophomore standing and a 2.0 cumulative GPA or above. Additional information is available in the Registrar’s Office.

International Education

Center for International Education

The Center for International Education (CIE) promotes, coordinates and supports FSU’s study abroad and international student programs and sponsors international co-curricular programs on campus. The Center’s Director is advised by the International Education Council consisting of students, faculty and administrators. The CIE houses information on the many study abroad opportunities available to FSU students. The CIE offers program materials, guides to study abroad programs and financial aid information. The Center also hosts pre-departure orientation sessions for FSU students participating in study abroad programs. The Center serves the FSU international student community by providing orientation programs for new international students, advice concerning F-1 and J-1 VISA immigration regulations and procedures and extracurricular programming.

Study Abroad Programs at Frostburg State University

Currently, you may choose from a wide range of study abroad programs that are designed to suit a variety of academic and financial needs. Most students study abroad during their junior year, although it is possible to arrange programs during the sophomore or senior year as well. Programs vary in length, academic focus, and degree level (undergraduate and graduate). Participation in an FSU-approved study abroad program assures that CIE will assist you with the transfer of academic credit to FSU upon your return. Interested students are advised to attend the bi-annual study abroad fairs in September and March, visit the CIE Office for individual guidance in choosing a program, or attend a CIE study abroad information session. For further information, either phone the CIE Office at 301.687.4714 or visit the CIE website.

Other Opportunities Abroad

In addition to the traditional study abroad programs mentioned above, you may participate in programs that allow students to travel abroad, work abroad, participate in volunteer projects or service learning projects abroad or complete internships abroad. Some of these programs may offer academic credit. Programs are offered by other universities, government and non-governmental organizations and international education organizations. The CIE resource room and website provide students with resources to identify programs of interest, and help students apply to participate.

Study Abroad Scholarships

Most FSU-sponsored or -affiliated semester or year-long study abroad programs allow students to use their financial aid packages. In addition, the Center for International Education awards scholarships to students who meet specific eligibility requirements. Scholarships in the amount of $500 and $1,000 per semester or session are awarded twice a year for programs taking place during the fall and spring semesters, the academic year, the intersession and the summer session. The Harold R. Rowe and Alan and Jane Wickert Scholarships of the FSU Foundation are available to support study abroad. The CIE also provides information on state, federal and other international scholarships, such as the Gilman Scholarship (for Pell Grant recipients), and scholarships through Rotary, NSEP and FSU-affiliated study abroad program providers. CIE is the campus support center for Fulbright awards for graduate study abroad. Students may apply at the CIE office.

International Student Services at FSU

Each semester Frostburg State University hosts a number of international students from all over the world. Faculty and scholars from international universities also join the FSU teaching faculty. In addition to providing services in dealing with immigration and visa regulations, employment, academic counseling, and orientation programs, the CIE organizes social events and weekend excursions for international students. The CIE also administers the Harold R. Rowe Scholarship program which awards funding to a number of international students each semester. Awards are available both to incoming and
returning degree-seeking international students. For further information, call the Center for International Education at 301.687.4714 or visit the CIE web site at www.frostburg.edu/studyabroad.

Enrollment of Undergraduates in Graduate Courses

Frostburg State University undergraduates may take no more than 7 credits in graduate courses for graduate credit prior to completion of the bachelor’s degree requirements. To enroll in a graduate course, you must be a senior with at least a 2.5 grade point average and must have the recommendation of your advisor.

Registration for graduate courses will be completed under the direction of the Registrar’s Office as a separate registration and will not be included in your undergraduate registration. If you are a full-time undergraduate student taking a graduate course during the academic year, you will not be required to pay tuition for the graduate course since you will pay tuition and fees as a full-time undergraduate.

Credit earned in a graduate course may be considered only as graduate credit and may not be used as undergraduate credit for the baccalaureate degree. The credit, although technically graduate credit, may not be used for a graduate degree at Frostburg State University unless it later becomes part of your graduate requirements.

Exceptions to these policies are made only for students who are admitted to a combined baccalaureate-master’s program at Frostburg State University or for programs that have received an exemption to these requirements. See the degree program listings for descriptions of current programs, selection criteria, and exceptions allowed.

Graduate Studies

You may pursue such degree programs as M.B.A., M.Ed., M.A.T. and M.S. Most students study part-time in the evening. The Master of Arts in Teaching is offered as an intensive, year-long, full time program. You may enroll in courses and complete programs at the main campus in Frostburg or at the USM - Hagerstown.

See the Graduate Catalog for further information.

Post-Baccalaureate Study at the Undergraduate Level

In addition to its graduate programs, FSU also offers undergraduate opportunities for bachelor’s degree holders who wish to extend their baccalaureate education. Please note the limitations on transfer credit described elsewhere in this catalog.

Additional Bachelor’s Degree Program:

If you have already earned a bachelor’s degree from an accredited institution, other than FSU, you may earn an additional bachelor’s degree from FSU by meeting the following requirements:

1. Be admitted (contact the Admissions Office for information).
2. Complete an academic major at FSU under the provisions of the catalog in effect at the time of that admission (a period of seven years is allowed for completion).
3. Complete at FSU, through course work or special departmental exams, at least one-half the credit hours required in your major department. For interdisciplinary majors, at least one-half of all the credit hours required for completion of the major must be earned at FSU.
4. Complete a major with a cumulative grade point average of at least 2.0 in all courses taken in the major department (unless specifically excluded). Interdisciplinary majors count all courses specifically listed as meeting the requirements of the major to determine the major GPA.
5. Maintain a grade point average of 2.0 overall.
6. Complete at least 30 credits of course work at FSU.
7. Submit to the Registrar’s Office an application for graduation at least one semester prior to your intended graduation date.
8. Fulfill all financial obligations to the University.

Additional Major Program:

If you are a graduate of FSU, you may add another major to your record by meeting the following requirements:

1. Be admitted (contact the Admissions Office for information).
2. Complete an academic major at FSU under the provisions of the catalog in effect at the time of that admission (a period of seven years is allowed for completion).
3. Complete at FSU, through course work or special departmental exams, at least one-half of the credit hours required in your major department. For interdisciplinary majors, at least one-half of all the credit hours required for completion of the major must be earned at FSU.
4. Complete a major with a cumulative grade point average of at least 2.0 in all courses taken in the major department (unless specifically excluded). Interdisciplinary majors count all courses specifically listed as meeting the requirements of the major to determine the major GPA.
5. Maintain a grade-point average of 2.0 overall.
6. Inform the Registrar’s Office in writing at least one semester prior to the time you expect to finish the major and wish it to be recorded.

7. Fulfill all financial obligations to the University.

8. In the event that the additional major would culminate in a degree other than the first degree earned by the student, a second diploma will be issued by the Registrar’s Office. For details, check with the Registrar’s Office one semester before the anticipated completion of the additional major.

**Teaching Certification**

If you already have a bachelor’s degree and wish to pursue teaching certification at Frostburg State University, your options are to:

1. Complete all the requirements of a Maryland state approved program in teacher education as a second major (FSU graduates) or a second baccalaureate degree (graduates of other institutions).
2. Complete the Master of Arts in Teaching, including any undergraduate course work deficiencies. Information about the Master of Arts in Teaching is available from the Department of Educational Professions and in the FSU Graduate Catalog.
3. If you wish to teach in a state other than Maryland, it is your responsibility to ascertain if a Maryland state approved program will meet certification requirements.

**General Course Work:**

Bachelor’s degree holders, like any other academically qualified students, may take general course work at FSU provided that they have the proper prerequisites, have been duly admitted to the university, and have paid the requisite fees. Interested students should apply through the Admissions Office.

**Certificate Programs**

Degree-seeking undergraduates and non-degree-seeking community members may earn a certificate in several specialized areas. Certificate programs are designed to provide specialized skills and knowledge that may enhance your undergraduate program and/or provide skills useful in employment. Undergraduate certificates include a minimum of 12 credit hours.

If you are a currently enrolled, degree-seeking undergraduate student, you may declare your intent to complete a certificate by contacting the chair of the department that offers the program and on the application for graduation.

**Pre-Baccalaureate Programs**

Get a head start on your college career! In addition to accepting AP and IB credit (see section on credit-by-exam), Frostburg State University welcomes talented high school students who want to take advantage of opportunities to complete college courses while in high school or the summer after graduation.

Frostburg State University offers a limited number of college-level courses in Allegany County high schools. You take the same course and must meet the same standards as you would on campus. If you are an area high school student, you also may be admitted as a non-degree seeking student to take courses on the FSU campus. You must have the recommendation of your high school to participate in either of these programs. Credit is recorded on an official FSU transcript for application to an FSU degree or for transfer.

The SOFI Program (Summer Online Freshman Initiative) allows incoming freshmen to take popular introductory courses before the start of the fall semester. You register for SOFI courses during your scheduled Preview FSU session in June. You register for SOFI courses during your scheduled Preview FSU session in June as you plan your fall class schedule with the assistance of faculty advisors. SOFI courses take place during Frostburg State University’s second six-week summer session. You may participate wherever you are because SOFI courses are all online.
Academic Regulations & Procedures

Student Academic Responsibility

- You, the student, are responsible for planning your academic program and for meeting the requirements of the University and of departments.
- This responsibility includes developing a complete understanding of, and following all degree requirements, academic regulations, and procedures.
- You must obtain, retain, and consult regularly the sections from the applicable catalog that govern your graduation requirements.
  The degree requirements specified in the catalog assigned to you at the time of admission or readmission serve as a two-way contract between you and the University. The contract specifies that the basic requirements to earn a bachelor’s degree, the General Education Program, and major and minor requirements will not be changed as long as you complete a degree within seven years of the time of your initial enrollment in college. In turn, you are responsible for meeting these requirements.
- The academic regulations and procedures described in this chapter may change during the period of your enrollment, and it is your responsibility to be aware of, and follow the academic regulations and procedures currently in effect.
- All changes in regulations and procedures will be published in official University publications such as the Undergraduate Catalog and Registration Guide, with prior notice of changes provided.
- You are assigned an academic advisor, whose role is to assist you in planning the academic program and in interpreting degree requirements and academic regulations. It is your responsibility to confer regularly with your advisor. The advisor will provide the best, most current information possible, but, ultimately, it is your responsibility to request and use this advice wisely and to meet graduation requirements and academic regulations.
- It is your responsibility to promptly declare or change your major.

Academic Advising Policies and Procedures

At Frostburg, you always will have an academic advisor to assist you in realizing your academic and career goals. You are encouraged to see your advisor regularly to discuss your current academic work and future plans, to ask for advice about any problem you encounter, and to find out about other services on campus that are available to support your academic success. You will need to see your advisor at least once per semester prior to registration to plan your schedule for the next term. Your advisor will activate your registration status in PAWS (the Student Administration computer system) so you can register and drop/add on the web. Most advisors post appointment sheets outside their office doors prior to registration, or you can call or e-mail your advisor to make an appointment. Plan ahead to make your advising experience successful.

If you enter FSU as a first-time college student, you should plan to come to Preview FSU, our freshman orientation program. At Preview FSU, you will work with an experienced faculty advisor who is specially trained to work with first-time students. During your first semester, your advisor will be the instructor of your ORIE 101, Introduction to Higher Education class. ORIE instructors/advisors include faculty and administrators who will assist you with your transition to college. Advising and planning is a major component of the ORIE 101 curriculum. You will meet your ORIE advisor twice a week, so take advantage of this contact to ask any question you have. Freshmen may transition to academic departmental advising during their second semester after meeting with their ORIE advisor to discuss first semester outcomes and to confirm their choice of major. If you aren’t ready to move to a departmental advisor or to declare your major, your ORIE instructor will continue to advise you until you are.

If you enter FSU as a transfer student, and know what major you want to pursue, you will be advised by the department chair or a designated faculty member during transfer orientation/initial registration. You then will be assigned your regular faculty advisor. If you aren’t sure about your major, you will work with staff in the Center for Academic Advising and Retention who have experience working with exploratory students until you are ready to declare your major.

Your major advisor will work with you throughout your academic career. But always remember that you can change your major or request a change of advisor, at any time. Talk to the chair of the department that offers your major if you want to make a change.
Registration
The Academic Calendar lists the registration schedule for each semester and summer session. You may change your schedule within the period prescribed in the Calendar. You must satisfy your financial obligations to the University to complete registration.

Class Standing
Students achieve class standing according to the following table:
- Freshman: 0-29 semester hours earned
- Sophomore: 30-59 semester hours earned
- Junior: 60-89 semester hours earned
- Senior: 90+ semester hours earned

Course Load
The unit of course work is the semester hour, defined as the normal amount of work done in one 50-minute class period and two hours of outside preparation a week for one semester.

The normal full-time load is 15-17.5 semester hours of credit. The minimum load for a full-time student is 12 semester hours of credit; the maximum, 17.5 hours. If you carry fewer than 12 semester hours of credit you will be classified as a part-time student.

To enroll for more than 17.5 semester hours of credit, you must have earned an FSU cumulative G.P.A. of 3.0 or above, have completed at least one semester of course work at FSU, and have the written permission of your advisor. Exceptions to these overload guidelines shall be made only upon recommendation of the advisor and the approval of the department chair (or Associate Provost if the student has not declared a major). Forms for requesting an overload must be submitted prior to registration. You will not be able to register for an overload without permission.

Course Changes
(Drop/add/withdrawal)
You may change your registration (add or drop a course or change sections or credits) using PAWS (The Web-based student information system) from the time of registration through the first week of classes (or the equivalent proportion of class days in a session that is shorter than a semester) if the course or section added has openings. If the course is closed, you must request an override from the department chair involved. You may not add courses after the first week of classes (or equivalent).

You are responsible for dropping/adding courses/sections at all times. Failure to do so will result in a grade of FX in the course or section “dropped” and no credit in the course or section “added.” However, if you are enrolled in a class and miss the first class meeting without notifying the instructor/department, the department chair at his/her discretion has the authority to drop you from the course if other students are waiting for space in the class. All other drops must be initiated by you.

After the first week of classes, to drop a class, you must complete the change-of-course form and file it with the Registrar’s Office. If you drop a course during the first 60 percent of a term (beginning with the first day of classes), you will receive a W. Exact dates governing withdrawal from a course without penalty appear in the Academic Calendar.

After this period if you drop a course, the WF described below will apply. See the section “Withdrawal from the University” for a description of the process for withdrawing from all of your classes.

WF — withdrew-failing — for official withdrawal from a course after the first 60 percent of a term. (USED in computation of average.)

W — withdrew — with approval of the Dean of the College offering the course, who will grant approval only under exceptional circumstances (e.g., serious illness) documented by the student, after consultation with the instructor of the course. The Dean will notify the academic advisor if a W is approved. A W will not be considered after the last day of classes. (NOT used in computation of average.)

Class Attendance
Faculty members individually set their policy on class attendance. You must understand clearly the attendance policy of each of your instructors and act accordingly. You are responsible for explaining the reason for any absence to your instructor. If at all possible, contact the instructor prior to your absence.

The Health Center does not issue verification notices for routine treatment. In cases of significant or prolonged impairment, the Center will provide appropriate written verification of treatment at your request.

If forced by an emergency to be absent from classes, you may notify the Office of the Vice President for Student and Educational Services, which will keep such information on file should instructors wish to confirm your absence.

Absences for Religious Observances
It is the policy of Frostburg State University that the academic programs and services of the University shall be available to all qualified students who have been admitted to its programs, regardless of their religious beliefs. Students shall not be penalized because of observance of their religious holidays and shall be given an opportunity to make up, within a reasonable time period, any academic assignment that is missed due to individual participation in religious observances. It is the responsibility of the student to notify his/her instructor of conflicts between religious observances and scheduled course activities.
Absences for Activities

The faculty recognize the value of such activities as attendance at meetings of regional and national scholastic and professional organizations, participation in University-sponsored dramatic or musical events, and varsity athletics. If you participate in such activities and incur class absences because of them, you are responsible for notifying your instructors in advance of such absences. An instructor who has any question regarding your absence for such activities may call the faculty member or other person responsible for the activity.

If you are on academic probation, you may not incur class absences for non-credit activities without prior permission of your instructors. Since field trips connected with activities offered for academic credit are a part of the academic program, you are eligible regardless of your grade average.

Attendance at Another Institution

Once you enroll as a degree candidate at Frostburg State University, you must request prior permission to pursue course work at another institution and transfer it into your program at Frostburg State. This procedure is for your protection to ensure that course work is transferable, is equivalent to the course for which you seek credit, and meets the requirement you want to fulfill. Once you are a degree-seeking student at FSU, you can only transfer equivalents of the specific courses in the FSU general education program for general education credit and equivalents of the specific courses in your major or minor for program credit.

If you are an undergraduate student applying for readmission after an absence of at least five calendar years, and you have earned credit for general education courses at a Maryland public higher education institution during your absence, you might receive general education credit at FSU. The evaluation of transfer credits occurs at the time of readmission; therefore, you must provide official transcripts before the start of the semester in which you’re being readmitted.

If you have 0-89 total credits earned (including previous transfer credit, credits in which you currently are enrolled at FSU or elsewhere, and the requested credits off-campus), you must follow these procedures:

1. Obtain a list of course offerings and catalog descriptions for the course(s) you want to take at another institution.
2. Complete the Authorization to Attend Another Institution Form in the Registrar’s Office.

If you have 90 or more total credits (including previous transfer credits and credits in which you currently are enrolled at FSU or elsewhere), you may transfer a maximum of seven additional credits of general education or general elective course work, provided that you still earn a minimum of 30 credits towards the degree at Frostburg State University. These credits may include courses that count toward the major or minor only if you will earn half of your major or minor credits at Frostburg State University. After you have a total of 90 or more credits:

1. Your academic advisor (or department chair/coordinator) must give prior approval for additional transferred course work that counts toward the major or minor.
2. Your department chair or coordinator must give prior approval for additional transferred course work that counts toward the major or minor.

If you have 70 credits transferred from two-year colleges, you cannot transfer additional credit from a two-year college. This is a State regulation and no exceptions are allowed.

Exceptions to the rules specified above require a written appeal to the Academic Standards Subcommittee at least one month prior to the term in which you wish to study at another institution.

Auditors

To be an auditor (one enrolled for non-credit instruction in a course), ordinarily you must have earned a place on the Dean’s List (at least a 3.40 average) the preceding semester. You also may request to audit a class in which you previously have received credit if a period of time has elapsed since you enrolled in the course and you wish to refresh your knowledge prior to enrolling in a sequence course. Finally, if you are a non-degree student enrolling in a course for personal enrichment you may enroll as an auditor. You are charged the same tuition and fees for audit courses as for credit courses. You may be an auditor only if you have the consent of the instructor, ordinarily your advisor, and the Associate Provost and if space is available. If the space is needed, registrants for credit may supplant auditors.

As an auditor, you are expected to attend regularly but do not participate in class discussion except upon request. You are not required to write papers or take quizzes, tests, or examinations. No credit or grade will be earned, but the audited course when completed will carry the symbol AU (Audited). You are not eligible for credit by examination to cover a course you have audited. Courses which have been audited may not be taken for credit.

To be admitted to class as an auditor, you must be officially registered. You may secure approval to audit through the drop/add period.
Testing

The University provides testing programs designed to help students through their academic careers. As a result of these measurements of aptitude and achievement, students with varied personal and educational backgrounds can evaluate their relative strengths and weaknesses. Because other colleges throughout the country administer the same tests, it is possible to compare FSU students with other college students objectively. The University makes use of this knowledge in planning the curriculum and in advising students about their programs.

Testing for First-year Students

A. SAT:
To enroll in the University, you are required to submit the results from the College Board SAT. Take these tests at any convenient center on one of the dates assigned by the College Entrance Examination Board. Get detailed information at local high schools. If you take the American College Tests, it is recommended that you request a transcript of the information at local high schools. If you take the American College Tests, it is possible to compare FSU students with other college students objectively. The University makes use of this knowledge in planning the curriculum and in advising students about their programs.

B. Testing Policies of FSU:
1. All entering first-time students will be administered diagnostic placement tests in reading, writing and mathematics to determine their strengths and weaknesses in those areas. Transfer students with more than 12 credits who have not transferred Freshman Composition and/or a college-level mathematics course will also be required to take the appropriate diagnostic placement test(s).
2. If you earn below a predetermined standard on these examinations, you will be required to participate in specified courses in your first semester to develop your skills to a level which is expected of all entering students. You may not withdraw from these courses unless you are withdrawing from the University. If you are unsuccessful, you must re-enroll in the relevant course(s) in your second semester, and in each subsequent semester until you receive a P or C grade in the course.

Senior Testing

Some graduate schools and advanced professional programs may require aptitude or achievement test scores for admission. Most of the commonly needed tests such as the Graduate Record Exam and Graduate Management Admissions Test are given on campus. The PRAXIS exam, which is required for Maryland certification as well as for certification in several other states, is also offered. Dates for these tests are publicized on campus. Further information about these and other tests is available in Counseling and Psychological Services.

Non-Graded Assessment Requirements

Assessment is the evaluation of learning used to improve teaching and academic programs. It is designed to identify patterns of strengths and weaknesses in student learning so that changes can be made that will benefit students. Some non-graded assessment activities may be voluntary, others may be required for graduation.

Credit by Examination

In addition to earning credit at FSU or transferring course credit from other accredited institutions, you may acquire credits through examination. Examinations accepted include: Advanced Placement Examinations, College Level Examination Programs (CLEP), the International Baccalaureate Programme and special departmental examinations. Students who believe they may qualify for credit by exam must take the examination prior to signing up for the course. See the Policies section of this catalog for details on credit by exam procedures.

Transcripts of Records

To obtain an official transcript, fill out the proper form in the Registrar’s Office or file a request online through your PAWS account. Official transcripts will be forwarded to designated parties or may be picked up in person.

Withdrawal From the University

To leave the University, you must withdraw officially by completing the following procedure. Failure to follow this procedure may jeopardize the right to withdrawal without penalty and to any refunds (see Refunds Policy in the catalog section on Expenses).

To withdraw from the University prior to the end of the drop/add period for the semester in which you are enrolled, you must notify the Registrar’s Office in writing. That office will remove you from your classes and notify the Business Office that you will not be attending the current semester. You must contact the Business Office to arrange any refund that may be due to you.

If you withdraw after the end of the drop/add period for a semester in which you are enrolled, your permanent academic record will always carry one of the following notations, as well as the date on which withdrawal procedures were completed. You will receive a W in each class if you withdraw within the first 60 percent of a term; W or WF depending on the circumstances surrounding your withdrawal after the first 60 percent of a term; or FX, unofficial withdrawal. A W or WF will not be considered after the last day of classes.

To be eligible for the W after the first 60 percent of a term, you must provide written documentation of extenuating circumstances (such as medical problems) to the Office of the Vice President for Student and Educational Services. With approval of the Office of the Provost, the Registrar’s Office will post a W for all courses and notify all other relevant campus offices of your withdrawal.
If you withdraw without notification, the date of withdrawal will not be known, and you will not be entitled to Ws on your transcript; grades will reflect instructors’ appraisal of your overall performance, usually FX.

If you officially withdraw from the University near the end of a semester because of academic difficulty and receive WFs in courses for which you were registered, you may, as a result of your new cumulative grade point average, be academically dismissed from the University.

Once you withdraw, particularly for reasons other than medical, the University is not obliged to readmit you. Readmission especially will not be approved if you withdraw to circumvent regulations.

**Call to Active Military Duty**

A student called to active military duty during a national or international crisis or conflict should inform the University of the reason for his/her withdrawal prior to leaving, including presentation of copies of appropriate military orders, in order to benefit from special policies and procedures governing interruption of one's academic career for such military service. Please contact any one of the following offices. The designated contact person in each office will assist in facilitating your withdrawal and will contact other offices to insure that special exemptions concerning refunds and W or I grades are applied:

**Veterans’ Affairs**  
Sand Spring Hall 110  
Phone: 301.687.4409  
Fax: 301.687.3065

**Office of the Registrar**  
Pullen 144  
Phone: 301.687.4347  
Fax: 301.687.4597

**Student Affairs**  
Hitchins 116  
Phone: 301.687.4311  
Fax: 301.687.4937

**Leave of Absence**

If you withdraw from Frostburg State University with the intent to return within a semester or a year, you may request a leave of absence. If you are on a official leave of absence, you will continue to receive course work that will meet the remaining credit for students seeking a degree at FSU. If you plan study abroad during your leave, you must use the procedures currently in place for international study, administered by the Center for International Education.

You must keep the University informed of your permanent and local addresses during your leave in order to receive the privileges specified. If you do not enroll at the University at the end of the time period specified in your leave request, you will need to go through the readmission process whenever you return.

**Graduation**

To graduate with a baccalaureate degree, you must earn a minimum of 120 semester hours of credit and fulfill all degree requirements. You may graduate in fewer than eight semesters by attending summer sessions and/or Intersession, or by carrying more than 15 semester hours per semester. To accelerate, you should plan your program well in advance with your advisor.

You may enroll as a part-time student, carrying as many as 11 semester hours in the regular program.

To graduate on a given date, you must make application on a form furnished by the Registrar's Office (also available online in PAWS). Submit the application to the Registrar’s Office when you complete 70 credit hours, or at least one year prior to your proposed graduation date.

To participate in commencement, you must have successfully completed, or be enrolled in the semester prior to the ceremony, in all course work required for you to complete your degree. If you complete your degree requirements in January or May, you are eligible to participate in the May commencement ceremony. If you complete your degree requirements in July, August, or December, you are eligible to participate in the December commencement ceremony.

Exceptions to these rules require a written request to the Registrar’s Office at least three weeks prior to the commencement ceremony, accompanied by evidence that you have enrolled in, and paid tuition for, course work that will meet the remaining requirements during the summer session immediately following May commencement or the January Intersession immediately following December commencement. Permission will be granted only if you have no more than two courses totaling no more than nine credits remaining to complete your degree and have a 2.0 cumulative FSU grade point average and a 2.0 cumulative FSU grade point average in your major at the time of the request, as determined by the official degree audit performed by the Registrar.

Participation in commencement does not confer a degree. Your degree will be posted on your official transcript and you will receive a diploma only after you have documented that you have met all degree requirements.

**Graduation With Honors**

If you have completed at least 50 credits at this University with a high cumulative grade point average, your scholastic achievement is recognized in the honors degree, awarded as follows:

- **Cum Laude** from 3.400 to 3.649
- **Magna Cum Laude** from 3.650 to 3.899
- **Summa Cum Laude** 3.900 and above
Academic Standards

Grades
Your progress as a student is evaluated and officially reported at the end of each semester. Letter grades are used to record achievement. Generally, grades represent standards of comprehension of knowledge and the ability to communicate knowledge, and are recorded on your permanent record at the end of each semester.

The grading symbols used at Frostburg State University are as follows:

- A Superior
- B Above average
- C Average
- D Passing, but below average
- F Failure
- P Pass
- W Withdraw
- WF Withdrawed after the withdrawal deadline (counts as an F, failure)
- FX Withdrew unofficially (counts as an F, failure)
- NC No credit
- I Incomplete
- AU Audit (no credit earned)
- NR Grade not provided by instructor
- CS Continued Study Required (you must enroll in a course which satisfies the requirement in the next semester). Only available in English and mathematics courses that meet Core Skills Requirements.
- N Non-pass (not permitted except where P/N is the only method of evaluation for a particular course)
- AP, CE, CL, IB, PT - Pass by examination

Incompletes
The grade I (Incomplete) may be given at the instructor’s discretion in exceptional, documented cases if, after completing most of the work in a course, because of illness or other reasons beyond your control, you are unable to complete the remaining course requirements. An I may be removed and another grade substituted if you complete the course requirements to the instructor’s satisfaction within six weeks of the beginning of the following semester. If you fail to remove the Incomplete within the prescribed period, the I will automatically be replaced by an F on your permanent record. It is your responsibility to make arrangements to complete the course requirements for the removal of the I.

Withdrawal
W-Withdraw; WF-Withdraw After Deadline (Failing); FX-Withdrew Unofficially (Failing). The FX will be given only if you have failed to withdraw or drop officially or have stopped going to class prior to the end of the semester. Failure to pass the course because you did not take the final exam or complete other course requirements will be recorded as an F grade rather than an FX.

NC Grade
The grade NC (No Credit) is to be used at an instructor's option (instead of a grade of F) if you have put forth effort to master the content of the course but have not achieved at a level to warrant a grade above F. The NC grade may be used only if you have earned fewer than 60 credits at the end of the term preceding the term in which the NC is earned.

Limited Pass/Fail Option
You may take only one course per semester on the Pass/Fail Option and no more than four courses Pass/Fail during your college career. You will receive the grade of P for each of these courses passed. Credits earned in a course in which a P is received will be counted toward the number of semester hours of credit required for graduation. If you fail to do passing work in such a course, you will be graded F. The grade of P will not be used in the computation of cumulative grade point average; a grade of F will be computed.

Upon approval of your advisor, at final registration or up to eleven class days following registration, you may elect the P/F option for a course by submitting a form to the Registrar's Office. At no time during the semester will an instructor be informed by any administrative office which students are enrolled for P/F credit. The instructor will assign grades of A, B, C, D, FX, or F to each student, and the Registrar's Office will then enter grades of P for students earning A, B, C, or D but will retain a grade of FX or F.

If you wish to transfer or attend graduate school where letter grades are necessary, you may request, in writing, that the Registrar's Office provide letter grades for those courses in which a P was received. The FX will be given only if you have failed to pass the course because you did not take the final exam or complete other course requirements.

The P/F option may not be used for any course taught by your major or minor department or which fulfills your major or minor requirements, including those courses which are required by, but offered outside of, the major or minor department.

3. If you are on academic probation, you are not eligible to enroll in a course on a P/F basis.

4. You may not elect to take more than one course per semester for P/F credit. The total number of courses you may elect to take for P/F credits is four.

5. Once registered in a course on a P/F basis, you may not later choose to take the course on the conventional letter-grade system, except as noted in number 6 below.

6. If you change your academic program so that a course previously taken for P/F credit becomes a requirement for a major, minor, or a professional program, you will receive the conventional grade originally reported by the instructor.

7. You may drop a P/F course the same as any other course.

8. You are subject to the same prerequisites and requirements for the course as is the student enrolled in the course under the standard grading system.

9. To be eligible for the Dean's List, you must take 12 semester hours of graded credit; thus 9 graded credits and 3 credits on a P/F basis do not qualify you for consideration.

Specifically, the P/F option may be used only for elective courses outside of the General Education Program, majors, minors, and concentrations.

Mid-semester Warnings
Faculty members will assess students’ progress in all 100- and 200-level courses, and in all courses that meet Core Skills Requirements in the General Education Program, prior to mid-semester. Students performing at the D or F quality level will be issued a mid-semester warning early in the seventh week of classes. Students are responsible for discussing their performance with their instructors immediately.
Grade Points and Grade Point Averages

A four-point system is used to indicate quality of academic work through a grade point average:

<table>
<thead>
<tr>
<th>Grade points per semester hour</th>
<th>Grade</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F, WF, FX</td>
<td>0</td>
</tr>
</tbody>
</table>

Grades of P, PT, N, NR, NC, I, W, AU, and CS are not used in computation of averages.

The grade point average for a semester is determined by dividing the total number of grade points by the total number of semester hours graded with A, B, C, D, F, WF, and FX that semester.

The cumulative grade point average is found by dividing the total grade points earned in all courses completed at Frostburg State University by the total number of semester hours graded with A, B, C, D, F, WF, and FX at FSU. For example: a junior has attempted 80 semester hours at Frostburg and has earned a total of 192 grade points. The cumulative GPA is 2.40. If a course is repeated, the last grade earned is included in the computation. (See Course Repetition section below.)

A faculty member desiring to change a student’s grade that has already been recorded with the Registrar must submit to the Registrar a Change of Grade form stating the reasons for the change. If the change of grade is not from “I” (incomplete) to a letter grade, the form must be approved by the Chair of the Department (or the Dean of the College if the Chair is the instructor) in which the course resides.

Grading

A course may be counted toward graduation requirements only once regardless of how many times it is repeated unless the officially approved course description states that the course can be repeated for credit.

Beginning with courses repeated in fall 2007 and after, when you repeat coursework in which you earned a grade of A, B, C, D, F, FX or WF, the last grade earned, whether higher or lower, will count in your cumulative grade point average. Only a grade of A, B, C, D, F, FX, WF, or P (in courses where all students are graded P/F) can replace the previous grade earned. The earlier grade will continue to appear on your transcript, but the credit hours attempted or earned and the grade earned in the previous attempt will not be used in calculating the cumulative grade point average and cumulative credits. The coursework must be repeated at Frostburg State University. (See the special rule above concerning approvals required for course repetitions in your major.)

Change of Grades

A course may be counted toward graduation requirements only once regardless of how many times it is repeated unless the officially approved course description states that the course can be repeated for credit.

Prior written approval of the advisor and the department chair is required to repeat a course in which a satisfactory grade has been earned (whether a grade is considered “satisfactory” in a given major is defined by each department).

Dean’s List

Shortly after the end of each semester, the Dean of each School announces the names of students recorded on the Dean’s List. The list includes all students who have earned a grade point average of at least 3.40 with at least 12 semester hours of graded credit for the semester.
Standards Governing Academic Probation and Dismissal

A cumulative grade point average (GPA) of 2.0 is the minimum standard acceptable for work leading to a bachelor’s degree. If your cumulative GPA falls below 2.0, you will be placed on academic probation or be subject to academic dismissal.

Review of Student Records

Your records will be reviewed for possible dismissal at the end of the fall and spring semesters and the second six-week summer session. If you do not meet prescribed standards at the end of the spring semester, you will be so informed, but you will be permitted to attend any summer session except the third four-week session. You will need to meet the standard prescribed for your number of earned hours and number of semesters on probation no later than the end of the second six-week session or you will be dismissed and not allowed to apply for readmission until the following summer.

Academic Dismissal

You will be dismissed for unsatisfactory scholarship if any one of the following conditions applies:

1. Your earned cumulative grade point average is 0.0.
2. You fail to meet the basic skill standard in reading, writing and/or mathematics (as defined in the section of the catalog on testing policies).
3. You fail at least half of the semester hours of credit in any single semester while on academic probation.
4. You fail to meet the minimum academic progress standard for your number of earned hours while on academic probation. (See table on this page.)
5. You remain on academic probation for three successive semesters without achieving a cumulative GPA of at least 2.0. Any enrollment in a summer session counts as one semester on probation.

Dismissal Conditions

1. You will not be allowed to enroll at Frostburg State University for at least two semesters. The summer sessions are considered the equivalent of one semester.
2. After the minimum two-semester dismissal period, you are eligible to apply for readmission through the Admissions Office. Readmission is not guaranteed. (See the section on readmission in the admissions section of the catalog.)

Dismissal Appeals

You may appeal your dismissal for unsatisfactory scholarship. To do so:

1. Submit a letter of appeal to the Academic Standards Subcommittee, c/o the Associate Provost, who serves as Chair.
2. You must submit your letter of appeal and all documentation by the deadline specified in the academic dismissal notice. Letters of appeal received after the deadline will not be considered.
3. Your letter of appeal must demonstrate that your poor academic performance has resulted directly from serious physical, emotional or other personal problems. You must detail the reasons for your poor academic performance and provide documentation of the existence of the problems. You must show that the problems described have been addressed and that there is reason to believe that these problems will no longer affect your academic performance.
4. The University reserves the right to deny the dismissal appeal of any student whose former records and/or observed conduct are incongruent with the established guidelines for student behavior and academic responsibility at Frostburg State University.
5. If you are reinstated on appeal, you will have to agree to meet specified conditions listed in the response to your appeal.

Academic Probation

1. If you have earned a cumulative GPA above 0.00, but below 2.0, you will be placed on academic probation.
2. If you are a first-time FSU student placed on probation whose GPA is less than 1.40, you must meet with an assigned advisor to develop an academic recovery plan, and may enroll in no more than 13 credit hours during the following semester. Academic recovery plans must be submitted to the Center for Academic Advising and Retention.
3. You will be allowed to continue to enroll on academic probation if you meet the minimum academic progress standard for your number of earned hours (see table on this page), but for no longer than three successive semesters.
4. If you are on academic probation during the fall semester, you may not register for January Intersession courses. If you are on academic probation during the spring semester, or are placed on academic probation at the end of the spring semester, you may not register for the third four-week summer session.

Minimum Academic Progress Standards

The minimum academic progress standards you must meet in order to be continued on academic probation are as follows:

| Earned Hours | Minimum FSU GPA
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>0-14</td>
<td>1.00</td>
</tr>
<tr>
<td>15-29</td>
<td>1.40</td>
</tr>
<tr>
<td>30-44</td>
<td>1.60</td>
</tr>
<tr>
<td>45-59</td>
<td>1.80</td>
</tr>
<tr>
<td>60-above</td>
<td>2.00</td>
</tr>
</tbody>
</table>

1Total hours earned = all earned hours, graded and ungraded, including transfer credits.
2Cumulative FSU GPA = all letter grades (A, B, C, D, F, FX, WF) earned in all courses attempted at Frostburg State University, excluding prior grades in courses repeated at FSU and grade forgiveness. Enrollment at schools other than FSU can not improve the GPA because credits, not grades, transfer from these institutions.

Academic Warning

If your semester GPA falls below 1.5 and your cumulative GPA is below 2.5 you will be placed on academic warning, and must meet the warning conditions specified below.

Additional Probation and Warning Conditions

If you are on academic probation or warning, the following rules apply:

1. You may not enroll for more than 15 credit hours per semester.
2. You must have your course schedule and load reviewed and approved by your academic advisor. You must meet regularly with your advisor throughout the semester. (The Academic Standards Subcommittee seriously considers the written report of your advisor should you be subject to academic dismissal.)
Academic Eligibility for Athletes

As a student-athlete, you must be eligible according to the regulations of the National Collegiate Athletic Association and the academic eligibility standards of Frostburg State University. Specifically, in order to be eligible to participate in intercollegiate athletics, you must meet the following criteria:

1. Be regularly admitted as a degree-seeking student.

2. At the time of participation in intercollegiate athletics, be registered for and maintain enrollment in 12 or more credit hours, with the following exceptions:
   a. You may practice and compete during the vacation period immediately preceding initial enrollment provided you meet all other eligibility requirements.
   b. If you are an undergraduate student enrolled in the final semester of a baccalaureate program, who is certified as enrolled in all courses required to complete degree requirements by the Registrar’s Office, you may practice and compete while enrolled in less than 12 credit hours with the approval of the Director of Special Academic Services.
   c. If you are a graduate student who previously attended this institution as an undergraduate, you may practice and compete while enrolled in a minimum of nine credit hours with the approval of the Director of Special Academic Services.

3. Complete the maximum of four seasons of competition in any one sport during the first 10 semesters (15 quarters) of full-time enrollment in a collegiate institution.

4. If you are a transfer student who has ever participated in intercollegiate athletics:
   a. Be certified by the transfer institution as academically and athletically eligible had you remained at that institution. If you transferred from a four-year institution to a two-year college and then to Frostburg State University, you must have been both academically and athletically eligible had you remained at the previous four-year institution, or you must have completed 24 semester hours (or 36 quarter hours) of transferable degree credit and at least two full-time semesters (or three full-time quarters) of attendance at the two-year institution, in order to be immediately eligible at FSU, or

b. Complete two full time semesters in residence at Frostburg State University before being eligible to compete.

5. If you are a continuing or readmitted student:
   a. Pass a minimum of 24 credits since the beginning of the last season of competition in a particular sport, with the following exceptions:
      1) You may request that credits earned in excess of the minimum 24 credits per year in previous years be counted to meet the 24-credit requirement. Each “banked” credit may be counted only once. Credits earned in repeated courses that are not repeatable for credit may be counted only once. Banking must be approved by the Director of Special Academic Services.
      2) You may receive an exception to the 24-credit rule if you can document circumstances outside your control which interfered with your ability to complete the required credits in a particular year, but you are still making satisfactory progress towards graduation. Rules established by the NCAA for Divisions I and II serve as guidelines for acceptable circumstances. To request an exception, you must submit a written appeal to the Athletics Program Advisory Group.
   b. By the beginning of the fifth full-time semester, declare an academic major as proof of normal progress towards the degree.
   c. Meet the minimum academic progress standards defined for your academic level (see table on this page), with the following exceptions:
      1) If you are ineligible at the beginning of a semester, you may become eligible mid-semester only due to:
         a) Successful completion of a course in which you earned an incomplete (I) grade.
         b) An official grade change.
         c) A grade change due to recognition of an institutional error.
      2) You may request a waiver of the minimum GPA requirement (for an FSU GPA between 1.75 - 1.99 only) if compelling circumstances are present. Each request shall be considered on its own merits, independent of any other previous request. To insure consistency, waiver requests must be submitted to the Athletics Program Advisory Group. A record is kept of all waiver applications and the decisions rendered. Decisions are sent to the conference office as well.
   d. If you are allowed to re-enroll on academic probation or based on a successful appeal of academic dismissal, or you are readmitted on academic probation, you will not be allowed to participate in athletics unless your Frostburg State University cumulative grade point average meets the minimum specified above for the number of semesters of enrollment, and unless you have earned a total of 24 credits since the beginning of the last season of competition in a particular sport.

6. Requests for the application of the exceptions specified above must be submitted to the individual or committee listed. Requests for waivers of NCAA regulations must be submitted to the Director of Athletics for approval and transmission to the appropriate authorities.
**FSUBusiness Vision Statement:**

FSUBusiness will be recognized for its high-quality academic and experiential learning programs.

**FSUBusiness Mission Statement:**

FSUBusiness prepares students to successfully meet professional opportunities through a dynamic, student-centered educational environment that emphasizes leadership, notable and timely research, application of knowledge, and global experiential learning.

**Mission Statement Components:**

- FSUBusiness emphasizes excellence in teaching through innovative approaches, small-class environment, caring faculty, and interactive focus.
- FSUBusiness provides intellectual and professional development to students through coursework, research, and global experiential learning with a focus on leadership, ethical values, and community engagement.
- FSUBusiness measures students’ learning outcomes to ensure continuous improvement and positive impact of its programs.
- FSUBusiness engages business practitioners, alumni, students, and community and considers their input to enhance its programs.
- FSUBusiness provides professional development opportunities for enhancement of faculty’s teaching skills, research capabilities, practical application, and global experiential learning.

**Learning Goals for All FSUBusiness Undergraduate Programs:**

In addition to Institutional Learning Goals, the basic educational objectives of FSUBusiness undergraduate common body of knowledge courses (CBK) and its major programs are as follows:

1. Communication – Writing: We want our graduates to demonstrate skill and competence in written communication as such reflects their professional development.
2. Communication – Oral: We want our graduates to demonstrate skill and competence in oral communication as such reflects their professional development.
3. Problem Solving Skills – Applied: Qualitative: We want our graduates to demonstrate skill and knowledge in solving problems of a qualitative nature (analysis, synthesis, evaluation, etc.).
4. Problem Solving Skills – Applied: Quantitative: We want our graduates to demonstrate skill and knowledge in solving problems of a quantitative nature (analysis, computation, calculation, etc.).
5. Leadership Skills – General: We want our graduates to demonstrate skill and knowledge in leading groups to successful outcomes and results. (e.g., vision, goals, etc.).
6. Leadership in Teamwork and Collaboration Skills: We want our graduates to demonstrate skill and knowledge in leading. (e.g., collaboration, focus of goals, assist team, etc.).
7. Business Ethics and Values: We want our graduates to demonstrate knowledge and understanding of theories and concepts of ethics, the application of ethical principles and the expectations and needs of stakeholders.
8. Business Knowledge: Practice and Application: We want our graduates to demonstrate skills and knowledge appropriate to different business disciplines in capstone course project work of an applied nature.
9. Business Knowledge: CBK Knowledge & Skills: We want our graduates to demonstrate skills, knowledge, and competence across all discipline areas of the Common Body of Knowledge.
10. Business Knowledge: Majors and Concentrations: We want our graduates to demonstrate knowledge, competence, and skills in their major areas and/or concentrations.

**Programs offered in the College of Business**

**Majors:**
- Accounting
- BS Accounting/MBA Dual Degree
- Business Administration
  - Concentrations:
    - Finance
    - General Management
    - Global Business
    - Hospitality Management
    - Human Resource Management
    - Marketing
    - Small Business/Entrepreneurship
- Economics
  - Concentrations:
    - Business Economics
    - Public Policy Economics
    - Quantitative Economics

**Minors:**
- Accounting
- Business Administration
- Economics
- Finance
- Financial Services
- Management
- Marketing
- Small Business/Entrepreneurship

**Dr. Ahmad Tootoonchi**
Dean, College of Business
125 Guild Center
301.687.4019

**Dr. Sudhir Singh**
Associate Dean, College of Business
231 Guild Center
301.687.4093
FSUBusiness Common Body of Knowledge (CBK)

All accounting, business administration and economics-business concentration students are required to complete the following courses with grades of C or better:

**Outside FSUBusiness (18-19 hours)**
- CMST 102/112 Introduction to Human Communication
- COSC 220 Software Applications for Business (Tech. Fluency)
- ECON 201/211 Principles of Economics (Macro) (GEP Group D)
- ECON 202/212 Principles of Economics (Micro)

Select one of the following (3-4 hours)
- MATH 118 Applied Mathematics for Business
- MATH 220 Calculus for Applications I
- MATH 236 Calculus I (Core Skill 3)

Select one of the following (3 hours)
- MATH 109/110 Elements of Applied Probability and Statistics (Core Skill 3)
- MATH 380 Introduction to Probability and Statistics

**Inside FSUBusiness (33 hours)**
- ACCT 211 Financial Accounting
- ACCT 212 Managerial Accounting
- BLAW 291 Legal Environment of Business
- FINA 370 Corporate Finance (for BUAD majors)
  - or FINA 476 Financial Management (for ACCT and business ECON majors)
- MGMT 110 Career and Professional Development I (1 hour)
- MGMT 251 Management of Organizations
- MGMT 310 Career and Professional Development II (2 hours)
- MGMT 355 Operations Management
- MGMT 356 Leadership and Human Behavior
- MGMT 405 Business Ethics and Social Responsibility
- MGMT 485 Business Policy and Strategy (MGMT Capstone)
- MKTG 361 Principles of Marketing
**Summary of Requirements for Major/Minor in Accounting**

### Major

<table>
<thead>
<tr>
<th>FSU Business CBK: (33 hours)</th>
<th>CBK Courses Outside FSU Business: (18-19 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 211* Financial Accounting</td>
<td>Communication Studies (3 hours)</td>
</tr>
<tr>
<td>ACCT 212* Managerial Accounting</td>
<td>CMST 102/112* Introduction to Human Communication</td>
</tr>
<tr>
<td>BLAW 291* Legal Environment of Business</td>
<td>Computer Science (3 hours)</td>
</tr>
<tr>
<td>FINA 476* Financial Management</td>
<td>COSC 220* Software Applications for Business (Tech. Fluency)</td>
</tr>
<tr>
<td>MGMT 110* Career and Professional Development I</td>
<td>Economics (6 hours)</td>
</tr>
<tr>
<td>MGMT 251* Management of Organizations</td>
<td>ECON 201/211* Principles of Economics (Macro) (GEP Group D)</td>
</tr>
<tr>
<td>MGMT 310* Career and Professional Development II</td>
<td>ECON 202/212* Principles of Economics (Micro)</td>
</tr>
<tr>
<td>MGMT 355* Operations Management</td>
<td>Mathematics (6-7 hours)</td>
</tr>
<tr>
<td>MGMT 356* Leadership &amp; Human Behavior</td>
<td>MATH 118* Applied Mathematics for Business</td>
</tr>
<tr>
<td>MGMT 405* Business Ethics and Social Responsibility</td>
<td>or MATH 220* Calculus for Applications I</td>
</tr>
<tr>
<td>MGMT 485* Business Policy and Strategy (Capstone)</td>
<td>or MATH 236* Calculus I (Core Skill 3)</td>
</tr>
<tr>
<td>MKTG 361* Principles of Marketing</td>
<td>MATH 109/110* Elements of Applied Probability and Statistics (Core Skill 3)</td>
</tr>
<tr>
<td></td>
<td>or MATH 380* Introduction to Probability &amp; Statistics</td>
</tr>
<tr>
<td></td>
<td>3. Distribution Within Department: (24 hours)</td>
</tr>
<tr>
<td>ACCT 305* Accounting Systems</td>
<td>ACCT 311* Intermediate Accounting I</td>
</tr>
<tr>
<td>ACCT 311* Intermediate Accounting I</td>
<td>ACCT 312* Intermediate Accounting II</td>
</tr>
<tr>
<td>ACCT 312* Intermediate Accounting II</td>
<td>ACCT 313 Intermediate Accounting III</td>
</tr>
<tr>
<td>ACCT 315* Cost Accounting</td>
<td>ACCT 325 Auditing</td>
</tr>
<tr>
<td>ACCT 325 Audit</td>
<td>ACCT 401 Advanced Financial Accounting</td>
</tr>
<tr>
<td>ACCT 401 Advanced Financial Accounting</td>
<td>ACCT 420 Tax</td>
</tr>
</tbody>
</table>

### Minor

<table>
<thead>
<tr>
<th>FSU Business CBK: (6 hours)</th>
<th>CBK Courses Outside FSU Business: (0 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 211* Financial Accounting</td>
<td></td>
</tr>
<tr>
<td>ACCT 212* Managerial Accounting</td>
<td></td>
</tr>
</tbody>
</table>

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**Combined BS/MBA Option**

- **Professors:** Bandura, R. Johnson, Middleton, Shaffer (Chair)
- **Associate Professors:** Bao, Groer, Venezia
- **Assistant Professor:** Tilley
- **Lecturer:** Gilmore

- You must have at least a 2.0 grade point average in Accounting Department offerings in order to graduate.
- MBA courses for the combined BS in Accounting/MBA option may be completed online.

*You must receive a grade of "C" or better for this course to count toward major or minor.*
Combined B.S. in Accounting/MBA Program

A 150-hour combined BS/MBA program enables eligible students to complete FSU's BS in Accounting and MBA degree programs with 150 hours of academic credit. Separate pursuit of these degrees would require a minimum of 156 hours of course work. All CPA exam candidates in many states, including Maryland, are required to complete 150 hours of academic credit. Completion of this combined BS/MBA program will meet all educational requirements for CPA exam candidacy in many states, including Maryland. This program is available to students who have graduated or will be graduating from FSU with a bachelor's degree in accounting. Current undergraduate students should apply in the final semester of their senior year by March 15 for fall and Oct. 15 for spring. Applications should be submitted to the Office of Graduate Services.

Eligibility requirements for the combined BS in ACCT/MBA:

a) Declared accounting major at FSU, or FSU accounting graduate.

b) A minimum score of 450 on the GMAT [GRE can be substituted for GMAT and scores will be converted to equivalent GMAT scores based on percentile distributions. GMAT/GRE can be waived if undergraduate GPA is 3.25 or higher (based on 4.0 scale) combined with a minimum of 2 years of relevant work experience.]

c) Cumulative and major GPA of 2.5 or better at the time of application.

d) Application for admission to the 150-hour program must be approved by the Department of Accounting.

Summary of Requirements for Combined BS/MBA Option

1. Complete all requirements for baccalaureate degree in accounting.
   See previous page.

2. Complete the following additional MBA courses: (30 hours)
   
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 510</td>
<td>Leadership and Ethics</td>
</tr>
<tr>
<td>ECON 511</td>
<td>Economics for Managers</td>
</tr>
<tr>
<td>MGMT 512</td>
<td>Management Decision Analysis</td>
</tr>
<tr>
<td>MGMT 542</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>BMIS 607</td>
<td>Information Management</td>
</tr>
<tr>
<td>FINA 610</td>
<td>Financial Management</td>
</tr>
<tr>
<td>MGMT 620</td>
<td>Strategic Human Resource Management</td>
</tr>
<tr>
<td>MKTG 640</td>
<td>Marketing Management</td>
</tr>
<tr>
<td>MGMT 680</td>
<td>Strategic Integration*</td>
</tr>
<tr>
<td>MGMT 690</td>
<td>Special Topics in Management**</td>
</tr>
</tbody>
</table>

*MGMT 680 must be taken in the last 6-9 credits of study.
**While there are no prerequisites, MGMT 690 should be taken in the last semester/s.
Business Administration

Major

Minor

Concentrations in:
- Finance
- General Management
- Global Business
- Hospitality Management
- Human Resource Management
- Marketing
- Small Business/Entrepreneurship

Department of Management and Department of Marketing and Finance

Professors:
Ashley-Cotleur, Gaumer (Chair, Department of Marketing and Finance), Offstein, Plucinski, Rahman, Shah, Shin, Singh, Tootoonchi

Associate Professors:
Dean, Harrell-Cook, Mattare, McClellan, Monahan (Chair, Department of Management), Shore, Sigerstad, Ye

Assistant Professors:
Ashraf, Chory, Han, Huh, Levitt, Venezia

Lecturers:
Arnone, Kentrus, Schrader

- All concentrations may be completed at the Frostburg campus. The concentrations in General Management and Hospitality Management may be completed at the University System of Maryland at Hagerstown.

Summary of Requirements for Major/Minor in Business Administration

Major

| Hours Required in FSU Business Common Body of Knowledge: | 33 | 18 |
| Hours Required in Concentration: | 27 | 0 |
| Hours Required in CBK Outside FSU Business | 18-19 | 3 |
| Total Hours Required for Major/Minor | 78-79 | 21 |

Minor

1. FSU Business CBK: (18 hours)
   - ACCT 211* Financial Accounting
   - BUAD 100 Introduction to Business
   - or FINA 370 Principles of Finance
   - or FINA 370 Corporate Finance
   - or FINA 476 Financial Management
   - MGMT 251 Management of Organizations
   - MGMT 356 Leadership & Human Behavior
   - or BMIS 455 Management Information Systems
   - MKTG 361 Principles of Marketing

2. CBK Courses Outside FSU Business: (18-19 hours)
   - Communication Studies (3 hours)
     CMST 102/112* Introduction to Human Communication
   - Computer Science (3 hours)
     COSC 220* Software Applications for Business
     (Tech. Fluency)
   - Economics (3 hours)
     ECON 202/212* Principles of Economics (Micro)
     ECON 210/211* Principles of Economics (Macro) (GEP Group D)
   - Mathematics (6-7 hours)
     MATH 118* Applied Mathematics for Business
     or MATH 220* Calculus for Applications I
     or MATH 236* Calculus I (Core Skill 3)
     MATH 109/110* Elements of Applied Probability and Statistics
     (Core Skill 3)
     or MATH 380* Introduction to Probability and Statistics
   - Area of Concentration: (27 hours)
     Majors must choose to concentrate in one of the following:
     - Finance
     - General Management
     - Global Business
     - Hospitality Management
     - Human Resource Management
     - Marketing
     - Small Business/Entrepreneurship

*You must receive a grade of C or better for this course to count toward major.
Requirements for Concentration in Finance

1. Core Courses (51-52 hours)
   Required of all majors in Business Administration; listed above.

2. Required Courses in Concentration (12 hours)
   FINA 375 Financial Institutions Management
   FINA 475 Securities Investment
   FINA 476 Financial Management
   FINA 479 Financial Policy (Capstone)

3. Elective Courses (15 hours)
   Select five courses from among the following:
   ACCT 420 Tax
   FINA 301 Introduction to Personal Financial Planning
   FINA 371 Insurance Planning and Risk Management
   FINA 377 Retirement Income Planning
   FINA 381 Principles of Real Estate
   FINA 405 Short-term Financial Management
   FINA 420 Entrepreneurial Finance
   FINA 451 Estate Planning and Advanced Topics in Financial Planning
   FINA 477 International Financial Management
   FINA 494 Internship in Finance

Or select three courses from above and two courses from among the following:
   ACCT 311 Intermediate Accounting I
   ACCT 312 Intermediate Accounting II
   ACCT 330 Governmental and Nonprofit Accounting
   ACCT 340 Financial Reporting Issues
   ECON 306 Money and Banking
   ECON 351 Intermediate Macroeconomics
   ECON 352 Intermediate Microeconomics
   ECON 400 International Trade

Requirements for Concentration in Global Business

1. Core Courses (51-52 hours)
   Required of all majors in Business Administration; listed above.
   NOTE: MGMT 485 Business Policy and Strategy serves as concentration capstone

2. Required Courses in Concentration (18 hours)
   ECON 400 International Trade
   FINA 477 International Financial Management
   INTR 330 International Business
   INTR 491 Global Business Seminar (Capstone)
   MGMT 450 International Management
   MKTG 460 Global Marketing

3. Electives (9 hours)
   Select three from the following 3-credit courses:
   CMST 350 Intercultural Communication
   ECON 309 Comparative Economic Systems
   ECON 401 International Finance
   ECON 405 Economics of Developing Countries
   FINA 494 Internship in Finance
   or MGMT 494 Internship in Management
   or MKTG-494 Internship in Marketing
   GEOG 407 Political Geography
   INTR 490 Special Topics in Global Business
   SPAN 101 Basic Elements of Spanish I
   or FREN 101 Basic Elements of French I
   or MDFL 190 Selected Topics in Foreign Language and Literature
   SPAN 102 Basic Elements of Spanish II
   or FREN 102 Basic Elements of French II

   An additional 3 credits of foreign language study, in the same language

Requirements for Concentration in Hospitality Management

1. Core Courses (51-52 hours)
   Required of all majors in Business Administration; listed above.
   NOTE: MGMT 485 Business Policy and Strategy serves as concentration capstone.

2. Required Courses in Concentration (21 hours)
   HMGT 101 Analysis of the Hospitality Industry (3 credits at UMES)
   HMGT 396 Special Topics in Hospitality Management (12 credits)
   Approved courses will be 6 weeks of study abroad at Vanung University in Taiwan.
   HMGT 401 Law and the Hospitality Industry (3 credits at UMES)
   MGMT 494* Internship in Management (3 credits)

3. Electives (6 hours)
   Select from the following:
   BMIS 455 Management Information Systems (3 credits)
   GEOG 454 Geography of Tourism (3 credits)
   GEOG 455 Tourism Planning (3 credits)
   HMGT 350 Marketing Hospitality and Leisure Services (3 credits at UMES)
   INTR 330 International Business (3 credits)
   MGMT 315 New Business Ventures (3 credits)
   MGMT 357 Human Resources Management (3 credits)
   MGMT 359 Quality Management (3 credits)
   MGMT 425 Entrepreneurial Business Plan (3 credits)
   MGMT 450 International Management (3 credits)
   MGMT 490 Special Topics in Business Administration – MGMT (3 credits)
   MGMT 494* Internship in Management (internship credits in concentration may not exceed 6 credits)
   MGMT 499 Independent Study in Management (3 credits)
   RECR 448 Principles of Ecotourism (3 credits)

*Internship must be performed at Rocky Gap or any hotels and resorts.
Requirements for Concentration in Human Resource Management

1. Core Courses (51-52 hours)
   Required of all majors in Business Administration; listed above.
   NOTE: MGMT 485 Business Policy and Strategy serves as concentration capstone

2. Required Courses in Concentration (15 hours)
   - MGMT 357 Human Resources Management
   - MGMT 450 International Management
   - MGMT 452 Staffing and Development
   - MGMT 456 Compensation Management
   - MGMT 457 Labor Relations

3. Elective Courses (12 hours)
   Select from among the following:
   - BMIS 455 Management Information Systems
   - CMST 300 Interpersonal Communication
   - CMST 335 Organizational Communication
   - ECON 301 Labor Economics
   - MGMT 315 New Business Ventures
   - MGMT 359 Quality Management
   - MGMT 425 Entrepreneurial Business Plan
   - MGMT 490 Special Topics in Business Administration – Management
   - MGMT 494 Internship (3 or 6 credits)
   - MGMT 499 Independent Study in Management

Requirements for Concentration in Marketing

1. Core Courses (51-52 hours)
   Required of all majors in Business Administration; listed above.

2. Required Courses in Concentration (15 hours)
   - MKTG 363 Advertising
   - MKTG 365 Consumer Behavior
   - MKTG 462 Marketing Research
   - MKTG 465 Marketing Strategies
   - MKTG 469 Marketing Plans Development (Capstone)

3. Elective Courses (12 hours)
   Select four (including at least two MKTG) from among the following:
   - ART 207 Graphic Design
   - CMST 322 Presentational Communication
   - GEOG 410 Locational Analysis
   - MGMT 359 Quality Management
     or MGMT 315 New Business Ventures
   - MKTG 364 Merchandising
   - MKTG 365 Professional Selling and Relationship Management
   - MKTG 460 Global Marketing
   - MKTG 466 Services Marketing
   - MKTG 467 Internet Marketing
   - MKTG 494 Internship in Marketing

Requirements for Concentration in Small Business/Entrepreneurship

1. Core Courses (51-52 hours)
   Required of all majors in Business Administration; listed above.
   NOTE: MGMT 485 Business Policy and Strategy serves as concentration capstone

2. Required Courses in Concentration (18 hours)
   - FINA 420 Entrepreneurial Finance
   - MGMT 315 New Business Ventures
   - MGMT 357 Human Resources Management
   - MGMT 359 Quality Management
   - MGMT 425 Entrepreneurial Business Plan
   - MKTG 366 Consumer Behavior

3. Elective Courses (9 hours)
   Select from among the following:
   - CMST 300 Interpersonal Communication
   - CMST 322 Presentational Communication
   - CMST 335 Organizational Communication
   - ECON 305 Managerial Economics
   - INTR 330 International Business
   - MGMT 450 International Management
   - MGMT 490 Special Topics in Business Administration – Management
   - MGMT 494 Internship in Management (3 or 6 credits)
   - MGMT 499 Independent Study in Management
Economics

Major

Business Concentration

Requirements for Major in Economics with Concentration in Business Economics

1. FSUBusiness CBK: (33 hours)
   - ACCT 211* Financial Accounting
   - ACCT 212* Managerial Accounting
   - BLAW 291* Legal Environment of Business
   - FINA 476* Financial Management
   - MGMT 110* Career and Professional Development I
   - MGMT 251* Management of Organizations
   - MGMT 310* Career and Professional Development II
   - MGMT 355* Operations Management
   - MGMT 356* Leadership & Human Behavior
   - MGMT 405* Business Ethics and Social Responsibility
   - MGMT 485* Business Policy and Strategy (Capstone)
   - MKTG 361* Principles of Marketing

2. CBK Courses Outside FSUBusiness: (21-22 hours)
   - Economics (6 hours)
     - ECON 201/211* Principles of Economics (Macro) (GEP Group D)
     - ECON 202/212* Principles of Economics (Micro)
   - Communication Studies (3 hours)
     - CMST 102* Introduction to Human Communication
   - Computer Science (3 hours)
     - COSC 220* Software Applications for Business (Tech. Fluency)
   - Mathematics (9-10 hours)
     - ECON 450* Quantitative Economics
     - and MATH 118* Applied Mathematics for Business
     - or MATH 220* Calculus for Applications I
     - or MATH 236* Calculus I (Core Skill 3)
     - MATH 109/110* Elements of Applied Probability and Statistics (Core Skill 3)
     - or MATH 380* Introduction to Probability and Statistics

3. Area of Concentration: (27 hours)
   - ECON 305* Managerial Economics
   - ECON 351* Intermediate Macro-Economics
   - ECON 352* Intermediate Micro-Economics
   - ECON 400* International Trade
     - or ECON 401 International Finance
   - ECON 460* Introduction to Econometrics
   - ECON 491* Seminar in Economics (Capstone)

   Select three of the following courses:
   - ECON 301 Labor Economics
   - ECON 306 Money and Banking
   - ECON 307 Government, Business, and Public Policy
   - ECON 408 Urban and Regional Economics
   - ECON 492 Internship Research Paper
   - ECON 494 Field Experience in Economics

* Note: You must receive a grade of C or better for this course to count toward the major.
Economics

Major

Concentrations in
• PUBLIC POLICY ECONOMICS
• QUANTITATIVE ECONOMICS

Professors:
W. Anderson, Mizak, Neral, Stair

Associate Professors:
Kiriazis (Chair), McCoskey

Assistant Professor:
Kucher, Rossi

All economics majors other than those with a business economics concentration must complete a common core curriculum. Students may major in economics without pursuing a specialized concentration or they may pursue a concentration in Business Economics, Public Policy Economics or Quantitative Economics.

The economics major without specialized concentration is appropriate for students with a social science perspective. It provides excellent preparation for entry-level employment in the private or public sectors, as well as for law school or graduate school.

The Concentration in Public Policy Economics is recommended for students who intend to seek employment in government or with other policy-oriented organizations.

The Concentration in Quantitative Economics is recommended for students who intend to seek employment in economic consulting or forecasting and/or pursue graduate study in economics.

A concentration in International Economics is available in the International Studies Major.

Minor

Concentrations in
• PUBLIC POLICY ECONOMICS
• QUANTITATIVE ECONOMICS

Professors:
W. Anderson, Mizak, Neral, Stair

Associate Professors:
Kiriazis (Chair), McCoskey

Assistant Professor:
Kucher, Rossi

All economics majors other than those with a business economics concentration must complete a common core curriculum. Students may major in economics without pursuing a specialized concentration or they may pursue a concentration in Business Economics, Public Policy Economics or Quantitative Economics.

1. Required Core Courses in Economics:
(18 hours)
ECON 201/211* Principles of Econ. (Macro) (GEP Group D)
ECON 202/212* Principles of Econ. (Micro)
ECON 351* Intermediate Macro-Economics
ECON 352* Intermediate Micro-Economics
ECON 460* Introduction to Econometrics
ECON 491* Seminar in Economics (Capstone)

2. Required Core Courses in Other Departments:
(3 hours)
MATH 109/110* Elements of Applied Probability and Statistics
(Core Skill 3)

3. Other Courses:
(18-42 hours)
Majors must choose from among the major in economics without specialized concentration, the public policy economics concentration or the quantitative economics concentration.

Requirements for Major in Economics
without specialized concentration

1. Core Courses: (21 hours)
Required of Economics majors; listed above.

2. Other Economics Courses: (15 hours)
ECON 300* History of Economic Thought
Students must also complete 12 additional elective credit hours in economics (excluding ECON 495) at the 300 or 400 level, of which at least 6 must be at the 400 level.

3. Courses in Other Departments: (3-6 hours)
MATH 236* Calculus I (Core Skill 3)
or MATH 118* Applied Mathematics for Business
and ECON 450* Quantitative Economics+
or MATH 220* Calculus for Applications I

Minors must also complete at least 6 additional credit hours in economics (excluding ECON 495) at the 300 or 400 level.

1. Required Core Courses in Economics:
(18 hours)
ECON 201/211* Principles of Econ. (Macro) (GEP Group D)
ECON 202/212* Principles of Econ. (Micro)
ECON 351* Intermediate Macro-Economics
ECON 352* Intermediate Micro-Economics
ECON 460* Introduction to Econometrics

2. Required Core Courses in Other Departments:
(3 hours)
MATH 109/110* Elements of Applied Probability and Statistics
(Core Skill 3)

3. Other Courses: (9-10 hours)
MATH 236* Calculus I (Core Skill 3)
or MATH 118* Applied Mathematics for Business
or MATH 220* Calculus for Applications I

Requirements for Minor in Economics

* Note: You must receive a grade of C or better for this course to count toward the major/minor.
* Note: If this option as selected, ECON 450 may not be used to satisfy an Economics elective.
Requirements for Major in Economics with Concentration in Quantitative Economics

1. Core Courses: (21 hours)
   Required of Economics majors; listed above.

2. Other Economics Courses: (15 hours)
   ECON 300 History of Economic Thought
   or ECON 303 American Economic History
   ECON 450 Quantitative Economics

   Students must also complete at least 9 additional elective credit hours in economics (excluding ECON 495) or Mathematics (excluding MATH 495) at the 300 or 400 level.

3. Courses in Other Departments: (7 hours)
   MATH 236* Calculus I (Core Skill 3)
   MATH 237 Calculus II
   MATH 350 Linear Algebra I

Requirements for Major in Economics with Concentration in Public Policy Economics

1. Core Courses: (21 hours)
   Required of Economics majors; listed above.

2. Other Economics Courses: (21 hours)
   ECON 300 History of Economic Thought
   or ECON 303 American Economic History
   ECON 307 Government, Business, and Public Policy
   ECON 309 Comparative Economic Systems
   or ECON 405 Economics of Developing Countries
   ECON 404 Public Sector Economics

   Select four of the following courses:
   ECON 301 Labor Economics
   ECON 306 Money and Banking
   ECON 400 International Trade
   ECON 401 International Finance
   ECON 408 Urban and Regional Economics
   ECON 410 Resource and Environmental Economics
   ECON 492 Internship Research Paper
   ECON 494 Field Experience in Economics

3. Courses in Other Departments: (3-6 hours)
   MATH 236* Calculus I (Core Skill 3)
   or MATH 220* Calculus for Applications I
   or MATH 118* Applied Mathematics for Business
   and ECON 450* Quantitative Economics

Summary of Requirements for Double Major in Secondary Teacher Education

If you wish to complete a Maryland State-approved program in teaching secondary social studies, you must:

- Complete the BA/BS in economics without concentration or with a concentration in public policy economics or quantitative economics.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- In addition to the regular Economics major requirements, you must take coursework in geography, history, political science, and social science in order to qualify for Maryland State certification in social studies and to meet NCATE accreditation standards. See the Secondary Teacher Education Program Coordinator for details.
Finance

Minor

Total Hours Required: 18

Coordinator: Dr. Carol Gaumer
Chair, Department of Marketing and Finance

- You cannot earn the minor in finance if you are completing a major in business administration with a concentration in finance.
- You cannot major in finance.

You should consider the minor in finance if you are completing a major not subject to the requirements of the FSU Business common body of knowledge – CBK (primarily majors outside the College of Business). This minor will give you the opportunity to learn the basic concepts and principles of finance, both for personal benefit and to explore a career in the finance profession.

Summary of Requirements for Minor in Finance

ACCT 211 Financial Accounting
ECON 200 Basic Economics or ECON 201/211 Principles of Economics (Macro)
FINA 303 Principles of Finance

Select three courses from among the following:
FINA 301 Introduction to Personal Financial Planning
FINA 370 Corporate Finance
FINA 371 Insurance Planning and Risk Management
FINA 375 Financial Institutions Management
FINA 377 Retirement Income Planning
FINA 381 Principles of Real Estate
FINA 405 Short-term Financial Management
FINA 420 Entrepreneurial Finance or FINA 476 Financial Management
FINA 475 Securities Investment
FINA 477 International Financial Management

Financial Services

Minor

Total Hours Required: 18

Coordinator: Dr. Carol Gaumer
Chair, Department of Marketing and Finance

- You cannot earn the minor in financial services if you are completing the major in business administration with a concentration in finance.
- You cannot major in financial services.

You should consider the minor in financial services if you are majoring in another discipline within the College of Business that requires you to complete the FSU Business common body of knowledge (CBK). You need to be prepared to take advanced finance courses.

Summary of Requirements for Minor in Financial Services

FINA 370 Corporate Finance or FINA 476 Financial Management

Select five courses from among the following:
FINA 301 Introduction to Personal Financial Planning
FINA 371 Insurance Planning and Risk Management
FINA 375 Financial Institutions Management
FINA 377 Retirement Income Planning
FINA 381 Principles of Real Estate
FINA 405 Short-term Financial Management
FINA 420 Entrepreneurial Finance
FINA 475 Securities Investment
FINA 477 International Financial Management

or FINA 476 Financial Management (if not selected to meet the requirement listed above)
Management

Minor

Coordinator:
Dr. Michael Monahan
Chair, Department of Management

- Only courses in which a grade of C or better is earned may count towards satisfaction of minor requirements.
- The Department of Management also offers concentrations in general management, human resource management and small business/entrepreneurship as specialties in the business administration major. Concentrators in these areas cannot minor in management.
- You cannot major in Management.

Summary of Requirements for Minor in Management

1. Required Courses: (6 hours)
   - MGMT 251 Management of Organizations
   - MGMT 405 Business Ethics and Social Responsibility

2. Elective Courses: (12 hours)
   Select from:
   - MGMT 315 New Business Ventures
   - MGMT 355 Operations Management
   - MGMT 356 Leadership and Human Behavior
   - MGMT 357 Human Resources Management
   - MGMT 359 Quality Management
   - MGMT 425 Entrepreneurial Business Plan
   - MGMT 450 International Management
   - MGMT 452 Staffing and Development
   - MGMT 456 Compensation Management
   - MGMT 457 Labor Relations
   - MGMT 490 Special Topics in Business Administration – Management
   - MGMT 494 Internship in Management (6 credits maximum)

Marketing

Minor

Coordinator:
Dr. Carol Gaumer
Chair, Department of Marketing and Finance

- Only courses in which a grade of C or better is earned will count towards satisfaction of minor requirements.
- Not open to students completing the marketing concentration in the business administration major.
- You cannot major in Marketing.

Summary of Requirements for Minor in Marketing

1. Required Courses: (6 hours)
   - MKTG 361 Principles of Marketing
   - MKTG 366 Consumer Behavior

2. Elective Courses: (12 hours)
   Select four of the following:
   - MKTG 363 Advertising
   - MKTG 364 Merchandising
   - MKTG 365 Professional Selling and Relationship Management
   - MKTG 460 Global Marketing
   - MKTG 465 Marketing Strategies
   - MKTG 466 Services Marketing
   - MKTG 467 Internet Marketing
Small Business/Entrepreneurship

Minor

Coordinator:
Dr. Michael Monahan
Chair, Department of Management

- Only courses in which a grade of C or better is earned may count towards satisfaction of minor requirements.
- The Department of Management also offers concentrations in general management, human resource management and small business/entrepreneurship as specialties in the business administration major. Concentrators in these areas cannot minor in small business/entrepreneurship.
- You cannot major in small business/entrepreneurship.

Summary of Requirements for Minor in Small Business/Entrepreneurship

1. Required Courses (18 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 251</td>
<td>Management of Organizations</td>
</tr>
<tr>
<td>MGMT 315</td>
<td>New Business Ventures</td>
</tr>
<tr>
<td>MGMT 356</td>
<td>Leadership &amp; Human Behavior</td>
</tr>
<tr>
<td>MGMT 357</td>
<td>Human Resources Management</td>
</tr>
<tr>
<td>MGMT 425</td>
<td>Entrepreneurial Business Plan</td>
</tr>
<tr>
<td>MKTG 361</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MINOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Management:</td>
</tr>
<tr>
<td>15</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>Total Hours Required:</td>
</tr>
<tr>
<td>18</td>
</tr>
</tbody>
</table>
Mission

The mission of the College of Education is to advance the study and best practices in the fields of teaching, kinesiology and recreation and parks management by providing its candidates with rigorous, experientially based curriculums in its varied programs. The college mission is implemented through a diverse, recognized and credentialed faculty committed to excellence in teaching, learning and scholarship. The College of Education fulfills its mission by preparing future leaders to enter a complex and global society with confidence and competence.

Vision

The College of Education will be recognized for providing experientially based learning opportunities. Its distinctive and distinguished programs will contribute to the reputation of Frostburg State University as the premier educational and cultural center for the region and for serving as a catalyst for economic development. The College’s efforts in undergraduate research and experiential learning will achieve national recognition for providing “real life” experiences for students and for serving as a national model for regional engagement.

Core Values

- We value a high standard or excellent teaching, service, research and other professional activities.
- We value stimulating, collaborative and supportive settings for students, faculty, staff and administrators characterized by creativity, innovation and excellence.
- We value lifelong learning and professional development for students, faculty, staff and administrators.
- We value an atmosphere of mutual respect and support, which promotes open sharing of ideas and viewpoints and debate and issues and concerns.
- We value high standards of ethics, integrity, responsibility, and accountability.
- We value the active participation of stakeholders in the planning and development of programs.
- We value diversity and an atmosphere of mutual respect and acceptance.
- We value interdisciplinary collaboration.
- We value assessment as a mechanism for continuous improvement.
- We value creative responses to change.

Programs offered in the College of Education

Department of Educational Professions
- Early Childhood/Elementary Education
- Elementary Education
- Elementary/Middle School
- Dual Certification
- P-12 Programs (PreK-12)
- Secondary Teacher Education
- Social Science

Department of Kinesiology & Recreation
- Adventure Sports Management
- Athletic Training
- Coaching
- Exercise & Sport Science
- Health & Physical Education
- Health Promotion
- Recreation & Parks Management

Dr. Clarence Golden, Jr.
Dean, College of Education
203-5 Framptom
301.687.3184

Dr. Roger S. Dow
Associate Dean, College of Education
203-2 Framptom
301.687.4216
FSU’s Teacher Education Report Card

Contextual Information

<table>
<thead>
<tr>
<th>Details</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of students admitted into teacher preparation, all specializations, AY 2013-2014</td>
<td>423</td>
</tr>
<tr>
<td>Number of students in supervised student teaching</td>
<td>168</td>
</tr>
<tr>
<td>Number of faculty members who supervised student teachers:</td>
<td></td>
</tr>
<tr>
<td>Full-time faculty in professional education</td>
<td>11</td>
</tr>
<tr>
<td>Part-time faculty in professional education but full-time in the institution</td>
<td>2</td>
</tr>
<tr>
<td>Part-time faculty in professional education, not otherwise employed by the institution</td>
<td>18</td>
</tr>
<tr>
<td>Total faculty student teaching supervisors</td>
<td>30</td>
</tr>
<tr>
<td>Student teacher/faculty ratio</td>
<td>5.6</td>
</tr>
<tr>
<td>The total number of weeks of supervised student teaching required</td>
<td>20</td>
</tr>
<tr>
<td>Average total number of hours required</td>
<td>700</td>
</tr>
</tbody>
</table>

*Student teaching varies by program with most interns spending 20 weeks in the school.

Individual Assessments completed by 10 or more students

<table>
<thead>
<tr>
<th>Type of Assessment</th>
<th>Frostburg State University</th>
<th>Statewide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number Taking Assessment</td>
<td>Number Passing Assessment</td>
</tr>
<tr>
<td></td>
<td>Number Taking Assessment</td>
<td>Number Passing Assessment</td>
</tr>
<tr>
<td>Professional Knowledge</td>
<td>ELEM ED CONTENT AREA EXERCISES</td>
<td>78</td>
</tr>
<tr>
<td>Academic Content Areas</td>
<td>EARLY CHILDHOOD: CONTENT KNOWLEDGE</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>HEALTH ED (2012-2013):</td>
<td>13</td>
</tr>
</tbody>
</table>

Summary Institutional-level Pass-rate Data:

Regular Teacher Preparation Program
Academic Year: 2013-2014
Number of Program Completers: 129

<table>
<thead>
<tr>
<th>Type of Assessment</th>
<th>Number Taking Assessment</th>
<th>Number Passing Assessment</th>
<th>Institutional Pass Rate</th>
<th>Statewide Pass Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary Totals and Pass Rates</td>
<td>119</td>
<td>117</td>
<td>9%</td>
<td>98%</td>
</tr>
</tbody>
</table>

See College of Education website for detailed report.

Notes:
1. The number of program completers found, matched and used in the passing rate calculation will not equal the sum of the column labeled “Number Taking Assessment” since a completer can take more than one assessment.
2. Institutions and/or States did not require the assessments within an aggregate where data cells are blank.
3. Number of completers who took one or more tests in a category and within their area of specialization.
4. Number who passed all tests they took in a category and within their area of specialization.
5. Summary Totals and Pass Rate: Number of completers who successfully completed one or more tests across all categories used by the state for licensure and the total pass rate.
Educational Professions

Teacher Education Programs

The Educational Professions Department offers an Early Childhood/Elementary major leading to eligibility for certification in PreK through grade 6, an Elementary Education major for certification in grades 1-6, and Elementary Education/Middle School certification in grades 1-9.

The Educational Professions Department also offers approved teacher education programs leading to eligibility for certification in Secondary Education (biology, chemistry, English, world languages, earth science, mathematics, physics, social studies), for grades 7-12 as well as middle school depending on subject area, and P-12 Education (art, music, health and physical education) for grades pre-kindergarten-12.

Requirements for these majors and programs are listed in the catalog under Early Childhood/Elementary Education, Elementary Education, Elementary/Middle School Dual Certification, P-12 Programs, Secondary Teacher Education, and departments offering the areas of content specialization.

The teacher education programs are committed to preparing professionals who are able to provide quality instruction, service, and leadership in a global community. The conceptual framework upon which each program rests focuses on the knowledge, skills and dispositions needed to develop powerful learning communities. The university, the public schools, parents and other community members link together using their hands, heads and hearts to prepare the finest pre-service teacher candidates. Educational Professions’ graduates are expected to be dedicated professionals, instructional leaders, continuous assessors, educational advocates, collaborative bridge-builders and reflective decision-makers.

Eligibility for Teacher Certification in Maryland

For eligibility for certification in the Early Childhood/Elementary program, Elementary program or Elementary/Middle, candidates must complete the approved program requirements as listed, university graduation requirements and Praxis testing requirements. Passing Praxis II, demonstrating the knowledge and skills of a specialized content area at the Maryland State Department of Education prescribed score, is required to gain teacher certification. Therefore, candidates must take Praxis II to become program completers and to graduate in an approved teacher education program. Completion of P-12 teacher education programs and the secondary professional sequence also requires taking Praxis II.

Candidates may apply for a certificate of eligibility directly to the Maryland State Department of Education or the personnel office of a county offering employment.

Eligibility for Teacher Certification in Other States

If candidates wish to gain a teaching license in a state other than Maryland, candidates need to check the certification requirements in the state(s) for the program in which they wish to teach, including the passing standard for Praxis in that state. Having a Maryland certificate of eligibility may prove helpful in the out-of-state certification effort.

Approved Program

Since NCATE (National Council for Accreditation of Teacher Education) and the Maryland State Department of Education have approved FSU’s teacher education programs, the Department of Educational Professions authorizes the Registrar’s Office to affix an approved program stamp on your official transcript upon satisfactory completion of all requirements.

Special Admission Criteria

In addition to the requirements set forth in the summaries of requirements for majors in Early Childhood/Elementary, Elementary, and Elementary/Middle, the Professional Education Sequences for Secondary Programs, and P-12 Programs (found in separate sections of this catalog), applicants must meet the following phase admission requirements in order to be accepted into and complete an education program. Application deadlines for Phase I, Phase II and Phase III for all candidates, including transfers, are established in October for spring semester and in May for fall semester by the Office of Unit Assessment.

Accreditation

Teacher Education Programs are accredited by the State of Maryland under the Redesign for Teacher Education and by the National Council for Accreditation of Teacher Education. Further, the education programs are recognized by 14 professional content area associations which offer national recognition for being compliant with national standards. The University will continue to update education programs and discipline requirements in the major or specialization to meet national and state standards and directives, making substitutions when required. Check with the Department of Educational Professions for current information.
Phase I Admission Requirements

1. Completion of at least 45 credit hours.
2. Cumulative GPA of at least 2.5 (including all grades from transfer institutions).
3. Passing scores on PRAXIS CORE as established by the state of Maryland or SAT composite score of 1100 on math and critical reading or math and verbal; or ACT composite score of 24.
4. Grade of C or better (or P) in all required Professional Education Sequence courses, including transfer equivalents, designated by program.
5. Grade of C or above in ENGL 101/111 or equivalent.
7. Twenty (20) documented hours of working with diverse populations.*
8. Declaration of a major.
9. Negative result on current TB test.
10. Completion of Consent and Release form.**
11. Fingerprinting as a background check is required. For more information, contact the Office of Clinical and Field Experiences in Framptom 215.
12. Acceptable rating on professional dispositions evaluation.

Additional Phase I Requirements for Early Childhood/Elementary, Elementary and Elementary/Middle (P-9) Education Majors
1. Grade of C or above in MATH 206.
2. Declaration of specialization.

Phase II Admission Requirements

1. Completion of at least 60 credit hours (Junior standing).
2. Cumulative FSU GPA of a least 2.5.
3. Cumulative GPA of at least 2.5 in the Professional Education Sequence, designated by program.
4. Grade of C or better (or P) in all required Professional Education Sequence courses, including transfer equivalents, designated by program.
5. Grade of C or better in ENGL 308 or equivalent.
7. Seventy-five percent or 18 credits of specialization completed (P-9 majors only).
8. Grade of C or better in MATH 207 or transfer equivalent (P-9 majors only).
9. Acceptable rating on professional dispositions evaluation.

Admission Requirements for Professional Development Schools (P-9 only)
1. Successful completion of EDUC 307 (field work).
2. Cumulative FSU GPA of at least 2.5.
3. GPA of at least 2.5 in Block I courses.
4. Grade of C or better (or P) in all required Professional Education Sequence courses, including transfer equivalents, designated by program.
5. Successful completion of an entrance interview into a PDS.
6. Acceptable rating on professional dispositions evaluation.

Phase III Admission Requirements

1. Completion of at least 90 credit hours (senior standing).
2. Cumulative FSU GPA of at least 2.60.
3. Cumulative GPA of at least 2.75 in the Professional Education Sequence, designated by program.
4. GPA of at least 2.75 in content major or area of specialization.
5. Grade of C or better (or P) in all required Professional Education Sequence courses, including transfer equivalents, designated by program.
6. Successful completion of Phase II field work.
7. Negative result on current TB test.
8. Recommendation of advisor and approval of program coordinator.
9. Verification of completion or registration for PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education.
10. Acceptable rating on professional dispositions evaluation.

Additional Phase III Admission Requirements
1. Grade of C or better in MUSC 350 and PHEC 309 (P-9 majors only).
2. Passing score on Early Childhood Comprehensive Exam (EC/Elem only).
Program Exit Requirements

1. Successful presentation of a portfolio that meets institutional standards.
2. Successful completion of Phase III field work and seminar.

Summary of Requirements for Major in Early Childhood/Elementary Education

A dual certification program

Major

<table>
<thead>
<tr>
<th>Course</th>
<th>MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Education:</td>
<td>72</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>57-61</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>129-133</td>
</tr>
</tbody>
</table>

1. Completion of GEP: (41 hours)
   - List of recommended courses available in the Department of Educational Professions
     a. Core Skills (9) including MATH 109/110 (3) or MATH 119 (3)
     b. Modes of Inquiry (29-32) including two 4-credit natural science courses

2. Additional Required Courses for Early Childhood/Elementary Majors:
   a. MATH 206 Problem Solving for Elementary Teachers I (3)
   b. MATH 207 Problem Solving for Elementary Teachers II (3)
   c. 4-credit laboratory science elective (4)
   d. MUSC 350 Music and Creative Interaction for the Elementary Classroom (3)
   e. PHEC 309 Health and Physical Education for the Elementary Classroom (3)

3. Specialization (24 hours; 2 courses satisfy GEP)
   a. ART 110 Visual Imagery (3 hours satisfy GEP Group A)
   b. ECED 150 Early Childhood Foundations (3 hours taken Pre-Phase )
   c. ECED 293 Early Childhood Learning Environment, Materials and Methods (3 hours taken Pre-Phase after ECED 150)
   d. ECED 431 Early Childhood Education Curriculum Development, Implementation and Assessment (3 hours taken during Phase II, Block II)
   e. ECED 443 Adults in the Child’s World (3 hours taken during Phase II, Block I)
   f. EDUC 390 Field Experience in Early Childhood Education (3 hours taken Phase I)
   g. PSYC 150/151 General Psychology (3 hours satisfy GEP Group D)
   h. PSYC 210 Child Development or PSYC 208 Introduction to Lifespan Development (3)

4. Professional Education Sequence (57 hours) See admission requirements for each phase.

PRE-PHASE

EDUC 100 Career Analysis in Education (1)
EDUC 201 Students, Teachers and Learning Environments (3 hours taken Pre-Phase or concurrent with Phase I)
EDUC 202 Foundations of Learning and Instruction (3 hours taken Pre-Phase or concurrent with Phase I)

Course required concurrent with Phase I for Early Childhood/Elementary Candidates enrolled at University System of Maryland – Hagerstown

EDUC 335 Teaching Frameworks (2) (which replaces EDUC 100 and EDUC 200)
PHASE I (8 hours and 3 hours for Early Childhood Specialization Course)
- EDUC 200 Phase I Teaching and Professional Assessment Laboratory (1)
- EDUC 346 Educational Technology Laboratory I (1)
- EDUC 376 Special and Multicultural Education (3)
- REED 323 Process and Acquisition of Reading (3)

PHASE II, Block 1 (14 hours and 3 hours for Early Childhood Specialization Course)
- EDUC 447 Educational Technology Laboratory II (1)
- ELED 307 Block 1 Clinical and Professional Assessment Component (1)
- ELED 471 Mathematics Curriculum, Methods and Assessment (3)
- ELED 474 Science Curriculum, Methods and Assessment (3)
- ELED 475 Social Studies Curriculum, Methods and Assessment (3)
- REED 473 Reading Instruction (3)

PHASE II, Block 2 (13 hours and 3 hours for Early Childhood Specialization Course)
- EDUC 448 Educational Technology Laboratory III (1)
- ELED 494 Teaching Internship I: P-9 (6)
- REED 420 Assessment for Reading Instruction (3)
- REED 425 Materials and Motivations for Reading (3)

PHASE III (15 hours)
- EDUC 422 Leadership Seminar P-9 (3)
- ELED 495 Teaching Internship II: P-9 (12) (Capstone)

5. Other Internship Requirements
   a. Students must complete any school district requirements (application, fingerprinting, background check, drug testing, etc.) to qualify for an internship placement.

6. Other Graduation/Program Exit Requirements
   a. Successful presentation of a portfolio that meets institutional standards.
   b. Completion of the PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).
   c. Successful completion of required field experiences in early childhood (PreK-K), primary (1-3) and intermediate (4-6) grades.
Elementary Education

Major

Concentrations in

- Integrated Arts
- Language and Literacy
- Social Science and Civics
- STEM

Professors:
Ornstein, Rotruck (Chair),
Wakefield, Stephenson

Associate Professors:
Ladores, Milleson, Welsch

Assistant Professors:
Boayue, McGee, Nichols, Rankin, Scarlet, Tobery-Nystrom

- The requirements in numbers 1-3 list specific hours required in other departments. These requirements include but go beyond the University GEP. A list of recommended GEP courses is available in the Department of Educational Professions.

Summary of Requirements for Major in Elementary Education

1. Completion of GEP (38 - 41 hours)
a. Core Skills (9) including MATH 109/110 (3) or MATH 119 (3)
b. Modes of Inquiry (29-32) including two 4-credit natural science courses.

2. Additional Required Courses for Elementary Majors (16 hours)
a. MATH 206 Problem solving for Elementary Teachers I (3)
b. MATH 207 Problem solving for Elementary Teachers II (3)
c. 4 credit laboratory science elective (4)
d. MUSC 350 Music and Creative Interaction for the Elementary Classroom Teacher (3)
e. PHEC 309 Health and Physical Education for the Elementary Classroom Teacher (3)

3. Concentrations (24 hours, at least 2 courses count for GEP or Additional Required Courses)

Summary of Requirements for Integrated Arts Concentration (24 hours)

a. Required courses (17 hours)
i. ART 110 Visual Imagery (GEP Group A)
ii. ART 104 Two-Dimensional Design
   or ART 105 Three-Dimensional Design
iii. MUSC 100 Introduction to Music Theory
    or MUSC 110 Music Fundamentals (GEP Group A)
iv. DANC 110 Dance Appreciation (GEP Group A)
    or THEA 110 Introduction to Acting
v. MUSC 350 Music and Creative Interaction for the Elementary Classroom Teacher
vi. EDUC 333 Integrated Arts in the Elementary Classroom

b. Electives (7 hours) May use a course only once

GROUP I Music
MUSC 111 Class Guitar I
MUSC 319 University Chorale
MUSC 329 Marching Band
MUSC 330 Wind Ensemble
MUSC 331 Brass Ensemble
MUSC 335 String Ensemble
MUSC 337 Woodwind Ensemble
MUSC 339 Percussion Ensemble

GROUP II Visual Arts
ART 104 Two Dimensional Design
ART 105 Three Dimensional Design
ART 207 Graphic Design
ART 212 Drawing
ART 216 Illustration
ART 221 Painting
ART 232 Printmaking
ART 235 Photography
ART 336 Digital Imaging for the Fine Arts
ART 240 Sculpture

GROUP III Dance
DANC 131 Ballet I
DANC 154 Jazz I
DANC 165 Tap I
DANC 305 Improvisation
DANC 429 Special Topics in Dance

GROUP IV Drama
THEA 104 Theatre
THEA 107 Introduction to Theatrical Vision (GEP Group A)
THEA 204 Stagecraft
THEA 210 Voice and Movement
THEA 315 Creative Dramatics

GROUP V Mass Communication
MCOM 100 Radio Workshop
MCOM 101 Television Workshop
MCOM 213 Audio Production
MCOM 250 Announcing and Performing
Summary of Requirements for Language and Literacy Concentration
(24 hours)

a. Required courses (6 hours)
   i. ENGL 150 Introduction to Literature (GEP Group B)
   ii. ENGL 308/309/310/311 Advanced Composition (GEP Core Skills)
   iii. ENGL 221 Introduction to Literature/Intermediate Composition (GEP Group B)

b. Required Advanced Courses (9 hours)
   i. REED 440 Children's Literature
      or ENGL 276 Adolescent Literature
   ii. EDUC 372 Teaching Writing in the Classroom
   iii. ELED 472 Language Arts Methods (Admission to Phase II)

c. Supporting Courses (3 hours)
   i. ENGL 418 Second Language Acquisition: Theory and Application
   ii. SPAN 101 Basic Elements of Spanish I
   iii. FREN 101 Basic Elements of French I
   iv. MDFL 111 Intercultural Understanding (GEP Group F)

d. Electives (6 hours) Select from two different areas; May use a course only once

GROUP I Reading
ENGL 231 African American Literature
ENGL 260 British Literature: Beowulf to Present
ENGL 261 American Literature: Colonial to Present
ENGL 270 European and Neo-European Literature
ENGL 271 Asian and African Literature
ENGL 280 Mythology and Literature
ENGL 290 Topics in Language and Literature
ENGL 450 Women and Literature
ENGL 508 Modern and Post Modern American Fiction
EDUC 490 Special Topics in Education- Festival of Children's Literature (must be taken 3 times)
ENGL 276 Adolescent Literature
REED 440 Children's Literature

GROUP II Writing
ENGL 215 Grammar for Writing
ENGL 300 Critical Writing about Literature
ENGL 334 Creative Writing: Fiction
ENGL 335 Creative Writing: Poetry
ENGL 336 Journalistic Writing
ENGL 430 Composing Process

GROUP III Listening, Speaking, Viewing and Visually Representing
CMST 102 Introduction to Human Communication
CMST 122 Introduction to Public Speaking
CMST 215 Small Group Communication
CMST 345 Conflict Management
CMST 350 Intercultural Communication
ENGL 418 Second Language Acquisition: Theory and Application

GROUP IV Teaching English Language Learners
SPAN 101 Basic Elements of Spanish I
SPAN 211 Spanish Grammar, Composition & Conversation
FREN 101 Basic Elements of French I
FREN 102 Basic Elements of French II
MDFL 111 Intercultural Understanding (GEP Group F)
MDFL 190 Selected Topics in Foreign Language and Literature
MDFL 290 Selected Topics in Foreign Language and Literature

Summary of Requirements for Social Science and Civics Concentration (24 hours)

a. Required Courses in Social Science (3 hours)
   i. HIST 103 History of United States, 1492 to 1876
   ii. HIST 104 History of United States, 1876 to present

b. Additional required courses in Social Science (18 hours)
   i. ECON 200 Basic Economics (GEP Group D)
      or ECON 201/211 Principles of Economics (Macro) (GEP Group D)
   ii. GEOG 104 Human Geography (GEP Group D or F)
   iii. HIST 100 Contemporary World History (GEP Group B)
   iv. POSC 100/111 Introduction to American Politics (GEP Group D)
      or POSC 113/114 Introduction to World Politics (GEP Group D)
      or POSC 131 Introduction to Comparative Politics (GEP Group D)
   v. PSYC 150/151 General Psychology (GEP Group D)
      or PSYC 100/111 Introduction to Sociology
   vi. HIST 113 World History, Earliest Times to 1500
      or HIST 114 World History 1500 to 1900

   vii. SOCIO 200 Social Problems (GEP Group D)
      or SOCIO 210 Introduction to Sociology

   c. Advanced Electives (3 hours)

GROUP I History
HIST 306 Medieval Europe
HIST 310 Ancient Greece and Rome
HIST 418 Native Peoples of the Americas
HIST 445 History of Maryland
HIST 461 History of Colonial America
HIST 462 Revolutionary America, 1763-1789
HIST 464 History of Civil War and Reconstruction

GROUP II Geography
GEOG 301 Geography of North America
GEOG 302 Geography of Maryland

GROUP III Sociology
SOCIO 305 Racial and Cultural Minorities (GEP Group F)
SOCIO 364 Sociology of Marriage and Family

GROUP IV Political Science
POSC 321 American State and Local Politics
Summary of Requirements for STEM Concentration  
(24 hours)

a. Required courses  (7 hours)
   i. BIOL 149 Biology I (GEP Group C)
   ii. MATH 119 College Algebra (GEP Core Skills)

b. Additional required courses in Science  
   (4 hours)
   i. CHEM 201 Chemistry I (GEP Group C)
   ii. PHYS 215 General Physics I (GEP Group C)

c. Additional required courses in Mathematics  
   (6 hours)
   i. MATH 109 Elements of Applied Probability and Statistics
   ii. MATH 200 An Introduction to Discrete Mathematics
   iii. MATH 340 Fundamental Concepts of Geometry

d. Required courses in STEM Education  (4 hours)
   i. EDUC 340 STEM Education Through A Trans-disciplinary Approach (Phase I admission)
   ii. EDUC 440 STEM Laboratory (Phase III admission)

e. Electives in Problem Solving  (3 hours)

GROUP I Technical
   ENES 100 Introduction to Engineering Design
   CHEM 100/113 Chemistry and Society
   GEOG 205 Descriptive Meteorology
   GEOG 208 Earth Systems History
   GEOG 325 Urban Geography: Metropolitan Systems
   GEOG 335 Oceanography
   GEOG 360 Food Systems

GROUP II Environmental
   CMST 365 Environmental Communication
   PHIL 315 Philosophy and the Environment
   SOCI 345 Sociology of the Environment
   SUST 155 Introduction to Sustainability Studies

GROUP III Global Perspectives
   CMST 345 Conflict Management
   CMST 350 Intercultural Communication (GEP Group C)
   HTHL 125 Health and Culture (GEP Group F)
   MDFL 111 Intercultural Understanding (GEP Group C)
   SOCI 200 Social Problems

4. Professional Education Sequence  (57 hours) See admission requirements for each Phase

PRE PHASE
   EDUC 100 Career Analysis in Education (1)
   EDUC 201 Students, Teachers, and Learning Environments (3; Pre-Phase or concurrent with Phase I)
   EDUC 202 Foundations of Learning and Instruction (3; Pre-Phase or concurrent with Phase I)

PHASE I  (8 hours; completed over 1 or 2 semesters)
   EDUC 200 Phase I Teaching and Professional Assessment Laboratory (1)
   EDUC 346 Educational Technology Laboratory I (1)
   EDUC 376 Special and Multicultural Education (3)
   REED 323 Process and Acquisition of Reading (3)

PHASE II, Block I  
(14 hours; completed over 1 semester)
   EDUC 447 Educational Technology Laboratory II (1)
   ELED 307 Block I Clinical and Professional Assessment Component (1)
   ELED 471 Mathematics Curriculum, Methods and Assessment (3)
   ELED 474 Science Curriculum, Methods and Assessment (3)
   ELED 475 Social Studies Curriculum, Methods and Assessment (3)
   REED 473 Reading Instruction (3)

PHASE II, Block II  
(13 hours; completed over 1 semester)
   EDUC 448 Educational Technology Laboratory III (1)
   REED 420 Assessment for Reading Instruction (3)
   REED 425 Materials and Motivations for Reading (3)
   ELED 494 Teaching Internship I: P-9 (6)

PHASE III  (15 hours; completed over 1 semester)
   EDUC 422 Leadership Seminar P-9 (3)
   ELED 495 Teaching Internship II: P-9 (12) (Capstone)

5. Other Internship Requirements
   a. Students must complete any school district requirements (application, fingerprinting, background check, drug testing, etc.) in order to qualify for an internship placement

6. Other Graduation/Program Exit Requirements
   a. Successful presentation of a portfolio that meets institutional standards.
   b. Completion of the Praxis II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).
   c. Successful completion of required field experiences in primary (1-3) and intermediate (4-6) grades.
Elementary/Middle School Dual Certification

Professors:
Ornstein, Rotruck (Chair),
Wakefield, Stephenson

Associate Professors:
Ladores, Milleson, Welsch

Assistant Professors:
Boayue, McGee, Nichols, Rankin,
Scarlish, Tobery-Nystrom

- The requirements in numbers 1-3 list specific hours required in other departments. These requirements include but go beyond the University GEP. A list of recommended GEP courses is available in the Department of Educational Professions.
- You must complete an approved 24-hour specialization. Six of those hours will be in middle grades pedagogy (EDUC 316 and EDUC 445).
- You must complete application for each phase of the program.
- The requirements for entry into phases are described in the Educational Professions section of this catalog.

Summary of Requirements for Major in Elementary/Middle School Dual Certification

Major

| Hours Required in Education: | 63 |
| Hours Required in Other Departments: | 62-69 |
| Total Hours Required: | 125-132 |

1. Completion of GEP: (41 hours)
   - List of recommended courses available in Department of Educational Professions
   a. Core Skills (9) including MATH 109/110 (3) or MATH 119 (3)
   b. Modes of Inquiry (29-32) including two 4-credit natural science courses

2. Additional Required Courses for Elementary/Middle Majors:
   a. MATH 206 Problem Solving for Elementary Teachers I (3)
   b. MATH 207 Problem Solving for Elementary Teachers II (3)
   c. 4 credit laboratory science elective (4)
   d. MUSC 350 Music and Creative Interaction for the Elementary Classroom Teacher (3)
   e. PHEC 309 Health and Physical Education for the Elementary Classroom Teacher (3)

3. Specialization: (24 hours; 2 courses satisfy GEP)
   - A 24 hour specialization must be completed in one of the following areas: Mathematics, General Science, Social Studies, English/Language Arts or an approved individualized specialization. Eighteen hours of the specialization must be content courses (19 for science majors). Requirements for each specialization, in addition to the courses listed below, are available in the Department of Educational Professions.
   a. EDUC 316 Early Adolescent Learning and Literacy (3)
   b. EDUC 445 Strategic Reading and Writing in the Middle Grades (3; Phase II, Block II)

4. Professional Education Sequence (57 hours)
   - See admission requirements for each phase.

PRE-PHASE
EDUC 100 Career Analysis in Education (1)
EDUC 201 Students, Teachers and Learning Environments (3; Pre-Phase or concurrent with Phase I)
EDUC 202 Foundations of Learning and Instruction (3; Pre-Phase or concurrent with Phase I)

PHASE I (8 hours and 3 hours for Middle Grades Specialization Course)
EDUC 200 Phase I Teaching and Professional Assessment Laboratory (1)
EDUC 346 Educational Technology Laboratory I (1)
EDUC 376 Special and Multicultural Education (3)
REED 323 Process and Acquisition of Reading (3)

PHASE II, Block 1 (14 hours)
EDUC 447 Educational Technology Laboratory II (1)
ELED 307 Block 1 Clinical and Professional Assessment Component (1)
ELED 471 Mathematics Curriculum, Methods and Assessment (3)
ELED 474 Science Curriculum, Methods and Assessment (3)
ELED 475 Social Studies Curriculum, Methods and Assessment (3)
REED 473 Reading Instruction (3)

PHASE II, Block 2 (13 hours and 3 hours for Middle Grades Specialization Course)
EDUC 448 Educational Technology Laboratory III (1)
ELED 494 Teaching Internship I: P-9 (6)
REED 420 Assessment for Reading Instruction (3)
REED 425 Materials and Motivations for Reading (3)

PHASE III (15 hours, completed over 1 semester)
EDUC 422 Leadership Seminar: P-9 (3)
ELED 495 Teaching Internship II: P-9 (12) (Capstone)
5. Other Internship Requirements
   a. Students wishing to have an internship placement in a middle school must have successfully completed EDUC 316.
   b. Students must complete any school district requirements (application, fingerprinting, background check, drug testing, etc.) to qualify for an internship placement.

6. Other Graduation/Program Exit Requirements
   a. Successful presentation of a portfolio that meets institutional standards.
   b. Completion of the PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).
   c. Successful completion of required field experiences in primary (1-3), intermediate (4-5) and middle grades (6-8).
### Professional Education Sequence for P-12 Programs

#### ART

<table>
<thead>
<tr>
<th>Phase</th>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>Pre-Phase I</td>
<td>EDUC 201</td>
<td>Students, Teachers, and Learning Environments</td>
</tr>
<tr>
<td>Phase I</td>
<td>EDUC 200</td>
<td>Phase I Teaching and Professional Assessment Laboratory</td>
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<tr>
<td></td>
<td>EDUC 202</td>
<td>Foundations of Learning &amp; Instruction</td>
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<tr>
<td></td>
<td>REED 317</td>
<td>Content Area Reading</td>
</tr>
<tr>
<td>Phase II</td>
<td>EDUC 300</td>
<td>Phase II Teaching and Professional Assessment Laboratory</td>
</tr>
<tr>
<td></td>
<td>EDUC 392</td>
<td>K-12 Field Experience</td>
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<td></td>
<td>EDUC 450</td>
<td>Art Education Methods for the Secondary Teacher</td>
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<td>EDUC 451</td>
<td>Art Education Methods for the Elementary Teacher</td>
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<td>REED 418</td>
<td>Reading and Writing Connections</td>
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<td>SPED 451</td>
<td>Adapting Instruction in Diverse Classrooms</td>
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<tr>
<td>Phase III</td>
<td>EDUC 406</td>
<td>Leadership Seminar</td>
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<td>EDUC 497</td>
<td>Teaching Internship, K-12 Program</td>
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**Other Graduation/Program Exit Requirements**

a. Successful presentation of a portfolio that meets institutional, Maryland state, and national standards.

b. Verification of taking PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).

#### MUSIC

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<th>Phase</th>
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<tr>
<td>Pre-Phase I</td>
<td>MUSC 125</td>
<td>Introduction to Music Education</td>
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<td>Phase I</td>
<td>MUSC 252</td>
<td>Early Music Experience</td>
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<td>REED 317</td>
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<td>EDUC 300</td>
<td>Phase II Teaching and Professional Assessment Laboratory</td>
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<td></td>
<td>EDUC 354</td>
<td>General Music Methods in Elementary School</td>
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<td>EDUC 355</td>
<td>General Music Methods in Secondary School</td>
</tr>
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<td></td>
<td>EDUC 392</td>
<td>K-12 Field Experience</td>
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<td></td>
<td>MUSC 352</td>
<td>Choral Music Methods</td>
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<td></td>
<td>or MUSC 353</td>
<td>Instrumental Music Methods</td>
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<td>REED 418</td>
<td>Reading and Writing Connections</td>
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<td>SPED 451</td>
<td>Adapting Instruction in Diverse Classrooms</td>
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<td>EDUC 406</td>
<td>Leadership Seminar</td>
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<td>EDUC 497</td>
<td>Teaching Internship, K-12 Program</td>
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</table>

**Other Graduation/Program Exit Requirements**

a. Successful presentation of a portfolio that meets institutional, Maryland state, and national standards.

b. Verification of taking PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).

#### HEALTH & PHYSICAL EDUCATION

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<td>HPED 310</td>
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<td>HPED 416</td>
<td>Curriculum Design in Health and Physical Education</td>
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<tr>
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<td>REED 317</td>
<td>Content Area Reading</td>
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<td>EDUC 392</td>
<td>K-12 Field Experience</td>
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<td>HPED 402</td>
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<td>HPED 404</td>
<td>Health Instruction</td>
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<td>HPED 408</td>
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<td>Secondary Methods of Physical Education</td>
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<tr>
<td></td>
<td>REED 418</td>
<td>Reading and Writing Connections</td>
</tr>
</tbody>
</table>
Secondary Teacher Education

Coordinator: Dr. Todd Anthony Rosa, Assistant Professor
Associate Professors: Milleson, Santamaria-Makang, Tobery-Nystrom
Assistant Professor: Nichols, Scarloss

- You must complete an application for each phase of the program.
- The requirements for entry into phases are listed in the Educational Professions section of this catalog.
- Secondary Teacher Education is not a primary major. To meet Maryland State certification requirements, Secondary Teacher Education majors must double major in one of the following CLAS/COB disciplines: biology, chemistry, earth science, economics, English, foreign languages & literature, geography, history, mathematics, physics, political science, psychology, social science or sociology. See the Secondary Teacher Education Program coordinator for details.

1. Professional Teacher Education Courses Required Prior to or Concurrent With Phase I (4 hours)
   - EDUC 100 Career Analysis in Education (1 cr.)
   - EDUC 202 Foundations of Learning and Instruction

2. Professional Teacher Education Sequence (29 hours)
   Phase I (9 hours)
   - EDUC 310 Diversity and Social Justice in Education (may be taken pre-phase or with phase I)
   - REED 317 Content Area Reading
   - SCED 410 Secondary Methods & Curriculum

   Phase II (8 hours)
   - EDUC 391 Teaching Internship I: Secondary Education
   - REED 418 Reading and Writing Connections
   - SCED 430 Pedagogical Content Knowledge in the Secondary Disciplines

   Phase III (12 hours)
   - EDUC 403 Assessment and Management of Learning
   - SPED 451 Adapting Instruction in Diverse Classrooms
   - SCED 496 Teaching Internship II: Secondary Education (6 cr.)

MAJOR

Hours Required in Education: 33
Total Hours Required: 33

Other Graduation/Program Exit Requirements
a. Successful presentation of a portfolio that meets institutional, Maryland state and national standards
b. Verification of taking PRAXIS II Health Education and Physical Education: Content and Design required by the Maryland State Department of Education before Phase III

The courses of study to be followed in academic content areas are established by individual departments. You may select the secondary teacher education major’s certification option in addition to completing the major in the following fields:

- biology
- chemistry
- foreign languages & literature (certification in concentration in Spanish)
- earth science
- English
- mathematics
- physics
- social science

If you are majoring in economics, geography, history, political science, psychology, social science, or sociology, you are strongly advised to meet Maryland State certification requirements in social studies or have a second major in which you can be assigned for student teaching. See the Secondary Program Coordinator for details.
Major

Coordinator:
Todd A. Rosa, Assistant Professor,
Department of Educational Professions

Department Contacts:
David Kirsizis,
Chair, Department of Economics;
Fritz Kessler,
Chair, Department of Geography;
Sally Boniece,
Chair, Department of History;
Stephen Twing,
Chair, Department of Political Science;
J. Flinn,
Chair, Department of Psychology;
Robert Moore,
Chair, Department of Sociology

A major in Social Science requires a minimum of 66 hours; you cannot minor in Social Science.

Only courses in which you earn a grade of C or better will count toward satisfaction of major requirements in Social Science.

Summary of Requirements for Major in Social Science

Major

1. Introductory Level Courses:  (36 hours)

Economics (6 hours)
ECON 201 Principles of Economics (Macro) (GEP Group D)
or ECON 211 Honors: Principles of Macroeconomics (GEP Group D)
ECON 202 Principles of Economics (Micro)
or ECON 212 Honors: Principles of Microeconomics

Geography (6 hours)
GEOG 104 Human Geography (GEP Group D or F)
or GEOG 114 Honors Human Geography (GEP Group D or F)
or GEOG 110 World Regional Geography: Cultural Diversity (GEP Group D or F)
GEOG 301 Geography of North America
or GEOG 302 Geography of Maryland

History (6 hours)
Select one of the following sequences:
HIST 103, 104 History of the United States
or HIST 113, 114 World History

Political Science (6 hours)
POSC 110 Introduction to American Politics (GEP Group D)
or POSC 112 Honors Introduction to American Politics (GEP Group D)
POSC 113 Introduction to World Politics (GEP Group D)
or POSC 114 Honors Introduction to World Politics (GEP Group D)
or POSC 131 Introduction to Comparative Politics (GEP Group D or F)

Psychology (6 hours)
PSYC 150 General Psychology (GEP Group D)
or PSYC 151 Honors General Psychology (GEP Group D)
and one from among:
PSYC 210 Child Development
PSYC 212 Adolescence and Adulthood
PSYC 220 Psychology of Women (GEP Group F)

Sociology (6 hours)
SOCI 100 Introduction to Sociology (GEP Group D)
or SOCI 111 Honors Introduction to Sociology (GEP Group D)
and one from among:
SOCI 200 Social Problems
SOCI 224 Cultural Anthropology (GEP Group F)
SOCI 305 Racial and Cultural Minorities (GEP Group F)
SOCI 306 Sociology of African Americans
(NOTE: Students interested in pursuing secondary social studies certification at either the undergraduate or master’s level should choose SOCI 224, SOCI 305, or SOCI 306.)

2. Tracks:  (18 hours)
Select 2 of the following departmental patterns.

Economics (9 hours)
Select from:
ECON 300 History of Economic Thought
ECON 303 American Economic History

ECON 306 Money and Banking
ECON 307 Government, Business and Public Policy
ECON 309 Comparative Economic Systems
ECON 351 Intermediate Macroeconomics
ECON 352 Intermediate Microeconomics
ECON 400 International Trade
ECON 401 International Finance
ECON 405 Economics of Developing Countries
ECON 407 Business Cycles and Forecasting
ECON 408 Urban and Regional Economics
ECON 490 Special Topics in Economics

Geography (9 hours)
Select one course from each group:
a. GEOG 300 Economic Geography or GEOG 407 Political Geography or GEOG 410 Locational Analysis or GEOG 425 Geography of Transportation or GEOG 427 Geography of Languages and Religion (GEP Group F)
b. GEOG 320 Geography of Latin America or GEOG 401 Geography of Europe or GEOG 402 Geography of Northern Eurasia or GEOG 403 Geography of Sub-Saharan Africa
c. GEOG 324 Urban Geography: Internal City Patterns or GEOG 325 Urban Geography: Metropolitan Systems

History (9 hours)
Select from 300- or 400-level history courses.

Political Science (9 hours)
Select one course from each of the three groups:
a. POSC 352 Interest Groups
POSC 361 Public Opinion and Political Behavior
POSC 362 Political Parties and Elections
POSC 363 Media and Politics
POSC 365 Women and Politics
POSC 462 Personality and Politics
b. POSC 330 Politics of Africa
POSC 331 Politics of Latin America
POSC 332 Politics of Middle East
POSC 333 Politics of Europe
POSC 341 International Organization
POSC 342 Foreign Policy of the United States
POSC 431 Russian Politics
c. POSC 321 American State and Local Politics
POSC 323 Public Administration
POSC 324 Criminal Justice Systems
POSC 421 American Legislative Politics
POSC 422 American Constitutional Law I
POSC 423 American Constitutional Law II
POSC 427 The American Presidency

Psychology (9-10 hours)
Select one course from three of the four groups:
a. PSYC 210 Child Development
or PSYC 212 Adolescence and Adulthood
Selection may not duplicate introductory courses.
b. PSYC 213 Psychology of Adjustment
   or PSYC 301 Research Methods and Analysis II
   or PSYC 303 Psychology of Couples

c. PSYC 318 Social Psychology

d. PSYC 314 Theories of Personality
   or PSYC 317 Abnormal Psychology

Sociology (9 hours)
Select one course from each of the three groups if either SOCI 305 or SOCI 224 is taken to satisfy Part I of requirements. If neither SOCI 305 nor SOCI 224 was taken to satisfy Part I of major requirements, choose either SOCI 305 Racial and Cultural Minorities (GEP Group F) or SOCI 224 Cultural Anthropology (GEP Group F) and select two additional courses, one each from two of the following groups. In either case, selections may not duplicate choices made to meet other major requirements.

a. Social Institutions and Structures
   SOCI 305 Racial and Cultural Minorities (GEP Group F)
   SOCI 362 Sociology of Religion
   SOCI 364 Marriage and Family Relationships
   SOCI 366 Social Inequality
   SOCI 367 Sociology of Medicine
   SOCI 436 Social Aspects of Mass Communication

b. Social Behavior
   SOCI 203 Sociology of Deviant Behavior
   SOCI 306 Sociology of African Americans
   SOCI 332 Collective Behavior
   SOCI 334 Gender and Social Life
   SOCI 340 Criminology

SOC 442 Juvenile Delinquency
SOC 468 Sociology of Later Life

SOC 324 Cultural Anthropology (GEP Group F)
SOC 322 Social Demography
SOC 325 Community Analysis
SOC 326 Sociology of Rural Life
SOC 328 Sociology of Urban Life

3. Research Methods (3-4 hours)
Choose one of the following from a department selected as a track above:
ECON 450 Quantitative Economics
GEOG 380 Geographic Research Methods and Field Techniques
HIST 299 Writing and Research in History
POSC 250 Research Methods
PSYC 201 Research Methods and Analysis I
SOC 311 Basic Research Methods

4. Social Science Seminar (3 hours)
SOC 490 Topics in Social Science (Capstone)

5. Other required courses (6 hours)
CMST 102 Introduction to Human Communication*
COSC 100 Introduction to Computer Science* (Tech. Fluency)

*Note: you must receive a grade of C or better for this course to count toward major.

Summary of Requirements for Double Major in Secondary Teacher Education
If you wish to complete a Maryland State-approved program in teaching secondary social studies, you must:
• Complete the BA/BS in social science.
• Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
Athletic Training

Major

<table>
<thead>
<tr>
<th>Hours Required in Kinesiology:</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Other Departments:</td>
<td>18</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>93</td>
</tr>
</tbody>
</table>

Admission Requirements

To be considered for full admission into the Athletic Training Program (ATP), the student must meet each of the following criteria:

1. Completion of a minimum of 28 semester hours. Transfer students are required to have prerequisite course work approved by the ATP Program Director.
2. A minimum 3.0 overall GPA.
3. A minimum of a “B” grade in each of the following courses:
   a. BIOL 149 General Biology
   b. HEED 103 Foundations of Exercise & Sport Science
   c. HEED 206 Introduction to Athletic Training
4. Satisfactory completion of 50 observational hours in the FSU athletic training clinic. The student must make arrangements with the Program Director prior to starting observation.
5. A completed formal application for admission into the ATP, including an essay.
6. Two completed recommendation forms from non-Athletic Training faculty members.
7. Completion of a formal interview with the ATP selection committee.
8. Signed copy of the Technical Standards for admission into the Athletic Training Program.

In addition to the previous criteria, the student must have a physical examination and medical history form completed by the appropriate health care provider. The student must also submit a copy of the immunization records required of all incoming FSU students. All students must also receive Hepatitis B vaccination before they are accepted.

Application Review Process

1. Students who have met the above minimum requirements will be evaluated on the following scale:

<table>
<thead>
<tr>
<th>Overall GPA</th>
<th>40 percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite GPA</td>
<td>30 percent</td>
</tr>
<tr>
<td>Faculty Recommendations</td>
<td>20 percent</td>
</tr>
<tr>
<td>Interview</td>
<td>5 percent</td>
</tr>
<tr>
<td>Application/Essay</td>
<td>5 percent</td>
</tr>
</tbody>
</table>

2. The following scale will be used to evaluate the quality of the applicant.

   4.0-3.0 Student considered for full admission
   Below 3.0 Student may be considered for full admission

The total number of students that can be accepted into the program depends on the availability of clinical placements. Meeting the criteria listed in the section on the Application Review Process does not guarantee acceptance into the Athletic Training Program.

Maintaining Advanced Good Standing in Athletic Training Education Program

Once admitted, the Athletic Training student must maintain the following to remain fully admitted:

1. A minimum overall GPA of 3.0
2. A minimum grade of “B” in each of the required courses in the major
3. Current certifications in First Aid and CPR
4. Attendance at the annual OSHA bloodborne pathogens presentation

Students who fail to meet 1 and/or 2 have one academic year to correct the deficiency before being dismissed from the ATP. Violations of 3 and/or 4 will result in an immediate suspension of clinical experiences until the student is in compliance.
Summary of Requirements for Major in Athletic Training

Major

1. KINE Courses: (75 hours)
   - HEED 103 Foundations of Exercise & Sport Science
   - HEED 200 Nutrition
   - HEED 206 Introduction to Athletic Training
   - HEED 210 Athletic Taping and Bracing Techniques
   - HEED 222 Emergency Medical Techniques in Athletic Training
   - HEED 223 Clinical Experiences in Athletic Training I
   - HEED 318 Orthopedic Assessment I Upper Extremity
   - HEED 319 Orthopedic Assessment II Lower Extremity
   - HEED 320 Pharmacology and General Medical Conditions
   - HEED 322 Clinical Experiences in Athletic Training II
   - HEED 323 Clinical Experiences in Athletic Training III
   - HEED 340 Organization and Administration of Athletic Training
   - HEED 408 Therapeutic Modalities in Sports Medicine
   - HEED 413 Rehabilitation Techniques in Sports Medicine
   - HEED 414 Advanced Rehabilitation Techniques in Athletic Training
   - HEED 422 Clinical Experiences in Athletic Training IV (Capstone)
   - HEED 423 Clinical Experiences in Athletic Training V (Capstone)
   - HEED 450 Evidence-Based Practice in Athletic Training
   - HEED 480 Capstone I in Athletic Training
   - HEED 485 Capstone II in Athletic Training
   - PHEC 175 Foundations of Resistance Training
   - PHEC 303 Biomechanics for Exercise and Sport Science
   - PHEC 341 Psychology of Physical Activity
   - PHEC 401 Physiology of Exercise
   - PHEC 410 Advanced Strength Training
   - PHEC 411 Evaluation and Prescription in Fitness
   - PHEC 435 Lifespan Health and Fitness

2. Courses in Other Departments: (18 hours)
   - BIOL 149 General Biology (GEP Group C)
   - BIOL 321 Anatomy & Physiology I
   - BIOL 322 Anatomy & Physiology II
   - MATH 109 Elements of Applied Probability and Statistics (Core Skill 3)
   - PSYC 150 General Psychology (GEP Group D)

Coaching

Minor

Coordinator: Troy Strieby, Assistant Professor, Department of Kinesiology
Professor: R. Lewis
Assistant Professors: Strieby, Wright
- Field experience required in school program. Recommended during senior year.
- You cannot major in coaching.

Summary of Requirements for Minor in Coaching

Minor

All of the following: (16 hours)
   - HEED 305 Care and Prevention of Athletic Injuries
   - PHEC 175 Foundations of Resistance Training
   - PHEC 405 Psycho-Social Foundations of Sport
   - PHEC 412 Principles of Coaching
   - PHEC 420 Sports Law and Ethics
   - PHEC 481 Field Experience in Coaching

Two from among: (6 hours)
   - PHEC 360 Theory of Track & Field
   - PHEC 361 Theory of Football
   - PHEC 362 Theory of Baseball
   - PHEC 364 Theory of Basketball
   - PHEC 365 Theory of Volleyball
   - PHEC 366 Theory of Soccer
   - PHEC 369 Theory of Softball
Exercise & Sport Science

Major

Assistant Professors:
M. Kentrus, Wright, Zaloga

Lecturer:
Brakeall

- You must complete a 9-credit internship during your senior year.
- Upon completion of degree requirements you will be eligible to take the National Strength and Conditioning Association (NSCA) certification exam for Personal Trainer and/or Certified Strength and Conditioning Specialist.

Lecturer:
Brakeall

1. Discipline Core Courses:
   (40 hours)
   - HEED 103 Foundations of Exercise and Sport Science
   - HEED 200 Nutrition
   - HEED 306 Organization & Admin. of Exercise & Sport Science
   - PHEC 115 Methods of Group Exercise Instruction
   - PHEC 175 Foundations of Resistance Training
   - PHEC 303 Biomechanics for Exercise and Sport Science
   - PHEC 341 Psychology of Physical Activity
   - PHEC 401 Physiology of Exercise
   - PHEC 410 Advanced Strength Training
   - PHEC 411 Evaluation and Prescription in Fitness
   - PHEC 435 Lifespan Health and Fitness
   - PHEC 482 Field Experience in Health Fitness (3 hours)
   - PHEC 492 Seminar in Health Fitness
   - PHEC 495 Internship in Health Fitness (Capstone - 9 hours)

2. Courses Required in Other Departments:
   (27 hours)
   - ACCT 211 Financial Accounting
   - BIOL 149 General Biology I (GEP Group C)
   - BIOL 321 Anatomy and Physiology I
   - BIOL 322 Anatomy and Physiology II
   - BUAD 100 Introduction to Business
   - MATH 109 Elements of Applied Probability and Statistics (Core Skill 3)
   - MGMT 315 New Business Ventures
   - PSYC 150 General Psychology (GEP Group D)

Health & Physical Education

Major with Teaching Certification

Assistant Professors:
L. Simpson (Chair), R. Gallagher

Lecturer:
Bosley

- Upon successful completion of the program, you will be eligible to apply for PreK health certification and PreK physical education certification.
- The Department of Kinesiology also offers majors in athletic training and exercise and sport science.
- A minor is offered in coaching (see separate section of this catalog). You cannot minor in Health and Physical Education.

Lecturer:
Bosley

1. Discipline Core:
   (41 hours)
   - HPED 103 Foundations of Physical Education
   - HPED 104 Foundations of Health Education
   - HPED 201 Teaching Fitness
   - HPED 202 Teaching Tactical Games I
   - HPED 203 Teaching Tactical Games II
   - HPED 204 Teaching Dance and Gymnastics
   - HPED 205 Teaching Outdoor Adventures and Group Initiatives
   - HPED 208 Inclusion Strategies in Health Education
   - HPED 230 Assessment in Health & Physical Education
   - HPED 232 Teaching Health Content I: ATOD and Safety Education
   - HPED 233 Teaching Health Content II: Human Sexuality & Nutrition Education
   - HPED 234 Teaching Health Content III: Disease Prevention
   - HPED 301 Applied Biomechanics
   - HPED 406 Applied Physiology
   - HPED 407 Motor Learning and Performance

Summary of Requirements for Major in Exercise and Sport Science

<table>
<thead>
<tr>
<th>Major</th>
<th>MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in KINE:</td>
<td>49</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>27</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>76</td>
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</table>

Summary of Requirements for Major in Health & Physical Education

<table>
<thead>
<tr>
<th>Major AND TEACHING CERTIFICATION</th>
<th>MAJOR AND TEACHING CERTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Kinesiology:</td>
<td>72</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>18</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>90</td>
</tr>
</tbody>
</table>
2. Required Courses in Other Departments: (8 hours)
   BIOL 149 General Biology I (GEP Group C)
   BIOL 211 Essentials of Anatomy and Physiology

3. Recommended Courses in Other Departments:
   GEOG 104 Human Geography
   IDIS 150 Health in America (GEP Group E)
   PSYC 150 General Psychology (GEP Group D)

4. Professional Education Sequence (40 hours)
   Phase I (9 hours)
   - HPED 310 Technology in Health and Physical Education
   - HPED 416 Curriculum Design in Health and Physical Education
   - REED 317 Content Area Reading
   Phase II (18 hours)
   - EDUC 392 K-12 Field Experience
   - HPED 402 Adapted Physical Education
   - HPED 404 Health Instruction
   - HPED 408 Elementary Methods of Physical Education
   - HPED 418 Secondary Methods of Physical Education
   - REED 418 Reading and Writing Connections
   Phase III (14 hours)
   - EDUC 406 Leadership Seminar
   - HPED 497 Teaching Internship: K-12 Programs (Capstone)

5. Other Graduation/Program Exit Requirements
   - Successful presentation of a portfolio that meets institutional, Maryland state and national standards
   - Verification of taking Praxis II Health Education and Physical Education: Content and Design required by the Maryland State Department of Education before Phase III

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Health Promotion

Minor

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>HLTH 101</td>
<td>Community Health Promotion</td>
</tr>
<tr>
<td>HLTH 125</td>
<td>Health and Culture (GEP Group F)</td>
</tr>
<tr>
<td>HLTH 330</td>
<td>Epidemiology of Health</td>
</tr>
<tr>
<td>HLTH 405</td>
<td>Sexuality</td>
</tr>
<tr>
<td>HLTH 430</td>
<td>Methods and Materials for Health Promotion</td>
</tr>
<tr>
<td>HLTH 435</td>
<td>Health Promotion Programming</td>
</tr>
<tr>
<td>RECR 382</td>
<td>or Program Planning</td>
</tr>
<tr>
<td>HLTH 483</td>
<td>Field Experience in Health Promotion (3 cr.)</td>
</tr>
</tbody>
</table>

Coordinator:
Susan Gray, Professor, Department of Kinesiology and Recreation

- The curriculum is based on the professional responsibilities and competencies for health education and health promotion specialists developed by the American Association of Health Education.
- You cannot major in health promotion.

Summary of Requirements for Minor in Health Promotion

Minor

| Total Hours Required: | 21 |

MINOR
Adventure Sports Management

Major

BS in Adventure Sports Management
Located at Garrett College

Program

The mission of the B.S. degree in Adventure Sports Management is to provide students with a rigorous program to develop leadership and management skills in the adventure sports and expanding tourism industries. The program utilizes Frostburg State University’s and Garrett College’s proximity to the unique natural resource base in Western Maryland.

The B.S. degree in Adventure Sports Management is designed as an integrated “two plus two” program. The program maintains the integrity of Garrett College’s A.A.S. degree in Adventuresports while adding Frostburg’s focus on Recreation and Parks Management. All students completing the B.S. degree in Adventure Sports Management can transfer their credits back to Garrett College and receive the A.A.S. degree in Adventuresports.

Summary of Requirements for Major in Adventure Sports Management

Major

1. Adventure Sports Courses: (30 credits)
   - ADSP 330 Outdoor Education
   - ADSP 340 Expedition Planning in Adventure Sports
   - ADSP 350 Risk Management in Adventure Sports
   - ADSP 360 Entrepreneurship in Adventure Sports
   - ADSP 381 Facilitation Skills and Techniques in Adventure Sports
   - ADSP 382 Agency Assessment in Adventure Sports
   - ADSP 391 Journaling in Adventure Sports
   - ADSP 392 Mentorship I in Adventure Sports
   - ADSP 491 Professional Preparation in Adventure Sports (ASI 206)
   - ADSP 492 Mentorship (Internship) (ASI 207)

2. Recreation and Parks Management Courses: (6 credits)
   - RECR 393 History and Philosophy of Outdoor Recreation
   - RECR 488 Principles of Ecotourism

3. Content Courses Outside Department: (19 credits)
   - ASI 101 Intro ASI Park, Recreation*
   - ASI 164 Advanced Level First Aid and CPR*
   - ASI 170 Guiding and Instructing Adventuresports*
   - ASI 200 ASI Program Management*
   - ASI 201 Leadership/Group Dynamics*
   - ASI 104/105/204/205 Colloquium (1 Credit)*
   - BIO 110 Natural History (Group C: Science)*

4. Skill Courses Outside Department: (15 credits)
   - ASI 110 Backcountry Living Skills*
   - ASI Basic Skills Courses (4 Credits)*
   - ASI Intermediate Skills Courses (4 Credits)*
   - ASI Instructors Level Course (2 Credits)*
   - ASI Rescue Skills Course (2 Credits)*

* These are Garrett College courses
Recreation and Parks Management

Major

Concentrations in
- ADVENTURE SPORTS
- COMMUNITY PROGRAM DELIVERY
- HOSPITALITY MANAGEMENT & TOURISM
- THERAPEUTIC RECREATION

Professors:
Blankenship, Gray, Kauffman

Assistant Professor:
Dougherty

Affiliated Faculty:
Debra Frank, Allegany College of Maryland;
Mike Logsdon, Garrett College

Program accredited by the Council on Accreditation of Parks, Recreation, Tourism and Related Professions (COAPRT)

You are required to complete RECR 497, which includes attendance at one state, regional or national conference during your junior or senior year, and current certification in CPR and first aid.

This program may also be completed at the Community College of Baltimore County - Catonsville. Interested students may contact Maureen Dougherty, coordinator of the FSU Recreation and Parks program at CCBC, 443.840.4603.

Legal residents of Delaware may complete a recreation and parks management degree at Maryland resident tuition rates through the SREB Academic Common Market (ACM). You may retain your eligibility ONLY if you select the additional requirement options of a minor, an associate degree or a concentration. If you already have a bachelor’s degree from another institution or pursue a second major at FSU, you are not eligible to participate in ACM.

* courses offered only at Garrett College

### Summary of Requirements for Major/Minor in Recreation and Parks Management

#### Major

- **1. Discipline Core:** (36 hours)
  - RECR 201 Introduction to Recreation and Parks
  - RECR 342 Park and Facility Design
  - RECR 380 Recreation Leadership
  - RECR 382 Program Planning
  - RECR 388 Research Methods in Recreation and Parks
  - RECR 440 Organization and Administration of Recreation and Parks
  - RECR 443 Issues and Risk Management in Recreation and Parks
  - RECR 491 Practicum and Professional Seminar
  - RECR 492 Internship Project (Capstone)
  - RECR 495 Internship in Recreation
  - RECR 497 Out-of-class Requirements (see bullets at left)

- **2. Courses Outside Department:** (3 hours)
  - COSC 100/110 Intro. to Computer Science (Tech. Fluency)

- **3. Complete one of the following:**
  a. a second major
  b. a minor
  c. an associate degree
  d. a bachelor’s degree from another institution
  e. a concentration within the major as follows:

#### Minor

- **1. Required Courses:** (6 hours)
  - RECR 380 Recreation Leadership
  - RECR 382 Recreation Programming

- **2. Electives:** (15 hours)
  - Select five additional RECR courses, at least four of which must be at the 300- or 400- level, excluding field experiences and internships (RECR 480, RECR 492 and RECR 495).

#### I. Community Program Delivery Concentration

- **A. Recreation:** (12 hours)
  - Select four of the following:
    - ADSP 381 Facilitation Skills and Techniques in Recreation and Parks
    - RECR 100 Leisure and the Diverse American Culture (GEP Group F)
    - RECR 384 Special Event Management
    - RECR 393 History and Philosophy of Outdoor Recreation
    - RECR 394 Environmental Interpretation
    - RECR 448 Principles of Ecotourism
    - RECR 480 Field Experience in Recreation and Parks (3 credits)
    - HLTH 101 Community Health Promotion
    - HLTH 125 Health and Culture (GEP Group F)
    - HLTH 330 Epidemiology of Health
    - ASI 110 Backcountry and Outdoor Living Skills*

- **B. Psychology:** (6 hours)
  - PSYC 150 General Psychology (GEP Group D)
  - PSYC 210 Child Development
  - or PSYC 212 Adolescence and Adulthood

- **C. Sociology:** (6 hours)
  - SOCI 100 Intro. to Sociology (GEP Group D)
  - Select one of the following:
    - SOCI 200 Social Problems
    - SOCI 322 Social Demography
    - SOCI 325 Community Analysis
    - SOCI 326 Sociology of Rural Life
    - SOCI 328 Sociology of Urban Life
    - SOCI 366 Social Inequality

- **D. Communications Studies:** (3 hours)
  - Select one of the following:
    - CMST 102/112 Introduction to Human Communications
    - CMST 122 Introduction to Public Speaking
    - CMST 215 Small Group Communication
    - CMST 300 Interpersonal Communication
    - CMST 322 Presentational Communication
**II. Adventure Sports Concentration (27-28 hours)**

**A. Two ASI skills courses: (2 hours)**
Any two courses from Section B, C, D or E

**B. Two Introductory Level Courses: (2 hours)**
Examples include but are not limited to:
- ASI 111 Beginning Orienteering
- ASI 115 Wilderness Survival Skills
- ASI 120 Introduction to Traditional Rock Climbing
- ASI 121 Rock Craft 1
- ASI 130 Introduction to Whitewater Kayaking
- ASI 131 Introduction to Paddlesports
- ASI 133 Introduction to Whitewater Canoeing
- ASI 136 Introduction to Rafting and River Guiding
- ASI 138 Introduction to Sea Kayaking
- ASI 140 Introduction to Cross Country Mountain Biking
- ASI 145 Mountain Bike Mechanics I
- ASI 150 Beginning Alpine Skiing
- ASI 154 Beginning Snowboarding
- ASI 158 Cross Country Skiing
- ASI 159 Introduction to Telemark Skiing
- ASI 180 Introduction to New Games-Initiatives/Low Ropes Challenge Course
- ASI 190 Beginning Open Water SCUBA
- ASI 192 Basic Sailing

**C. Three Intermediate Level Courses: (3 hours)**
Examples include but are not limited to:
- ASI 117 Cold Weather Outdoor Living Skills
- ASI 210 Winter Adventure Skill
- ASI 212 Eastern Mountaineering
- ASI 220 Rock Craft 2
- ASI 221 Rock Craft 4
- ASI 222 Rock Craft 5
- ASI 226 Ice Climbing
- ASI 230 Whitewater Kayaking Techniques I
- ASI 231 Whitewater Kayaking Techniques II
- ASI 232 Whitewater Freestyle Kayaking
- ASI 233 Whitewater Canoeing Techniques I
- ASI 236 Whitewater Rafting Technique Development
- ASI 238 Sea Kayaking Techniques I
- ASI 240 Intermediate Cross Country Mountain Biking
- ASI 244 Downhill and Dual-Slalom
- ASI 247 Mountain Bike Mechanics Certification
- ASI 258 Cross Country Skiing Techniques I
- ASI 280 Intermediate Ropes Course

**D. One Instructor/Guide Level Course: (1 hour)**
Examples include but are not limited to:
- ASI 270 Rock Craft 6: Rock Climbing Instructor Development
- ASI 270 Wilderness Guide Instructor Training (LNT Master Educator)
- ASI 273 Mountain Bike Guide Development and Certification
- ASI 274 Ski School Instructor Training
- ASI 276 Whitewater Kayak Instructor Training
- ASI 277 Whitewater Rafting Instructor Training
- ASI 279 Challenge Course Facilitation

**E. One Rescue Level Course: (1 hour)**
Examples include but are not limited to:
- ASI 160 Swift Water Rescue
- ASI 162 Fundamentals of Search and Rescue
- ASI 260 Rock Craft 3: Vertical Rock Rescue

**F. Take all of the following: (9 hours)**
- ASI 110 Backcountry Living Skills
- ASI 164 Wilderness First Responder
- RECR 393 History and Philosophy of Outdoor Recreation or HUM 210 Society & the Environment

**G. Communications Studies: (3 hours)**
Select one of the following:
- CMST 102/112 Intro to Human Communications
- CMST 122 Introduction to Public Speaking
- CMST 132 Introduction to Interpersonal and Small Group Communication
- CMST 215 Small Group Communication

**H. Select two of the following: (6-7 hours)**
- ACCT 211 Financial Accounting
- BIO 110 Natural History (4 credit hours)
- MGMT 251 Management of Organizations
- MGMT 315 New Business Ventures
- PSYC 150 General Psychology (GEP Group D)
- PSYC 210 Child Psychology
- PSYC 212 Adolescence and Adulthood
- PSYC 317 Abnormal Psychology
- PSYC 385 Group Processes
- PSYC 386 Drugs and Human Behavior
- PSYC 410 Introduction to Counseling
- RECR 394 Environmental Interpretation
- RECR 448 Principles of Ecotourism

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**III. Hospitality Management & Tourism Concentration (27 hours)**

**A. Recreation courses: (3 hours)**
- RECR 384 Special Events Management
- RECR 448 Principles of Ecotourism

**B. Tourism courses: (3 hours)**
- GEOG 454 Geography of Tourism
- GEOG 455 Tourism Planning
- GEOG 456 Principles of Travel/Tourism

**C. Hotel and Resort courses: (19 hours)**
- **30-110 Food Service Sanitation
- **30-160 Quantity Food Production
- **30-203 Food Purchasing, Inventory and Cost Control
- **30-204 Menu Planning and Food Merchandising
- **30-205 Food and Beverage Cost Control
- **30-209 Hotel/Motel Front Office Management
- **30-215 Hotel/Motel Property Management

**D. Business courses: (3 hours)**
- ACCT 211 Financial Accounting
- or **61-109 Practical Accounting/Bookkeeping

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*Garrett College courses
**Allegany College of Maryland courses
IV. Therapeutic Recreation Concentration \((41-44\) credits)\)

A. Complete a 560-hour consecutive internship under both NCTRC-certified site and internship supervisors.\)

B. Recreation Courses: \((15\) hours)\)

- RECR 221 \(\) Introduction to Therapeutic Recreation
- RECR 321 \(\) Therapeutic Recreation Practices and Procedures
- RECR 421 \(\) Client Assessment and Evaluation in Therapeutic Recreation
- RECR 422 \(\) Administration and Supervision of Therapeutic Recreation
- RECR 423 \(\) Advanced Facilitation Methods for Clinical and Community Setting in Therapeutic Recreation

C. Anatomy and Physiology: \((4\) hours)\)

- BIOL 211 \(\) Essentials of Anatomy and Physiology
  or BIOL 109 Anatomy and Physiology ***

D. Abnormal Psychology: \((3\) hours)\)

- PSYC 317 \(\) Abnormal Psychology
  or PSYC 201 Abnormal Psychology ***

E. Human Growth and Development through the Life Span: \((3-6\) hours)\)

- PSYC 103 Principles of Human Growth/Development***
  or PSYC 208 Introduction to Lifespan Development
  or PSYC 210 Child Psychology and PSYC 212 Adolescence and Adulthood

F. Human Services and Related Biological and Physical Sciences: \((16\) hours)\)

- BIOL 149 \(\) General Biology I \((GEP)\) \((4)\)
  or BIOL 101 General Biology \((4)***
- PSYC 150/151 \(\) General Psychology \((GEP)\)
  or PSYC 101 Introduction to Psychology ***

Select 3 courses from:

- BIOL 202 \(\) Anatomy and Physiology II
- PSYC 213 \(\) Psychology of Adjustment
- PSYC 250 \(\) Death and Dying
- PSYC 404 \(\) Psychology of Exceptional Children
- PSYC 409 \(\) Human Learning and Cognition
- PSYC 418 \(\) Social Psychology
- PSYC 489 \(\) Child and Adolescent Disorders
- PSYC 410 \(\) Introduction to Counseling
- SOCI 100 \(\) Introduction to Sociology \((GEP)\)
- SOCI 200 \(\) Social Problems
- SOCI 203 \(\) Sociology of Deviant Behavior
- SOCI 340 \(\) Criminology
- SOCI 442 \(\) Juvenile Delinquency
- SOCI 468 \(\) Sociology of Later Life
- PHEC 303 \(\) Biomechanics for Exercise Science
- SOCI 101 \(\) Introduction to Sociology ***
- BIOL 202 \(\) Human Anatomy and Physiology II ***
- BIOL 201 \(\) Human Anatomy and Physiology I ***

**Allegheny College of Maryland courses
*** CCBC, Catonsville courses
College of Liberal Arts & Sciences

Programs in the College of Liberal Arts & Sciences

- Addictions Counselor Preparation
- African American Studies
- Animal Behavior
- Art & Design
- Art History
- Biology
- Chemistry
- Communication Studies
- Computer Print Graphics
- Computer Information Systems
- Computer Science
- Cultural Anthropology
- Dance
- Earth Science
- Engineering
- English
- Environmental Analysis & Planning
- Ethnobotany
- Film Studies
- Fine Arts
- Foreign Languages & Literature
- Forestry
- Geography
- Graphic Design
- Health Science
- Health Sciences Preparatory Programs
- Dental Hygiene
- Dentistry
- Medical Technology
- Medicine
- Occupational Therapy
- Optometry
- Pharmacy
- Physical Therapy
- Veterinary Medicine
- History
- Information Technology
- International Area Studies
- International Studies
- Interpretive Biology & Natural History
- Jazz Studies
- Journalism
- Law and Society
- Law: Bachelor’s/J.D. Dual Degree
- Law School Preparation
- Leadership in Psychology
- Leadership Studies
- Liberal Studies
- Mass Communication
- Mathematical Sciences
- Mathematics
- Mechanical Engineering
- Music
- Nursing
- Nursing Preparation
- Philosophy
- Political Science
- Professional Writing
- Psychology
- Public Administration
- Public Relations
- Secure Computing & Information Assurance
- Social Work
- Sociology
- Sustainability Studies
- Theatre
- Urban & Regional Planning
- Wildlife & Fisheries
- Women’s Studies

College of Liberal Arts & Sciences Strategic Plan

Vision Statement

The College of Liberal Arts and Sciences will be recognized for providing experientially based learning opportunities. Its distinctive and distinguished programs will contribute to the reputation of Frostburg State University as the premier educational and cultural center for the region and for serving as a catalyst for economic development. The college’s efforts in undergraduate research and experiential learning will achieve national recognition for providing “real life” experiences for students and for serving as a national model for regional engagement.

Mission

The mission of the College of Liberal Arts and Sciences (CLAS) is to provide students with a rigorous liberal arts and sciences curriculum grounded in a flexible, broad-based general education program and enriched by the availability of challenging academic majors and minors, graduate programs, interdisciplinary offerings, and other newly evolving programs that are responsive to emerging societal needs.

The college mission is implemented through a diverse, recognized, and credentialed faculty committed to excellence in teaching, learning, scholarship, and creative artistic production.

CLAS fulfills its mission by preparing future leaders to enter a complex changing global society with competence and confidence.

Core Values

1. We value a high standard of excellence in teaching, service, research, and other professional endeavors.
2. We value a stimulating, collaborative, and supportive setting for students, faculty, staff, and administrators characterized by creativity, innovation, and excellence.
3. We value lifelong learning and professional development for students, faculty, staff, and administrators.
4. We value an atmosphere of mutual respect and support, which promotes open sharing of ideas and viewpoints and debate of issues and concerns.
5. We value high standards of ethics, integrity, responsibility, and accountability.
6. We value academic freedom.
7. We value diversity and an atmosphere of mutual respect and acceptance.
8. We value diversity.
9. We value assessment as a mechanism for continuous improvement.
10. We value nimble response to change.

Fundamental Assumptions

1. Teaching methodologies, strategies, curricula, and classroom architecture must be informed by research on the science of learning.
2. In an environment of accelerating change, FSU must be responsive to emerging needs of society.
3. A pattern of continuously diminishing state resources for public higher education has developed nationally.
4. New or expanded programs will be supported by reallocation of existing resources or through external funding.
5. Following the Board of Regents initiative, FSU will continue to improve effectiveness and efficiency.
6. Collaboration across programs, departments, divisions, and colleges can lead to enhanced student learning and improved effectiveness and efficiency.
7. Growth of FSU student population will continue but not uniformly across colleges or departments.
8. Faculty development is critical to achieving educational objectives.
9. CLAS will increase its support of economic development throughout the region.

Dr. Joseph M. Hoffman
Dean
College of Liberal Arts & Sciences
241 Compton Science Center
301.687.4120

Dr. Cindy Herzog
Associate Dean
College of Liberal Arts & Sciences
241 Compton Science Center
301.687.4142

Dr. Scott Fritz
Assistant Dean
College of Liberal Arts & Sciences
247 Compton Science Center
301.687.7020
Addictions Counseling

Emphasis

Frostburg State University offers an Emphasis in Addictions Counseling to help prepare you to be a licensed addiction counselor. The University also offers additional courses you can take to prepare for state certification. Below is information on FSU’s Emphasis followed by information on Maryland state certification.

Emphasis in Addictions Counseling at Frostburg State University

Complete a minimum of 16 credit hours distributed as follows:

a. Required Courses: (13 hours)

- PSYC 150/151 General Psychology (GEP Group D)
- PSYC 386 Drugs and Human Behavior
- PSYC 387 Addictions Treatment Delivery
- PSYC 388 Treatment Issues and Theory in Addictions
- PSYC 389 Ethics for the Addiction Counselor

b. Elective: (3 hours)

Select ONE of the following:
- PSYC 385 Group Processes
- PSYC 410 Introduction to Counseling
- SOWK 379 Foundations for Generalist Practice
- SOWK 473 Generalist Practice with Groups

Additional Maryland State Certification Information

The Board of Professional Counselors and Therapists oversees the following regulations for Addictions Counselors in Maryland. There are two levels of Maryland state certification relevant to the undergraduate student, which are briefly described below. These levels pertain to those who want to apply for and take the state exam above and beyond any requirements for the undergraduate major. For complete requirements, contact:

Board of Professional Counselors and Therapists
4201 Patterson Ave.
Baltimore, MD 21215-2299
410.764.4732

Certified Supervised Counselor – Alcohol and Drug (CSC-AD):

- Associate degree in a health or human service counseling field
- 15 credit hours of alcohol and drug counselor training with at least 1 credit hour in ethics of alcohol and drug counseling and the remaining credits from the list of topics areas (see below).

Certified Associate Counselor – Alcohol and Drug (CAC-AD):

- Bachelor’s degree in a health or human service counseling field.*
  - At FSU, students majoring in psychology or social work are automatically eligible, while majors in law and society, sociology or other areas will be considered on a case-by-case basis.
- 20 credit hours of alcohol and drug counselor training with at least 1 credit hour in ethics of alcohol and drug counseling and the remaining credits from the list of topics areas (see below).

*Completing one of these degree programs AND taking the required alcohol and drug counselor training courses are the first steps in meeting certification requirements. At the bachelor’s degree level you must also have at least three years or 3,000 hours of supervised experience, and two years of the experience must have been completed after the award of the degree. You will also have to pass an examination selected by the Board.

List of Topic Areas

The credit hour requirement must be satisfied from the following content areas. Each area is followed by the appropriate FSU course(s); all are 3-credit courses except Ethics. Be aware that although bachelor’s degree counselors need only 20 credit hours from the following list to satisfy the course requirement, your examination will cover ALL CONTENT AREAS.

1. Pharmacology of Psychoactive Drugs
   - PSYC 386
2. Individual Counseling Techniques
   - PSYC 410, SOWK 379
3. Group Therapy Techniques
   - PSYC 385, SOWK 473
4. Abnormal Psychology
   - PSYC 317
African American Studies

Minor

Coordinator:
Dr. Amy Armiento, Associate Professor, Department of English

Professors:
Bullimore, Saku (Geography), Makang (Philosophy), Moore (Sociology), O’Rorke (Political Science), Yost-Rushton (Theatre and Dance)

Associate Professors:
Abbay (History), Redmond (Psychology), Rogers Thomas (Sociology)

Assistant Professor:
English (Visual Arts)

Lecturers:
Stevenson (Athletics), Wynder (Diversity Center)

- You may minor in African American Studies. There is no major available.
- All courses in African American Studies may be taken whether or not you wish to pursue the minor.
- A listing of Special Topics courses offered for the minor in future semesters is available through the Coordinator.

Summary of Requirements for Minor in African American Studies

<table>
<thead>
<tr>
<th>MINOR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in African American Studies:</td>
<td>3-18</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>0-15</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>18</td>
</tr>
</tbody>
</table>

1. Required Core Course: (3 hours)
AST 200 Introduction to African American Studies (GEP Group F)

2. Elective Courses: (15 hours)
AST 300/HIST 301 Traditional Africa
AST 400 Africans of the Diaspora (GEP Group F)
AST 425 History of African American Theatre
AST 490 Topics in African American Studies
AST 494 AAST Practicum
ART 302 Artistic Traditions: Africa and the Americas (GEP Group F)
ENGL 231 African American Literature (GEP Group F)
GEOG 324 Urban Geography
GEOG 403 Geography of Sub-Saharan Africa
HIST 353 Contemporary Africa
PHIC 415 The Black Athlete in American Society
PHIL 311 Asian and African Philosophy (GEP Group F)
POSC 330 Politics of Africa
PSYC 325 African American Psychology
PSYC 450 Multicultural Counseling
SOCI 305 Racial and Cultural Minorities (GEP Group F)
SOCI 306 Sociology of African Americans
SOCI 307 African Americans of Appalachia

Special Topics courses numbered 290, 403, 490 or 491 in the participating departments when approved by Coordinator. Independent Studies courses numbered 499 when approved by the Coordinator, limited to one 3-hour total enrollment.
Animal Behavior

Coordinator: Erica Kennedy, Associate Professor, Department of Psychology

Professors:
- Raesy, Serfass (Biology)

Associate Professor:
- Ammer (Biology), Kennedy (Psychology)

Assistant Professor:
- Lambert (Biology)

- Animal Behavior is an interdisciplinary minor.
- You cannot major in animal behavior.
- You may find this minor of special interest if you are majoring in biology, interpretive biology and natural history, psychology, or wildlife and fisheries, or if you wish to attend veterinary medicine school.
- Advanced students may apply to care for and conduct research with FSU’s small colony of cotton-top tamarin monkeys or to assist with field research projects studying diverse animals in their natural habitats.

Summary of Requirements for Minor in Animal Behavior

<table>
<thead>
<tr>
<th>Minor</th>
<th>MINOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Biology:</td>
<td>10-11</td>
</tr>
<tr>
<td>Hours Required in Psychology:</td>
<td>12</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>22-23</td>
</tr>
</tbody>
</table>

1. Required Courses in Biology: (7 hours)
   - BIOL 149 General Biology I (GEP Group C)
   - BIOL 334 Animal Behavior

2. Required Courses in Psychology: (9 hours)
   - PSYC 150 General Psychology (GEP Group D)
   - PSYC 345 Animal Learning and Cognition
   - PSYC 420 Physiological Psychology

3. Choose one course from Biology and one course from Psychology from the list of courses below. (6-7 hours)

   **One of the following Biology courses:**
   - Biol 402 Evolution
   - Biol 406 Ornithology
   - Biol 422 Herpetology
   - Biol 423 Mammalogy

   **One of the following Psychology courses:**
   - PSYC 210 Child Development
   - PSYC 306 Sensation and Perception
   - PSYC 409 Human Learning and Cognition
   - PSYC 445 Research Applications in Animal Learning and Cognition
   - PSYC 490 Evolutionary Psychology

4. Recommended Research Experience:
   - PSYC 499 Psychology Projects
   - or BIOL 499 Special Problems in Biology
Art & Design

Major

Teaching Certification Option

Professors:
Brown (chair), Davis, Dieruf, Rhodes

Associate Professors:
Hein, Herzfeld, Hodges

Assistant Professors:
English, Odone

- If you complete the major in Art & Design, you will earn the Bachelor of Fine Arts (BFA) degree.
- Minors are offered in art history, fine arts, and graphic design. An emphasis is offered in Computer Print Graphics. See separate sections of catalog.
- You must successfully pass the Studio Focus Review (ART 291) and Senior Review (ART 491).
- You must successfully complete ART 207 Graphic Design by the time you earn 45 credit hours. ART 207 also provides instruction in technology fluency and information literacy for BFA candidates.
- Only courses in which a grade of C or better is earned may count towards satisfaction of major and minor requirements.
- Optional internships are available to qualifying students.

Summary of Requirements for BFA in Art & Design

<table>
<thead>
<tr>
<th>Major</th>
<th>FOR TEACHING CERT. OPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Art:</td>
<td>71</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>0</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>71</td>
</tr>
</tbody>
</table>

1. Basic Courses: (15 hours)
   ART 104 Two-Dimensional Design
   ART 105 Three-Dimensional Design
   ART 207 Graphic Design (Tech. Fluency)
   ART 212 Drawing
   ART 412 Advanced Drawing

2. Introductory Studio: (21 hours)
   ART 202 Ceramics
   ART 216 Illustration
   ART 221 Painting
   ART 232 Printmaking
   ART 235 Photography
   ART 240 Sculpture
   ART 307 Computer Graphics or ART 336 Digital Imaging for the Fine Arts
   Graphic Design students must include ART 307 and Fine Art students must include ART 336.

3. Studio Focus Review: (1 hour)
   ART 291 Studio Focus Review

4. Art History and Critical Studies: (12 hours)
   ART 301 Artistic Traditions: Asia (GEP Group F)
   or ART 302 Artistic Traditions: Africa and the Americas (GEP Group F)
   ART 360 Western Art History
   ART 408 20th Century Art History
   ART 415 Art Criticism

5. Advanced Studio Focus (18 hours — 12 credit hours in focus and 6 credit hours in secondary area)
   OR Dual-Media Studio Focus (18 hours — 9 credit hours in focus and 9 hours in secondary area)
   - ART 402 Advanced Ceramics
   - ART 416 Advanced Illustration
   - ART ___* Advanced Graphic Design
   - ART 421 Advanced Painting
   - ART 432 Advanced Printmaking
   - ART 435 Advanced Photography
   - ART 440 Advanced Sculpture
   - *ART 407 Advanced Graphic Design: Print
   - *ART 414 Advanced Graphic Design: Interactive Multimedia Design

6. Senior Portfolio: (3 hours)
   ART 411 Senior Portfolio (Capstone) (co-registration in ART 491 required)

7. Senior Review: (1 hour)
   ART 491 Senior Review (co-registration in ART 411 required)
Art History

Minor

Professors:
Brown (chair), Davis, Dieruf, Rhodes

Associate Professors:
Hein, Herzfeld, Hodges

Assistant Professors:
English, Odone

Minors are also offered in fine arts and graphic design. A major is offered in Art & Design. See separate listings in this catalog.

Only courses in which a grade of C or better is earned may count towards satisfaction of major and minor requirements.

Summary of Requirements for Minor in Art History

<table>
<thead>
<tr>
<th>MINOR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Art:</td>
<td>15-18</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>3-0</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>18</td>
</tr>
</tbody>
</table>

Summary of Requirements for P-12 Teaching Certification Option in Art

If you wish to complete a Maryland State approved program in teaching Art, you must:

- Complete the BFA in Art and Design.
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Complete the professional education sequence described in Education: P-12 Programs.

1. Basic Courses: (3 hours)
Choose from:

| ART 100 | Art Appreciation (GEP Group A) |
| HIST 100 | The Twentieth Century World (GEP Group B or Group F) |

2. Core Courses: (12 hours)

| ART 301 | Artistic Traditions: Asia (GEP Group F) |
| ART 302 | or ART 302 Artistic Traditions: Africa and the Americas (GEP Group F) |
| ART 360 | Western Art History |
| ART 408 | 20th Century Art History |
| ART 415 | Art Criticism |

3. Elective: (3 hours)
Choose from:

| ART 370 | Women/Gender and the Visual Arts |
| ART 380 | 19th Century Art History |
| ART 430 | Greek and Roman Art |
| ART 460 | Renaissance and Baroque Art History |
Biology

Major

Concentrations in

- Molecular Biology
- Environmental Science

Option in

- Pre-Health Professions

Minor

See related programs:

- Ethnobotany
- Forestry
- Interpretive Biology & Natural History
- Wildlife & Fisheries

Contact:

Thomas Serfass, Professor, Department of Biology

Professors:

Ammer, Fritz, Raesly, Seddon, Serfass (Chair)

Associate Professors:

Brogi, Keller, H. Li, Pegg, Puthoff

Assistant Professors:

Lambert, Studinski, Taylor, Vrentas

Summary of Requirements for Major/Minor in Biology

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Introductory Level Courses:</strong> (12 hours)</td>
<td><strong>1. Introductory Level Courses:</strong> (12 hours)</td>
</tr>
<tr>
<td>BIOL 149 General Biology I (GEP Group C)</td>
<td>BIOL 149 General Biology I (GEP Group C)</td>
</tr>
<tr>
<td>BIOL 160 General Zoology</td>
<td>BIOL 160 General Zoology</td>
</tr>
<tr>
<td>BIOL 161 General Botany</td>
<td>BIOL 161 General Botany</td>
</tr>
<tr>
<td><strong>2. Advanced Level Courses:</strong> (19 hours)</td>
<td><strong>2. Elective Hours Within Department:</strong> (9-12 hours)</td>
</tr>
<tr>
<td>BIOL 304 Microbiology</td>
<td>Select any 3 biology courses between the 300 and 455 level.</td>
</tr>
<tr>
<td>BIOL 310 Cell Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 340 General Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOL 350 Genetics</td>
<td></td>
</tr>
<tr>
<td>BIOL 402 Evolution</td>
<td></td>
</tr>
<tr>
<td>BIOL 496 Seminar in Biology (Capstone)</td>
<td></td>
</tr>
<tr>
<td><strong>3. Biology Electives:</strong> (9-12 hours)</td>
<td><strong>4. Required Courses in Other Departments:</strong> (30 hours)</td>
</tr>
<tr>
<td>Select any 3 classes between the 300 and 455 level.</td>
<td>Chemistry:</td>
</tr>
<tr>
<td></td>
<td>CHEM 201 and 202 General Chemistry I &amp; II</td>
</tr>
<tr>
<td></td>
<td>(CHEM 201 - GEP Group C)</td>
</tr>
<tr>
<td></td>
<td>CHEM 311 and 312 Organic Chemistry I</td>
</tr>
<tr>
<td></td>
<td>CHEM 321 and 322 Organic Chemistry II</td>
</tr>
<tr>
<td><strong>Mathematics:</strong></td>
<td>Mathematics:</td>
</tr>
<tr>
<td>(Core Skill 3)</td>
<td>(Core Skill 3)</td>
</tr>
<tr>
<td>Select one from:</td>
<td>Select one from:</td>
</tr>
<tr>
<td>MATH 119 College Algebra</td>
<td>MATH 119 College Algebra</td>
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<tr>
<td>MATH 120 Pre-Calculus Mathematics (Core Skill 3)</td>
<td>MATH 120 Pre-Calculus Mathematics (Core Skill 3)</td>
</tr>
<tr>
<td>or any course above 210</td>
<td>or any course above 210</td>
</tr>
<tr>
<td><strong>Physics:</strong></td>
<td>Physics:</td>
</tr>
<tr>
<td>PHYS 215 and 216 General Physics I &amp; II</td>
<td>PHYS 215 and 216 General Physics I &amp; II</td>
</tr>
<tr>
<td>(PHYS 215 - GEP Group C)</td>
<td>(PHYS 215 - GEP Group C)</td>
</tr>
<tr>
<td>or PHYS 261 and 262 Principles of Physics I &amp; II</td>
<td>or PHYS 261 and 262 Principles of Physics I &amp; II</td>
</tr>
<tr>
<td>(PHYS 261 - GEP Group C)</td>
<td>(PHYS 261 - GEP Group C)</td>
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</table>

<table>
<thead>
<tr>
<th>Hours Required in Biology:</th>
<th>40-43</th>
<th>21-24</th>
<th>42-44</th>
<th>46-48</th>
<th>46</th>
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<tbody>
<tr>
<td>Hours Required in Other Depts.:</td>
<td>30</td>
<td>0</td>
<td>30</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total Hours Required:</strong></td>
<td>70-73</td>
<td>21-24</td>
<td>72-74</td>
<td>85-87</td>
<td>86</td>
</tr>
</tbody>
</table>
The molecular biology concentration offers an interdisciplinary program with a strong emphasis on laboratory experiences in biology and chemistry, while maintaining a strong biology core. The option is best suited for students who wish to pursue an advanced degree in cell or molecular biology or to find employment in the biotechnology industry.

1. **Introductory Level Courses:** (12 hours)
   - BIOL 149 General Biology I (GEP Group C)
   - BIOL 160 General Zoology
   - BIOL 161 General Botany

2. **Advanced Level Courses:** (16 hours)
   - BIOL 304 Microbiology
   - BIOL 310 Cell Biology
   - BIOL 340 General Ecology
   - BIOL 350 Genetics
   - BIOL 496 Seminar in Biology (Capstone)

3. **Advanced Level Classes in Biology** (8 hours)
   - BIOL 321 Anatomy and Physiology I
   - BIOL 322 Anatomy and Physiology II
   - or
   - BIOL 302 Animal Physiology
   - BIOL 427 Comparative Anatomy

4. **Electives:** (6-8 hours)
   Choose two of the following:
   - BIOL 302 Animal Physiology
   - BIOL 303 Plant Physiology
   - BIOL 340 General Ecology
   - BIOL 402 Evolution
   - BIOL 404 Histology
   - BIOL 456 Advanced Microscopy
   - BIOL 499 Special Problems in Biology
   - or IDIS 493 Honors Thesis

5. **Required Courses in Other Departments:** (39 hours)
   **Chemistry:**
   - CHEM 201 and 202 General Chemistry (CHEM 201 – GEP Group C)
   - CHEM 311 and 312 Organic Chemistry I
   - CHEM 321 and 322 Organic Chemistry II
   - CHEM 455, 457 and 456 Biochemistry I, II and Biochemistry Lab
   **Mathematics:**
   - MATH 109/110 Elements of Applied Probability & Statistics (Core Skill 3)
   and select one from:
   - MATH 220 Calculus for Applications I
   - MATH 236 Calculus I (Core Skill 3)
   **Physics:** (8 hours)
   - PHYS 215 and 216 General Physics I & II (PHYS 215 – GEP Group C)
   or
   - PHYS 261 and 262 Principles of Physics I & II (PHYS 261 – GEP Group C)
Summary of Requirements for Major in Biology – Environmental Science Concentration

1. Introductory Level Courses: (22 hours)
   - BIOL 149 General Biology I (GEP Group C)
   - BIOL 160 General Zoology
   - BIOL 161 General Botany
   - ECON 201/211 Macroeconomics (GEP Group D)
   - GEOG 103/113 Physical Geography (GEP Group C)
   - POSC 110/112* Introduction to American Politics (GEP Group D)
     or POSC 113/114 Introduction to World Politics (GEP Group D)
     or POSC 131** Introduction to Comparative Politics (GEP Group D or F)

2. Advanced Level Courses: (24 hours)
   - BIOL 304 Microbiology
   - BIOL 310 Cell Biology
   - BIOL 340 General Ecology
   - BIOL 350 Genetics
   - BIOL 402 Evolution
   - BIOL 494 Field Experiences in Biological Sciences (Capstone - 6 credits)

3. Supporting Courses: (16 hours)
   - BIOL 406 Ornithology
   - or BIOL 423 Mammalogy
   - or BIOL 426 Vertebrate Zoology
   - BIOL 425 Forest Ecology and Conservation
   - BIOL 450 Ecology and Management of Wildlife Populations
     or BIOL 420 Fish Management and Culture
   - ECON 202 Microeconomics
   - GEOG 473 Environmental Law

4. Courses in Other Departments (18 hours)
   - Chemistry:
     - CHEM 201 and 202 General Chemistry (CHEM 201 – GEP Group C)
     - CHEM 420 Environmental Chemical Analysis
   - Mathematics:
     - MATH 109/110 Elements of Applied Probability and Statistics (Core Skill 3)
     - Select one from:
       - MATH 119 College Algebra
       - MATH 103 Trigonometry
       - MATH 120 Pre-Calculus Mathematics (Core skill 3)
     - or any course above 210

5. Electives: (6 hours)
   - Select two courses from different groups.
   - Group I Advanced Economics
     - ECON 309 Comparative Economic Systems
     - ECON 405 Economic Growth and Development: The Developing Economies
     - ECON 410 Resource and Energy Economics
   - Group II Advanced Political Science
     - GEOG 407 Political Geography
     - POSC 330 Politics of Africa
     - POSC 331 Politics of Latin America
     - POSC 332 Politics of the Middle East
     - POSC 450 Environmental Public Policy
   - Group III Advanced Humanities
     - ENGL 440 Literature of the Environment
     - HIST 409 World Environmental History
     - PHIL 315 Philosophy and the Environment

Check the prerequisites for other POSC courses before choosing your introductory POSC course.

* POSC 131 preferred prerequisite for POSC 330, 331, 332.
** POSC 110/112 required prerequisite for POSC 450

Summary of Requirements for Double Major in Secondary Teacher Education

If you wish to complete a Maryland State-approved program in teaching secondary science, you must:

- Complete the BA/BS in biology in any concentration.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- In addition to the regular major requirements, you must take coursework in chemistry, physics and earth science in order to qualify for Maryland State certification in science and to meet NCATE accreditation standards. See the Secondary Teacher Education Program Coordinator for details.

For students interested in the stewardship of natural resources with a greater emphasis on economic and political perspectives.

This concentration allows you to choose electives in economics, political science and the humanities which potentially add a thematic direction to your degree.

You should not choose this concentration if you are in pre-health professions or planning to attend a traditional biology graduate program.
## Interpretive Biology and Natural History

### Major

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductory Level Courses</td>
<td>29 hours</td>
</tr>
<tr>
<td>Advanced Level Courses</td>
<td>17 hours</td>
</tr>
<tr>
<td>Electives</td>
<td>22 hours</td>
</tr>
<tr>
<td>Total Hours</td>
<td>65-68</td>
</tr>
</tbody>
</table>

### Summary of Requirements for Major in Interpretive Biology and Natural History

#### Major

1. **Introductory Level Courses:** (29 hours)
   - BIOL 149 General Biology I (GEP Group C)
   - BIOL 160 General Zoology
   - BIOL 161 General Botany
   - CHEM 201 General Chemistry (GEP Group C)
   - CMST 102/112 Introduction to Communication
   - GEOG 103/113 Physical Geography
   - MATH 119 College Algebra

   or MATH 120 Pre-Calculus Mathematics (Core Skill 3)

   or any math course above 219

   MATH 109/110 Elements of Applied Probability and Statistics (Core Skill 3)

2. **Advanced Level Courses** (17 hours)
   - ENGL 339 Scientific Writing
     or ENGL 338 Technical Writing (Core Skill 2)
   - BIOL 334 General Animal Behavior
   - BIOL 340 General Ecology
   - BIOL 426 Vertebrate Zoology
   - BIOL 494 Field Experiences in the Biological Sciences (Capstone, minimum 3 credits)

3. **Electives** (22 hours)
   - Take one of the following:
     - BIOL 406 Ornithology
     - BIOL 417 Ichthyology
     - BIOL 422 Herpetology
     - BIOL 423 Mammalogy
   - Take one of the following:
     - BIOL 309 General Entomology
     - BIOL 411 Invertebrate Zoology
   - Take one of the following:
     - BIOL 305 Dendrology
     - BIOL 314 Plant Taxonomy
   - Take one additional course from above electives or one of the following:
     - BIOL 200 Scientific Investigation and Communication
     - BIOL 230 Wildlife Techniques
     - BIOL 313 Plant Evolution and Diversity
     - BIOL 402 Evolution
     - BIOL 420 Fish Management and Culture
     - BIOL 425 Forest Ecology and Conservation
     - BIOL 450 Ecology and Management of Wildlife Populations

   Take two of the following:
   - GEOG 275 Fundamentals of Geographic Data Handling (Tech. Fluency)
   - GEOG 317 Principles of Geographic Information Science
   - GEOG 406 Management and Conservation of Natural Resources
   - GEOG 430 Surface Water Hydrology
   - GEOG 433 Surveying and Field Techniques
   - GEOG 441 Soil Analysis
   - GEOG 445 Biogeography
   - GEOG 472 Environmental Planning
   - GEOG 473 Environmental Law
   - RECR 342 Park and Facility Design
   - RECR 380 Recreation Leadership
   - ART 235 Photography
   - CMST 322 Presentational Communication

---

### Contact:
Sunshine Brosi, Associate Professor, Department of Biology

### Professors:
Ammer, Fritz, Raesly, Seddon, Serfass (Chair)

### Associate Professors:
Brosi, Keller, Li, Pegg, Puthoff

### Assistant Professors:
Lambert, Studinski, Taylor, Vrentas

Students majoring in Interpretive Biology and Natural History will learn the skills to teach the general public about the great outdoors. A variety of biological disciplines will be explored including zoology and botany.

Students are required to participate in a capstone internship working with a federal, state or private agency or industry related to individual interest.

Students interested in professional and graduate degrees may need to take additional courses.

Minors are available in biology, forestry, ethnobotany, geography, and sustainability studies.
Chemistry

Major

Minor

Track in:
- TRADITIONAL CHEMISTRY

Concentrations in:
- PROFESSIONAL CHEMISTRY
- BIOCHEMISTRY

Professors:
- Larivee (Chair), Senese

Associate Professors:
- Biser, Simon

Assistant Professors:
- Crawford, Norris

- All chemistry majors must take the core courses and select either the Traditional Track, Professional Concentration, Biochemistry Concentration or Teaching Certification Option to fulfill requirements for the major. The Traditional Track is recommended for students wishing to double major.

- Chemistry is often selected as a major by students planning to enter health professions careers. The Biochemistry Concentration is a suitable choice. (See the section on Health Professions Preparation of this catalog.)

- The Professional Concentration is a strong program for graduate school preparation.

Summary of Requirements for Major/Minor in Chemistry

### Major

1. Core Introductory Level Courses: (8 hours)
   - CHEM 201 General Chemistry I (GEP Group C)
   - CHEM 202 General Chemistry II

2. Core Advanced Courses: (23 hours)
   - CHEM 311 Organic Chemistry I
   - CHEM 312 Organic Chemistry Laboratory I
   - CHEM 321 Organic Chemistry II
   - CHEM 322 Organic Chemistry Laboratory II
   - CHEM 304 Computational Tech. in Chem. (Tech. Fluency)
   - CHEM 305 Research Methods in Chemistry
   - CHEM 441 Physical Chemistry Lecture I
   - CHEM 445 Physical Chemistry Lab I
   - CHEM 491 Seminar in Chemistry
   - CHEM 492 Capstone Experience

3. Required Courses in Other Departments:
   - Mathematics: (8 hours)
     - MATH 236 Calculus I (Core Skill 3)
     - MATH 237 Calculus II
   - Physics: (8 hours)
     - PHYS 215, 216 General Physics I, II (215: GEP Group C)
     - PHYS 261, 262 Principles of Physics I, II (261: GEP Group C)

4. Choice of Specialization: (12-61.5 hours)
   - Majors must choose the Traditional Track, Professional Concentration, Biochemistry Concentration or Teaching Certification Option. Requirements listed below.

5. All majors must earn a C or better in CHEM 201, 202, 311, 320, 321.

### Minor

1. Core Introductory Level Courses: (8 hours)
   - CHEM 201 General Chemistry I (GEP Group C)
   - CHEM 202 General Chemistry II

2. Core Advanced Courses: (17 hours)
   - CHEM 311 Organic Chemistry I
   - CHEM 312 Organic Chemistry Laboratory I
   - and 9 additional hours in Chemistry, 300 level or above, no more than 3 credit hours from CHEM 491 Seminar in Chemistry, CHEM 492 Capstone Experience, CHEM 493 Advanced Chemical Research, CHEM 495 Internship in Chemistry and CHEM 499 Special Problems in Chemistry

### Requirements for the Traditional Track for Chemistry Majors

1. Core Courses: (47 hours)
   - Required of all Chemistry majors, listed above

2. Advanced Courses: (8 hours)
   - CHEM 421 Instrumental Analysis
   - CHEM 442 Physical Chemistry II
   - CHEM 446 Physical Chemistry Lab II

3. Required Courses in Mathematics: (4 hours)
   - MATH 238 Calculus III

4. All majors in this track must earn a C or better in CHEM 441.
requirements for the secondary education chemistry track

1. core courses: (47 hours)
   required of all chemistry majors, listed above.

2. advanced courses: (8 hours)
   chem 421 instrumental analysis
   chem 455 biochemistry i
   chem 394 peer mentoring in chemistry

3. required courses in other departments (4 hours)
   biol 149 general biology (gep group c)

4. required courses in education (33 hours)
   • must complete the secondary teacher education major.
   • see the secondary teacher education program coordinator for details.
   • note: this track may not meet the requirement for graduate studies in chemistry.

requirements for the professional concentration for chemistry majors

1. core courses: (47 hours)
   required of all chemistry majors, listed above.

2. advanced courses: (16 hours)
   chem 411 advanced inorganic chemistry
   chem 421 instrumental analysis
   chem 442 physical chemistry ii
   chem 446 physical chemistry lab ii
   chem 455 biochemistry i
   chem 493 advanced chemistry research (1 hour)

3. required elective courses (5-6 hours)
   a minimum of 5 hours in at least two courses:
   chem 420 environmental chemical analysis
   chem 438 advanced organic chemistry
   chem 456 biochemistry lab
   chem 457 biochemistry ii
   chem 460 environmental chemistry
   chem 490 selected topics in chemistry
   chem 493 advanced chemistry research (2 additional hours)

4. required course in other departments: (8 hours)
   biol 149 general biology
   math 238 calculus iii

5. all majors in this concentration must earn a c or better in chem 441.

requirements for the biochemistry concentration for chemistry majors

1. core courses: (47 hours)
   required of all chemistry majors, listed above.

2. advanced courses: (9 hours)
   chem 455 biochemistry i
   chem 456 biochemistry lab
   chem 457 biochemistry ii

3. required courses in biology: (15 hours)
   biol 149 general biology i (gep group c)
   biol 304 microbiology
   biol 350 genetics
   biol 435 molecular biology

4. required electives: (1-4 hours)
   select from among:
   chem 411 advanced inorganic chemistry
   chem 420 environmental chemical analysis
   chem 421 instrumental analysis
   chem 442 physical chemistry ii
   chem 493 advanced chemistry research (1-3 hours)
   math 238 calculus iii

5. all majors in this concentration must earn a c or better in chem 455.
## Communication Studies

### Major

<table>
<thead>
<tr>
<th>Tracks In:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CONFLICT COMMUNICATION STUDIES</td>
</tr>
<tr>
<td>• LEADERSHIP COMMUNICATION STUDIES</td>
</tr>
<tr>
<td>• PUBLIC COMMUNICATION AND RHETORICAL STUDIES</td>
</tr>
</tbody>
</table>

**Summary of Requirements for Major/Minor In Communication Studies**

### Major

1. **Communication Studies Core Courses:** (18 hours)
   - All of the following:
     - CMST 102/112 Introduction to Human Communication
     - CMST 300 Interpersonal Communication
     - CMST 335 Organizational Communication
     - CMST 451 Seminar in Communication Theory
     - CMST 485 Issues and Responsibilities of Communication
     - CMST 494 Communication Studies Practicum (3 credits)
     - or CMST 492 Internship Project (3 credits) (Capstone)

2. **Communication Studies Tracks:** (18 hours)
   - Select one 12-hour track; also, select one additional course from each of the other two tracks (6 hours):
   - **Conflict Communication Studies**
     - CMST 302 Argumentation and Advocacy
     - CMST 312 Language Behavior and Communication
     - CMST 345 Conflict Management
     - CMST 350 Intercultural Communication (GEP Group F)
   - **Leadership Communication Studies**
     - CMST 215 Small Group Communication
     - CMST 225 Interviewing
     - CMST 322 Presentational Communication
     - LEAD 101 Introduction to Leadership Studies
   - **Public Communication and Rhetorical Studies**
     - CMST 302 Argumentation and Advocacy
     - CMST 322 Presentational Communication
     - CMST 355 Political Communication
     - CMST 422 Seminar in Rhetorical Criticism

3. **Required Courses in Other Departments:** (6 hours)
   - COSC 100/110 Introduction to Computer Science
     - or ART 207 Graphic Design (Tech. Fluency)
   - MCOM 105 Introduction to Mass Communication

### Minor

1. **Communication Studies Core Courses:** (6 hours)
   - All of the following:
     - CMST 102/112 Introduction to Human Communication
     - CMST 451 Seminar in Communication Theory

2. **Communication Studies Electives:** (12 hours)
   - Choose four courses from:
     - CMST 215 Small Group Communication
     - CMST 225 Interviewing
     - CMST 300 Interpersonal Communication
     - CMST 302 Argumentation and Advocacy
     - CMST 312 Language Behavior and Communication
     - CMST 322 Presentational Communication
     - CMST 335 Organizational Communication
     - CMST 345 Conflict Management
     - CMST 350 Intercultural Communication
     - CMST 355 Political Communication
     - CMST 365 Environmental Communication
     - CMST 422 Seminar in Rhetorical Criticism
     - CMST 485 Issues and Responsibilities of Communication

### Associate Professors:
- Kice (Chair), Ruminski
- Lecturers:
- Stern, Willingham

- Only courses in which you earn a grade of C or better may count toward satisfaction of major or minor requirements.
- All grades earned in courses completed for the major in Communication Studies count in determining whether you meet the graduation requirement of a 2.0 cumulative grade point average in the major.
Computer Print Graphics

Emphasis

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>24 hours</th>
</tr>
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<tbody>
<tr>
<td>ART 104</td>
<td>Two-Dimensional Design</td>
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<tr>
<td>ART 207</td>
<td>Graphic Design</td>
</tr>
<tr>
<td>ART 212</td>
<td>Drawing</td>
</tr>
<tr>
<td>ART 307</td>
<td>Computer Graphics</td>
</tr>
<tr>
<td>ART 336</td>
<td>Digital Imaging for the Fine Arts</td>
</tr>
<tr>
<td>ART 407</td>
<td>Advanced Graphic Design: Print (Level I)</td>
</tr>
<tr>
<td>ART 407</td>
<td>Advanced Graphic Design: Print (Level II)</td>
</tr>
<tr>
<td>ART 414</td>
<td>Advanced Graphic Design: Interactive Multimedia Design</td>
</tr>
</tbody>
</table>

College-level proficiency in English is required, as evidenced by a passing score on the English placement exam, completion of ENGL 101 or completion of its equivalent at another institution.
Computer Information Systems

### Major

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Computer Science:</td>
<td>47</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>27-28</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>74-75</td>
</tr>
</tbody>
</table>

#### Summary of Requirements for Major/Minor in Computer Information Systems

**Major**

1. **Core Courses:** (26 hours)
   - COSC 101 The Discipline of Computer Science (Tech. Fluency)
   - COSC 102 Foundations of Computer Science
   - COSC 240 Computer Science I
   - COSC 241 Computer Science II
   - COSC 325 Software Engineering
   - COSC 365 Digital Logic
   - COSC 460 Operating Systems Concepts
   - COSC 489 Computer Science Capstone

2. **Required Advanced Courses:** (15 hours)
   - COSC 300 Structured Systems Analysis and Design
   - COSC 331 Fundamentals of Computer Networks
   - COSC 380 Computer-Based Information Systems
   - COSC 440 Database Management Systems
   - COSC 480 Knowledge-Based Systems

3. **Other Required Courses:**
   - Mathematics (6-7 hours)
     - MATH 220 Calculus for Applications
     - or MATH 236 Calculus I (Core Skill 3)
     - MATH 109/110 Elements of Applied Probability and Statistics (Core Skill 3)
     - or MATH 380 Introduction to Probability and Statistics
   - Other: (12 hours)
     - ACCT 211 Financial Accounting
     - CMST 102 Introduction to Human Communication
     - ENGL 338 Technical Writing (Core Skill 2)
     - MGMT 251 Management of Organizations

4. **Electives:** (6 hours)
   - At least two courses selected from:
     - COSC 305 Computer Ethics
     - COSC 320 Business Programming
     - COSC 335 Advanced Topics in Computer Networks
     - COSC 345 The Internet and Multimedia Communications
     - COSC 350 Low-Level Programming Concepts
     - COSC 390 Topics in Modern Programming Languages
     - COSC 431 Secure Computing
     - COSC 491 Seminar in Computer Science
     - COSC 494 Field Exp. in Computer/Information Science
     - COSC 499 Individual Problems in Computer Science

5. **Electives in Business:** (9 hours)
   - Any three of the following courses
     - BLAW 291 Legal Environment of Business
     - MGMT 355 Operations Management
     - MGMT 356 Leadership and Human Behavior
     - MGMT 357 Human Resource Management
     - MKTG 361 Principles of Marketing

**Minor**

1. **Core Courses** (10 hours)
   - COSC 101 The Discipline of Computer Science (Tech. Fluency)
   - COSC 240 Computer Science I
   - ACCT 211 Financial Accounting

2. **Advanced Courses:** (6 hours)
   - Two of the following
     - COSC 300 Structured System Analysis and Design
     - COSC 305 Computer Ethics
     - COSC 380 Computer-Based Information Systems

3. **Elective in Business:** (3 hours)
   - One of the following
     - BLAW 291 Legal Environment of Business
     - MGMT 355 Operations Management
     - MGMT 356 Leadership and Human Behavior
     - MGMT 357 Human Resource Management
     - MKTG 361 Principles of Marketing

### Professors:
- Chitsaz, Rinard (Chair)
- M. Flinn, Zheng
- Assistant Professors:
  - Pan, Xiao, Xu

### Lecturers:
- Gbenro, S. Kennedy

- Computer science courses must have a grade of C or better to be applied toward major or minor requirements.
- You may receive credit by examination for the following courses: COSC 100, 101, 240, 350.

See related programs:
- COMPUTER SCIENCE
- INFORMATION TECHNOLOGY
Computer Science

Major

<table>
<thead>
<tr>
<th>Minor</th>
<th>MAJOR</th>
<th>FOR NETWORKS</th>
<th>CONCENTRATION</th>
<th>MINOR</th>
</tr>
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<tbody>
<tr>
<td>Hours Required in Computer Science:</td>
<td>50</td>
<td>50</td>
<td></td>
<td>20</td>
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<tr>
<td>Hours Required in Other Departments:</td>
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<tr>
<td>Total Hours Required:</td>
<td>82</td>
<td>82</td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

Mission Statement

The Computer Science & Information Technologies Department’s mission is to present our students with up-to-date curricula and pedagogy in the computer science and information systems disciplines, ensure that they have a solid foundation in the core concepts, equip them with problem solving and decision-making skills, and prepare them for lifelong learning in the discipline. The department provides for and encourages collegial, intellectual, and academic growth of its faculty. The department supports and encourages local and regional technology initiatives contributing to educational and economic advances.

Program Educational Objectives

The Frostburg Computer Science program will graduate computer science professionals who have:

- A solid foundation in core computer science concepts reinforced with mathematics and natural science
- An ability to apply modern computer science concepts and theories to contemporary, real world problems
- An understanding of professional responsibility to evaluate their ethical obligations to society, employers, employees and their peers
- An understanding of the commitment needed to pursue life long goals through educational and professional endeavors

Program Outcomes

The Frostburg Computer Science program will provide students with:

- An ability to apply knowledge of computing and mathematics appropriate to the discipline;
- An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
- An ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs;
- An ability to function effectively on teams to accomplish a common goal;
- An understanding of professional, ethical, legal, security, and social issues and responsibilities;
- An ability to communicate effectively with a range of audiences;
- An ability to analyze the local and global impact of computing on individuals, organizations and society;
- A recognition of the need for, and an ability to engage in, continuing professional development;
- An ability to use current techniques, skills, and tools necessary for computing practices;
- An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices;
- An ability to apply design and development principles in the construction of software systems of varying complexity.

Summary of Requirements for Major/Minor in Computer Science

Major

1. Core Courses: (26 hours)
   - COSC 101 The Discipline of Computer Science (Tech. Fluency)
   - COSC 102 Foundations of Computer Science
   - COSC 240 Computer Science I
   - COSC 241 Computer Science II
   - COSC 325 Software Engineering
   - COSC 365 Digital Logic
   - COSC 460 Operating Systems Concepts
   - COSC 489 Computer Science Capstone

2. Required Advanced Courses: (18 hours)
   - COSC 310 Data Structures & Algorithm Analysis
   - COSC 331 Fundamentals of Computer Networks
   - COSC 350 Low-Level Programming Concepts
   - COSC 450 Programming Language Principles & Paradigms
   - COSC 470 Compiler Design and Implementation
   - COSC 485 Introduction to the Theory of Computation

Minor

1. Core Courses: (11 hours)
   - COSC 101 The Discipline of Computer Science (Tech. Fluency)
   - COSC 240 Computer Science I
   - COSC 241 Computer Science II

2. Electives: (9 hours)
   Three additional computer science courses.
   Two must be at the 300-level or above.

Certificates in

- SOFTWARE DEVELOPMENT
- PROGRAMMING
- NETWORKING

See related programs

- COMPUTER INFORMATION SYSTEMS
- INFORMATION TECHNOLOGY

Professors:
- C. Hinds, Rinard (Chair)

Associate Professors:
- M. Flinn, Zheng

Assistant Professors:
- Pan, Xiao, Xu

Lecturers:
- G. Henro, S. Kennedy

- Computer science courses must have a grade of C or better to be applied towards major or minor requirements.
- You will be de-registered from any computer science course for which you have not earned a C or better in the prerequisite computer science course(s).
- You may receive credit by examination for the following courses: COSC 100, 101, 240, 350.
- The Department of Computer Science & Information Technologies also offers four certificates to students in other majors and community members. (See separate section).
### Major (continued)

#### 3. Other Required Courses:

**Mathematics (14 hours)**
- MATH 236 Calculus I (Core Skill 3)
- MATH 237 Calculus II
- MATH 350 Linear Algebra I
  - or MATH 432 Differential Equations
  - or MATH 435 Numerical Analysis
  - or MATH 437 Combinatorics and Graph Theory
  - or MATH 470 Mathematical Models and Applications
- MATH 380 Introduction to Probability & Statistics

**Science (12 hours):**
Select two courses from the following:
- BIOL 149 General Biology I
- CHEM 201 General Chemistry I
- GEOG 103 Physical Geography
- PHYS 261 Principles of Physics I: Mechanics

AND select one course from the following:
- BIOL 160 General Zoology
- BIOL 161 General Botany
- CHEM 202 General Chemistry II
- PHYS 262 Principles of Physics II: Electricity and Magnetism

**Other (6 hours)**
- CMST 102 Introduction to Human Communication
- ENGL 338 Technical Writing (Core Skill 2)

#### 4. Electives: (6 hours)
A minimum of 6 hours in at least two courses
- COSC 305 Computer Ethics
- COSC 335 Advanced Topics in Computer Networks
- COSC 345 The Internet and Multimedia Communications
- COSC 390 Topics in Modern Programming Languages
- COSC 415 Computer Interfacing
- COSC 420 Robotics and Industrial Computer Applications
- COSC 431 Secure Computing
- COSC 435 Network Implementation and Testing
- COSC 440 Database Management Systems
- COSC 444 Introduction to Distributed Programming
- COSC 445 Network Programming
- COSC 455 Artificial Intelligence
- COSC 465 Computer Systems Architecture
- COSC 475 Interactive Computer Graphics
- COSC 491 Seminar in Computer Science
- COSC 494 Field Exp. in Computer/Information Science
- COSC 499 Individual Problems in Computer Science

### Minor

#### 3. Other Required Courses:

**Mathematics (14 hours)**
- MATH 236 Calculus I (Core Skill 3)
- MATH 237 Calculus II
- MATH 350 Linear Algebra I
  - or MATH 432 Differential Equations
  - or MATH 435 Numerical Analysis
  - or MATH 437 Combinatorics and Graph Theory
  - or MATH 470 Mathematical Models and Applications
- MATH 380 Introduction to Probability & Statistics

### Requirements for Major Concentrating in Networks

#### 1. Core Courses: (26 hours)
- COSC 101 The Discipline of Computer Science (Tech. Fluency)
- COSC 102 Foundations of Computer Science
- COSC 240 Computer Science I
- COSC 241 Computer Science II
- COSC 325 Software Engineering
- COSC 365 Digital Logic
- COSC 460 Operating Systems Concepts
- COSC 489 Computer Science Capstone

#### 2. Required Advanced Courses: (15 hours)
- COSC 331 Fundamentals of Computer Networks
- COSC 335 Advanced Topics in Computer Networks
- COSC 345 The Internet and Multimedia Communications
- COSC 431 Secure Computing
- COSC 435 Network Implementation and Testing

#### 3. Other Required Courses:

**Mathematics (14 hours)**
- MATH 236 Calculus I (Core Skill 3)
- MATH 237 Calculus II
- MATH 350 Linear Algebra I
  - or MATH 432 Differential Equations
  - or MATH 435 Numerical Analysis
  - or MATH 437 Combinatorics and Graph Theory
  - or MATH 470 Mathematical Models and Applications
- MATH 380 Introduction to Probability & Statistics
  - or MATH 109/110 Elements of Applied Probability & Statistics (Core Skill 3)
**COMPUTER SCIENCE**

**Science:** (12 hours):
Select two courses from the following:
- B I O L 149 General Biology I
- C H E M 201 General Chemistry I
- G E O G 103 Physical Geography
- P H Y S 261 Principles of Physics I: Mechanics
And select one course from the following:
- B I O L 160 General Zoology
- B I O L 161 General Botany
- C H E M 202 General Chemistry II
- P H Y S 262 Principles of Physics II: Electricity and Magnetism

**Other:** (6 hours)
- C M S T 102 Introduction to Human Communication
- E N G L 338 Technical Writing (Core Skill 2)

**4. Electives:** (9 hours)
A minimum of 9 hours in at least three courses:
- C O S C 305 Computer Ethics
- C O S C 310 Data Structures and Algorithm Analysis
- C O S C 350 Low-Level Programming Concepts
- C O S C 390 Topics in Modern Programming Languages
- C O S C 444 Introduction to Distributed Programming
- C O S C 445 Network Programming
- C O S C 450 Programming Language Principles & Paradigms
- C O S C 455 Artificial Intelligence
- C O S C 465 Computer Systems Architecture
- C O S C 485 Introduction to the Theory of Computation
- C O S C 491 Seminar in Computer Science
- C O S C 494 Field Exp. in Computer/Information Science
- C O S C 499 Individual Problems in Computer Science

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**Certificates in**
- **SOFTWARE DEVELOPMENT**
- **PROGRAMMING**
- **NETWORKING**

The three computer science certificates offer learning opportunities to a range of students, from computing novices to computing professionals.

Interested students might include:
- Degree-seeking undergraduates in any major who wish to develop computing skills beyond those required in their degree program. The certificate represents a credential that may enhance career opportunities in any field.
- Non-degree-seeking students who wish to develop computing and technical skills to increase opportunities for employment.
- Bachelor's degree holders and professionals in the field looking for career enhancement or change.
- If you are completing the networks concentration in the computer science major you cannot earn the networking certificate.

**Software Development** (14 hours)
- C O S C 101 The Discipline of Computer Science (Tech. Fluency)
- C O S C 240 Computer Science I
- C O S C 241 Computer Science II
- C O S C 325 Software Engineering

**Programming** (14 hours)
- C O S C 101 The Discipline of Computer Science (Tech. Fluency)
- C O S C 240 Computer Science I
- C O S C 241 Computer Science II
And one of the following:
- C O S C 310 Data Structures & Algorithm Analysis
- C O S C 390 Topics in Modern Programming Languages

**Networking** (17 hours)
- C O S C 241 Computer Science II (COSC 240 is prerequisite for COSC 241. Students may test out of COSC 240)
- C O S C 335 Advanced Topics in Computer Networks
- C O S C 365 Digital Logic
- C O S C 435 Network Implementation and Testing
- C O S C 445 Network Programming

- A study of programming fundamentals and software development methods for a student with basic computing skills.
- A study sequence for students with basic computing skills that provides a foundation in computer programming fundamentals and working expertise in an object-oriented programming language.
- A study sequence for students with programming experience wishing to develop expertise in network theory, design, and application. Permission of department chair required.
Cultural Anthropology

Minor

Coordinator:
Kara Rogers-Thomas,
Associate Professor,
Department of Sociology

You cannot major in Cultural Anthropology.

1. Basic Courses: (9 hours)
   - SOCI 100/111 Intro to Sociology (GEP Group D)
   - SOCI 224 Cultural Anthropology (GEP Group F)
   - SOCI 362 Sociology of Religion

2. Distribution of Electives: (9 hours)
   At least 6 of which must be in two different disciplines other than Sociology.
   - AAST 300/HIST 301 Traditional Africa
   - AAST 400 Africans of the Diaspora
   - ART 302 Artistic Traditions: Africa and the Americas
   - BIOL 128 Introduction to Ethnobotany
   - BIOL 484 Field Experiences in Ethnobotany and Ecology

Dance

Minor

Coordinator:
Jamie McGreavy, Coordinator of Dance minor
Nicole Mattis, Chair, Department of Theatre and Dance

You cannot major in Dance.

1. Courses in Dance Technique: (12 hours)
   - DANC 131 Ballet I
   - DANC 154 Jazz I
   - DANC 165 Tap I
   - Select a minimum of 6 credits from among:
     - DANC 231 Ballet II
     - DANC 254 Jazz II
     - DANC 265 Tap II
     - DANC 342 Contemporary Modern
     - DANC 361 Dance for Musical Theatre

2. Courses in Dance Composition and Theory:
   (9 hours)
   - Select a minimum of 6 hours from among:
     - DANC 110 Dance Appreciation (GEP Group A)
     - DANC 255 Dance Company I (3 or 6 hours)
     - DANC 305 Improvisation
     - DANC 309 Composition and Theory

   - DANC 355 Dance Company II (3 hours)
   - DANC 429 Special Topics in Dance (3 or 6 hours)

3. Required Courses in Other Disciplines:
   Select a minimum of 2-3 hours from among:
   - HEED 200 Nutrition
   - MUSC 100 Introduction to Music Theory
   - THEA 110 Introduction to Acting
   - THEA 210 Voice and Movement
   - THEA 306 Stage Lighting

Summary of Requirements for Minor in Cultural Anthropology

- Major
- Minor
- Hours Required in Sociology: 9-12
- Hours Required in Other Departments: 6-9
- Total Hours Required: 18

Summary of Requirements for Minor in Dance

- Minor
- hours Required in Dance: 21
- Hours Required in Other Disciplines: 2-3
- Total Hours Required: 23-24
Earth Science

Major

Concentration in
- ENVIRONMENTAL SCIENCE

Contact:
Fritz Kessler, Chair,
Department of Geography

Participating Faculty:
Professors:
Caupp, Kessler, Precht (Geography)

Associate Professors:
Allen (Geography), Crawford
(Chemistry), Doyle (Physics),
Norris (Chemistry), Pegg (Biology),
Ramsperger (Geography)

Assistant Professor:
Bogart (Geography)

- This is a multidisciplinary program administered by the Department of Geography.
- An optional internship is available in Earth Science.
- You may pursue Earth Science secondary teacher certification. Contact the coordinator of the Secondary Teacher Educational Program.
- There is no minor in Earth Science.

Summary of Requirements for Major in Earth Science

1. Required Core Courses: (21 hours)
   GEOG 103/113 Physical Geography (GEP Group C)
   GEOG 207 Physical Geology and Geomorphology
   GEOG 208 Earth Systems History
   GEOG 275 Fund. of Geographic Data Handling (Tech. Fluency)
   MATH 109 Elements of Applied Probability and Statistics
     (Core Skill 3)
   GEOG 380 Research Methods in Geography

2. Required Supporting Science Sequence (8 hours)
   Complete one of the following science sequences:
   CHEM 201/202 General Chemistry I & II (GEP Group C)
   PHY 215/216 General Physics I & II (GEP Group C)
   PHY 261/262 Principles of Physics I & II (GEP Group C)
   ENES 102 Statics/220 Mechanics of Materials

3. Advanced Electives (9-10 hours)
   Complete three of the following courses:
   GEOG 340 Soils: Genesis, Nature and Characteristics
   GEOG 406 Management and Conservation of Natural Resources
   GEOG 430 Surface Water Hydrology
   or GEOG 335 Oceanography
   GEOG 431 Quaternary Environments
   or GEOG 441 Soil Analysis
   GEOG 445 Biogeography
   GEOG 460 Natural Hazards in the Physical Environment
   GEOG 476 Fluvial/Coastal Geomorphology
   or GEOG 475 Glacial/Periglacial Geomorphology
   CHEM 420 Environmental Chemical Analysis
   or CHEM 320 Quantitative Analytical Chemistry
   or CHEM 460 Environmental Chemistry

4. Technique Courses (3 hours)
   Complete one of the following courses:
   GEOG 310 Fundamentals of Cartography
   GEOG 317 Principles of Geographic Information Science
   GEOG 413 Remote Sensing – Image Interpretation
   GEOG 433 Surveying and Field Techniques

5. Additional Mathematics Course (3-4 hours)
   Complete one of the following courses:
   MATH 119 College Algebra (Core Skill 3)
   MATH 220 Calculus for Applications I
   MATH 236 Calculus I (Core Skill 3)
   MATH 237 Calculus II

6. Senior Requirement (6 hours)
   Complete one of the following options:
   A. Research Option
      GEOG 482 Senior Project (I)
      GEOG 483 Senior Project (II)
   B. Technical Option
      Take one additional course from Advanced Electives and one from Technique Courses.

7. Capstone Experience (1 hour)
   GEOG 486 Earth Science Capstone

Summary of Requirements for Double Major in Secondary Teacher Education

If you wish to complete a Maryland State-approved program in teaching secondary earth & space science, you must:
- Complete the BS in Earth Science.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- In addition to the regular major requirements, you must take coursework in biology, chemistry, and physics in order to qualify for Maryland State certification in science and to meet NCATE accreditation standards. See the Secondary Teacher Education Program Coordinator for details.
The Environmental Science concentration is dedicated to the study of the relationships between humans and their environments.

You will become sensitive, articulate, and knowledgeable about increasingly complex environmental issues facing contemporary society.

Course work in this concentration will provide the theoretical and practical background as well as the skills necessary to study environmental science from a wide range of perspectives.

You must meet certain criteria and deadlines prior to enrollment in either GEOG 488 or GEOG 492.

You must select 2 other members for your advisory committee in addition to your advisor from the faculty in participating departments. At least 1 member of the committee must be from Geography.

The Environmental Science concentration is dedicated to the study of the relationships between humans and their environments.

You will become sensitive, articulate, and knowledgeable about increasingly complex environmental issues facing contemporary society.

Course work in this concentration will provide the theoretical and practical background as well as the skills necessary to study environmental science from a wide range of perspectives.

You must meet certain criteria and deadlines prior to enrollment in either GEOG 488 or GEOG 492.

You must select 2 other members for your advisory committee in addition to your advisor from the faculty in participating departments. At least 1 member of the committee must be from Geography.

**Summary of Requirements for Environmental Science Concentration in Earth Science**

1. **Introductory Level Courses:** (16 hours)
   
   GEOG 103/113  Physical Geography (GEP Group C)
   
   GEOG 104/114  Human Geography (GEP Group D or F)
   
   or GEOG 110 World Regional Geography: Cultural Diversity (GEP Group D or F)
   
   GEOG 275  Fundamentals of Geographic Data Handling (Tech. Fluency)
   
   MATH 109  Elements of Probability and Statistics (Core Skill 3)
   
   MATH 119  College Algebra (Core Skill 3)

2. **Required Advanced Courses:** (15 hours)
   
   GEOG 380  Research Methods in Geography
   
   GEOG 406  Management and Conservation of Natural Resources
   
   GEOG 445  Biogeography
   
   GEOG 472  Environmental Planning or GEOG 473 Environmental Law
   
   GEOG 486  Earth Science Capstone
   
   GEOG 488  Environmental Practicum or GEOG 492 Internship: Research in Geography*
   
   *requires co-registration in GEOG 495

3. **Required Supporting Science Sequence:** (16 hours)
   
   BIOL 149  General Biology I (GEP Group C)
   
   BIOL 160  General Zoology
   
   or BIOL 161 General Botany
   
   CHEM 201  General Chemistry I (GEP Group C)
   
   CHEM 202  General Chemistry II

4. **Electives:** (24-25 hours)
   
   Select two courses in each group:**

   **GROUP I Advanced Biology**
   
   BIOL 314  Plant Taxonomy or BIOL 305 Dendrology
   
   BIOL 340  General Ecology
   
   BIOL 406  Ornithology
   
   BIOL 421  Sample Design and Analysis of Plant Communities
   
   BIOL 422  Herpetology
   
   BIOL 423  Mammalogy
   
   BIOL 430  Introductory Limnology

   **GROUP II Advanced Techniques**
   
   GEOG 310  Fundamentals of Cartography
   
   GEOG 317  Principles of Geographic Information Science
   
   GEOG 413  Remote Sensing - Image Interpretation
   
   GEOG 420  Topics in the Mapping and Geospatial Sciences
   
   GEOG 433  Surveying and Field Techniques

   **GROUP III Advanced Physical Geography**
   
   GEOG 335  Oceanography
   
   GEOG 340  Soil: Genesis, Nature and Characterization
   
   GEOG 405  Global Climate System
   
   GEOG 430  Surface Water Hydrology
   
   GEOG 431  Quaternary Environments
   
   GEOG 432  Groundwater Hydrology
   
   GEOG 460  Natural Hazards in the Physical Environment

   **GROUP IV Advanced Human Systems**
   
   Take two of the following from two different disciplines:
   
   ECON 410  Resource and Environmental Economics
   
   ENGL 440  Literature of the Environment
   
   GEOG 300  Economic Geography
   
   GEOG 407  Political Geography
   
   GEOG 410  Locational Analysis
   
   HIST 409  World Environmental History
   
   PHIL 315  Philosophy and the Environment
   
   POSC 450  Environmental Public Policy

**some of these courses may require additional prerequisite course work.**
Engineering

Major

Professors:
Deng-Luzader, J. Hoffman, G. Latta, Plitnik, O. Soysal, Wang

Associate Professors:
Doyle, Eltayeb, E. Moore (Chair), Tidrow

Assistant Professors:
Norouzi, Speights, Wondmagegn

Mission Statement
The mission of the FSU Engineering Program is to provide excellent undergraduate education in engineering; to establish close partnership with and provide technical knowledge to industry, government and local business; to contribute to economic development within the state of Maryland, specifically in the Western Maryland region; and to provide related services to the campus community and community at large.

Program Educational Objectives
Within the first few years following graduation, alumni of the Engineering BS program will demonstrate:

- **Broad knowledge** of mathematics, physical science and engineering science with emphasis in selected concentration areas of engineering to be successful in government, industry, private companies and interdisciplinary graduate programs
- **Professional skills** to function in multidisciplinary teams, use modern instruments, computers and engineering software to solve engineering problems, perform research and participate in design projects
- **An understanding of professional responsibility** to evaluate their ethical obligations to society, employers, employees and peers
- **Motivation for lifelong learning** to update their technical knowledge and understanding of societal and contemporary issues

Program Outcomes
Students will acquire the knowledge and skills needed to demonstrate the learning outcomes assessed throughout the curriculum. When students graduate, they will be able to:

a. Apply knowledge of mathematics, science and engineering
b. Design and conduct experiments, as well as analyze and interpret data
c. Design a system, component or process to meet desired needs
d. Function on multidisciplinary teams
e. Identify, formulate and solve engineering problems
f. Demonstrate an understanding of professional and ethical responsibility
g. Communicate effectively
h. Demonstrate the broad education necessary to understand the impact of engineering solutions in a global and societal context
i. Recognize the need for, and engage in, lifelong learning
j. Demonstrate a knowledge of contemporary issues in engineering
k. Use the techniques, skills and modern engineering tools necessary for engineering practice

Summary of Requirements for Major in Engineering

<table>
<thead>
<tr>
<th>CONCENTRATIONS</th>
<th>ELECTRICAL</th>
<th>MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Engineering:</td>
<td>53-56</td>
<td>55-56</td>
</tr>
<tr>
<td>Hours Required in Other Disciplines:</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>88-91</td>
<td>90-91</td>
</tr>
</tbody>
</table>

B.S. in Engineering at AACC and Cecil College

The B.S. in Engineering is also offered at the Anne Arundel Community College Regional Higher Education Center at Arundel Mills in collaboration with AACC (electrical engineering) and at Cecil College (materials engineering). Students with an associate degree in engineering may complete the bachelor’s degree through onsite, interactive video, and online courses offered at these sites. See pages 110-111.

1. Core Courses (56-57 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 201</td>
<td>General Chemistry I (GEP Group C)</td>
</tr>
<tr>
<td>ENEE 114</td>
<td>Programming Concepts for Engineers</td>
</tr>
<tr>
<td>ENEE 408</td>
<td>Capstone Design Project</td>
</tr>
<tr>
<td>ENES 100</td>
<td>Introduction to Engineering Design</td>
</tr>
<tr>
<td>ENES 491</td>
<td>Engineering Seminar</td>
</tr>
<tr>
<td>ENME 350</td>
<td>Electronics and Instrumentation I</td>
</tr>
<tr>
<td>ENME 351</td>
<td>Electronics and Instrumentation II</td>
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<tr>
<td>MATH 236</td>
<td>Calculus I (Core Skill 3)*</td>
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<tr>
<td>MATH 237</td>
<td>Calculus II*</td>
</tr>
<tr>
<td>MATH 238</td>
<td>Calculus III*</td>
</tr>
<tr>
<td>MATH 432</td>
<td>Differential Equations*</td>
</tr>
<tr>
<td>PHYS 261</td>
<td>Principles of Physics I – Mechanics (GEP Group C)*</td>
</tr>
<tr>
<td>PHYS 262</td>
<td>Principles of Physics II – E&amp;M*</td>
</tr>
<tr>
<td>PHYS 263</td>
<td>Principles of Physics III – Acoustics and Optics*</td>
</tr>
<tr>
<td>PHYS 264</td>
<td>Principles of Physics IV – Thermo. and Mod. Phys.*</td>
</tr>
</tbody>
</table>

*All majors must earn a C or better in MATH 236, MATH 237, MATH 238, MATH 432, PHYS 261, PHYS 262, PHYS 263 and PHYS 264.
2. Area of Concentration (32-35 hours)
Majors must choose to concentrate in one of the following areas:

**Electrical Engineering (32-35 hours)**
- ENEE 204  Basic Circuit Theory
- ENEE 206  Fund. Digital and Electric Circuits Lab
- ENEE 244  Digital Logic Design
- ENEE 303  Analog and Digital Electronics
- ENEE 307  Electronic Circuits Lab
- ENEE 350  Computer Organization
- ENEE 380  Electromagnetic Theory
- ENES 310  Mechatronic and Robotic Design
- ENEE 439  Topics in Signal Processing
- ENEE 475  Power Electronics

Two electives from any 300- or 400-level ENEE, ENES or ENME course or CHEM 304

**Materials Engineering (34 hours)**
- ENES 102  Statics
- ENES 220  Mechanics of Materials
- ENES 221  Dynamics
- ENME 232  Thermodynamics
- ENME 331  Fluid Mechanics
- ENME 332  Transfer Processes
- ENME 362  Engineering Materials and Manufacturing
- ENME 405  Fundamentals of Materials Engineering
- ENME 425  Microfabrication

Two electives from any 300- or 400-level ENEE, ENES, or ENME course or CHEM 304
Engineering

Program Educational Objectives
Within the first few years following graduation, alumni of the Engineering BS program will:
1. Meet regional workforce needs in engineering
2. Integrate effective workforce skills, best practices and ethical principles
3. Work effectively in multidisciplinary teams and communicate ideas orally and in writing
4. Demonstrate motivation for lifelong learning for personal enrichment and to achieve professional success

Program Outcomes
Students will acquire the knowledge and skills needed to demonstrate the learning outcomes assessed throughout the curriculum.
When students graduate, they will be able to:
a. Apply knowledge of mathematics, science and engineering
b. Design and conduct experiments, as well as analyze and interpret data
c. Design a system, component or process to meet desired needs
d. Function on multidisciplinary teams
e. Identify, formulate and solve engineering problems
f. Demonstrate an understanding of professional and ethical responsibility
g. Communicate effectively
h. Demonstrate the broad education necessary to understand the impact of engineering solutions in a global and societal context
i. Recognize the need for, and engage in, lifelong learning
j. Demonstrate knowledge of contemporary issues in engineering
k. Use the techniques, skills and modern engineering tools necessary for engineering practice

Program Requirements
To earn the Bachelor of Science in Engineering from FSU, students must complete a total of 120 credit hours of coursework.

About the Program
- Accessible
- Earn your B.S. degree close to home
- Affordable
- FSU has one of the lowest tuition rates in the state of Maryland
- Transfer-friendly
- Credits taken at community college applied toward the B.S. degree
- FSU offers a Bachelor of Science in Engineering degree with an electrical engineering concentration at Anne Arundel Community College at Arundel Mills Regional Higher Education Center.
- This program is designed to meet the needs of modern industry and is open to community college graduates who have completed an A.S. or A.S.E. degree in Engineering.
- FSU offers courses on site and via distance learning for students at the Arundel Mills Center to complete the Bachelor of Science requirements.

Courses at FSU (50 hours)

- **IDS 150** First-Year FSU Colloquium
- **ENEE 303** Analog and Digital Electronics
- **ENEE 307** Electronic Circuits Lab
- **ENEE 350** Computer Organization
- **ENEE 380** Electromagnetic Theory
- **ENEE 408** Capstone Design Project
- **ENEE 439** Topics in Signal Processing
- **ENEE 475** Power Electronics
- **ENES 310** Mechatronic and Robotic Design
- **ENES 401** Fundamentals of Energy Engineering
- **ENES 491** Seminar
- **ENGL 338** Technical Writing
- **ENME 350** Electronics and Instrumentation I
- **ENME 351** Electronics and Instrumentation II
- Two electives from any 300- or 400-level ENEE, ENES or ENME course. Any courses offered at FSU to meet credit requirements.
Engineering

Engineering BS at Cecil College

Total Hours Required at FSU: 55

Program Educational Objectives

Within the first few years following graduation, alumni of the Engineering BS program will:

1. Meet regional workforce needs in engineering
2. Integrate effective workforce skills, best practices and ethical principles
3. Work effectively in multidisciplinary teams and communicate ideas orally and in writing
4. Demonstrate motivation for lifelong learning for personal enrichment and to achieve professional success

Program Outcomes

Students will acquire the knowledge and skills needed to demonstrate the learning outcomes assessed throughout the curriculum.

When students graduate, they will be able to:

a. Apply knowledge of mathematics, science and engineering
b. Design and conduct experiments, as well as analyze and interpret data
c. Design a system, component or process to meet desired needs
d. Function on multidisciplinary teams
e. Identify, formulate and solve engineering problems
f. Demonstrate an understanding of professional and ethical responsibility
g. Communicate effectively
h. Demonstrate the broad education necessary to understand the impact of engineering solutions in a global and societal context
i. Recognize the need for, and engage in, lifelong learning
j. Demonstrate knowledge of contemporary issues in engineering
k. Use the techniques, skills and modern engineering tools necessary for engineering practice

Program Requirements

To earn the Bachelor of Science in Engineering from FSU, students must complete a total of 120 credit hours of coursework.

Students entering this program must have an associate degree in engineering from a community college and are expected to have completed:

1. 30 credits of general education, to include Freshman Composition, 6 credits in arts and humanities and 6 credits in social sciences
2. Calculus 1, 2 and 3 and Differential Equations
3. Calculus-based physics sequence
4. General Chemistry
5. Engineering coursework, to include Introduction to Engineering Design, Statics, Mechanics of Materials, Dynamics and Thermodynamics

All majors must earn a C or better in the following prerequisite courses for the major requirements at FSU: MATH 236, MATH 237, MATH 238, MATH 432, PHYS 261, PHYS 262, PHYS 263 and PHYS 264.

FSU Courses

(55 hours)

Arts and Humanities GEP course*

IDIS 150 First-Year FSU Colloquium
300- to 400-level Identity and Difference GEP course
ENGL 338 Technical Writing
ENME 331 Fluid Mechanics
ENME 332 Transfer Processes
ENME 350 Electronics and Instrumentation I
ENME 351 Electronics and Instrumentation II
ENME 382 Engineering Materials and Manufacturing
ENME 405 Fundamentals of Materials Engineering
ENME 425 Microfabrication
ENES 401 Fundamentals of Energy Engineering
ENES 491 Seminar
ENEE 408 Capstone Design Project

Three electives from any 300-400 level ENES, ENEE, or ENME course and one additional elective (any)

*For students transferring from Cecil College: Students at FSU are required to have 3 credits in arts and 6 credits in humanities. Since Cecil College requires only 3 credits in arts and humanities (plus EGL 102, which counts as 6 credits of humanities), students will need to complete an additional course in the category in which they are deficient once admitted to FSU.
### Mechanical Engineering

#### Collaborative Program

**Major**

<table>
<thead>
<tr>
<th>Major</th>
<th>MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Engineering:</td>
<td>68</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>44</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>112*</td>
</tr>
</tbody>
</table>

*Note: A minimum of 120 credits and satisfactory completion of all department, college and university requirements must be satisfied to earn a degree from UMCP.*

#### Mission Statement

The mission of the FSU Collaborative Mechanical Engineering Program is to provide excellent undergraduate education in mechanical engineering; to establish close partnership with and provide technical knowledge to industry, government and local business; to contribute to economic development within the state of Maryland, specifically in the Western Maryland region; and to provide related services to the campus community and community at large.

#### Program Educational Objectives

The Frostburg Collaborative Mechanical Engineering Program will graduate engineers who have:

1. Broad knowledge of mathematics, physical science and engineering science with emphasis in selected specialization areas of mechanical engineering to be successful in government, industry, private companies and graduate schools
2. Professional skills to function in multidisciplinary teams, use modern engineering tools and computer software, solve engineering problems, engage in design work or research and communicate with professionals
3. An understanding of professional responsibility to evaluate their ethical obligations to society, employers, employees and their peers
4. Motivation for lifelong learning to update their technical knowledge and understanding of societal and contemporary issues

#### Program Outcomes

The students of the Mechanical Engineering Collaborative Program will demonstrate throughout the curriculum:

a. An ability to apply knowledge of mathematics, science and engineering
b. An ability to design and conduct experiments, as well as to analyze and interpret data
c. An ability to design a system, component or process to meet desired needs
d. An ability to function on multidisciplinary teams
e. An ability to identify, formulate and solve engineering problems
f. An understanding of professional and ethical responsibility
g. An ability to communicate effectively
h. The broad education necessary to understand the impact of mechanical engineering solutions in a global and societal context
i. A recognition of the need for and an ability to engage in lifelong learning
j. A knowledge of contemporary issues in mechanical engineering
k. An ability to use the techniques, skills and modern engineering tools necessary for mechanical engineering practice

#### Summary of UMCP’s General Education Program Requirements

The University of Maryland will accept completion of FSU’s General Education Program. Minimum of 40 credit hours required

#### Summary of Pre-Engineering Requirements

1. **Engineering Science Courses** (12 hours)
   - ENES 100 Introduction to Engineering Design
   - ENES 102 Statics
   - ENES 220 Mechanics of Materials
   - ENES 221 Dynamics

2. **Required Courses in Other Departments** (44 hours)
   - CHEM 133 General Chemistry for Engineers (preferred)
     or CHEM 202 General Chemistry II
   - CHEM 201 General Chemistry I (Meets GEP requirement)
   - ENGL 101 Freshman Composition (Meets GEP requirement)
   - ENGL 339 Scientific Writing
     or ENGL 338 Technical Writing (Meets GEP requirement)
   - MATH 236 Calculus I (Meets GEP requirement)
   - MATH 237 Calculus II

#### Coordinator:

Mohammed El Tatyeb, Department of Physics and Engineering

- A collaborative program between Frostburg State University and the University of Maryland, College Park, which allows students to remain on the Frostburg campus for four years while receiving a B.S. degree in mechanical engineering from UMCP.
- This program is accredited by the Accreditation Board for Engineering and Technology (ABET).
- The degree awarded to students completing the program is a B.S. from UMCP. Therefore, students enrolled in the collaborative program must complete UMCP’s general education program requirements.
- During the freshman and sophomore years, you will be enrolled as a pre-engineering major. You will complete general education and engineering science courses taught by faculty on-site at FSU. FSU tuition rates will apply.
- After completing 45 credits of designated course work, you must apply for admission to College Park’s Clark School of Engineering. After meeting UMCP’s admissions standards, you will be accepted into the second half of the program as an engineering major. UMCP’s tuition rates will apply for this part of the program. You must reapply for financial aid and scholarships through UMCP.
- Upper-level engineering courses will be delivered over interactive video from College Park to FSU. All laboratory and design courses will be taught by FSU faculty.
- To be granted advanced placement credit for a course, you must meet UMCP’s minimum requirements. These differ from FSU’s standards, with a higher score required by UMCP in a number of areas. Please consult the Engineering Coordinator to verify AP scores required to receive credit.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 238</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MATH 432</td>
<td>Differential Equations</td>
</tr>
<tr>
<td>PHYS 261</td>
<td>Principles of Physics I: Mechanics <em>(Meets GEP requirement)</em></td>
</tr>
<tr>
<td>PHYS 262</td>
<td>Principles of Physics II: Electricity and Magnetism</td>
</tr>
<tr>
<td>PHYS 263</td>
<td>Principles of Physics III: Sound and Light</td>
</tr>
<tr>
<td>PHYS 264</td>
<td>Principles of Physics IV: Thermodynamics and Modern Physics</td>
</tr>
</tbody>
</table>

**Summary of Engineering Requirements**

1. **Required Engineering Courses** *(41 hours)*

   - ENME 232 Thermodynamics
   - ENME 271 Numerical Methods in Mechanical Engineering *(will satisfy MATH 206)*
   - ENME 272 Introduction to Computer-Aided Design
   - ENME 331 Fluid Mechanics
   - ENME 332 Transfer Processes
   - ENME 350 Electronics and Instrumentation I
   - ENME 351 Electronics and Instrumentation II
   - ENME 361 Vibration, Controls and Optimization I
   - ENME 371 Product Engineering and Manufacturing
   - ENME 382 Engineering Materials and Manufacturing Processes
   - ENME 392 Statistical Methods for Product and Process Development
   - ENME 400 Machine Design
   - ENME 462 Vibration, Controls and Optimization II
   - ENME 472 Integrated Product and Process Development *(Capstone)*

2. **Elective Hours in Department** *(15 hours)*
**English**

**Major**

**Minor**

**Concentrations in:**
- LITERATURE
- CREATIVE WRITING
- PROFESSIONAL WRITING

**Professors:**
Barkley, Dolly, Idris, Kehrwald, Lutz, R. F. Smith, Snelson

**Associate Professors:**
Armiento, R. Brewer, A. Duncan, S. Duncan (Chair), Ewers, LaFemina

**Assistant Professors:**
Armfield, Anastasia, Knott, Morris, Raucci

The department also coordinates minors in film studies, journalism and public relations.

Emphases in professional writing and in the teaching of writing are offered.

ENGL 101, 111, 150, 215, 221, 250, 308, 309, 310, and 312 do not count toward major or minor.

---

**Summary of Requirements for Major/Minor in English**

<table>
<thead>
<tr>
<th></th>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hours Required in English:</strong></td>
<td>40</td>
<td>24</td>
</tr>
<tr>
<td><strong>Hours Required in Other Departments:</strong></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Hours Required:</strong></td>
<td>40</td>
<td>24</td>
</tr>
</tbody>
</table>

**Requirements for Literature Concentration**

1. **Major Core Curriculum (15 hours)**
   - ENGL 260 British Literature: Beowulf to Present*
   - ENGL 261 American Literature: Colonial to Present*
   - ENGL 270 European and Neo-European Literature*
     or ENGL 271 Asian and African Literature*
   - ENGL 300 Critical Writing About Literature* (Core Skill 2)
   - ENGL 306 Introduction to English Linguistics *†
     or ENGL 416 History of the English Language *†
   
   * Must have a C or better to count toward major.
   † If you wish to obtain teaching certification, you must take ENGL 306 to fulfill the Major Core Curriculum.

2. **Concentration Core Requirements (7 hours)**
   - ENGL 340 Shakespeare
   - ENGL 471 Seminar in Critical Theory
   - ENGL 489 English Capstone

3. **Period Courses (9 hours)**
   - Take one of the following:
     - ENGL 371 Literature of the Middle Ages
     - ENGL 372 Early Modern Literature
     - ENGL 373 Literature of the Enlightenment
   - Take one of the following:
     - ENGL 374 Literature of the Age of Revolution
     - ENGL 375 Romanticism
     - ENGL 376 Realism and Naturalism
   - Take one of the following:
     - ENGL 377 Modernism
     - ENGL 378 Postmodernism
     - ENGL 379 Postcolonial Literature

4. **Specialization Course (3 hours)**
   - Take one of the following:
     - ENGL 421 Jane Austen in Literature and Film
     - ENGL 431 World Drama I
     - ENGL 432 World Drama II
     - ENGL 440 Literature of the Environment
     - ENGL 450 Women and Literature
     - ENGL 490 Selected Topics in English

5. **Electives (6 hours)**
   - Students may count a maximum of 6 hours of writing courses beyond ENGL 300 Critical Writing About Literature. Students may count one 200-level course.
Requirements for Creative Writing Concentration

1. Major Core Curriculum: (15 hours – listed above)

2. Concentration Requirements: (22 hours)
   - ENGL 334 Creative Writing: Fiction
   - ENGL 335 Creative Writing: Poetry
   - ENGL 377 Modernism
     or ENGL 378 Post Modernism
   - ENGL 460 Form and Theory of Fiction and Poetry
   - ENGL 470 Senior Workshop
   - ENGL 489 English Capstone
   - Six hours from the following:
     - ENGL 360 Creative Nonfiction
     - ENGL 434 Advanced Fiction Writing
     - ENGL 435 Advanced Poetry Writing

3. Elective: (3 hours)
   - English course (300/400 level)

Requirements for Professional Writing Concentration

1. Major Core Curriculum (15 hours – listed above)

2. Concentration Requirements: (25 hours)
   - ENGL 330 Business Writing
     or ENGL 338 Technical Writing
   - ENGL 336 Journalistic Writing
   - ENGL 355 Socially Networked Journalism
   - ENGL 360 Creative Nonfiction
   - ENGL 402 Editing and Production
   - ENGL 430 The Composing Processes
   - ENGL 436 Advanced News and Feature Writing
   - ENGL 438 Applied Digital Writing
   - ENGL 489 English Capstone

Requirements for Certification in Teaching Secondary English

1. Major Core Curriculum (15 hours – listed above)

2. Certification Requirements: (34 hours)
   Students must complete the requirements for the Literature Concentration (25 credits). In addition, they must complete the following requirements (9 credits):
   - ENGL 276 Adolescent Literature
   - ENGL 416 History of the English Language
   - ENGL 430 The Composing Processes
   - Highly recommended: Either ENGL 336 Journalistic Writing or ENGL 491 Practicum in the Teaching of Writing.

Summary of Requirements for Certification in Teaching Secondary English

If you wish to complete a Maryland State-approved program in teaching English, you must:
- Complete the BA/BS in English: Literature Concentration.
- Take some additional coursework in English to qualify for Maryland State certification and to meet NCATE accreditation standards: ENGL 276, ENGL 416 and ENGL 430.
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- Complete the professional education sequence described in Education: Secondary Programs.

If you wish to pursue certification for teaching at the secondary level, through a Master of Arts in Teaching degree, you should complete the undergraduate English major and then the Master of Arts in Teaching program. In the English major, you should choose the Literature Concentration. In addition, you must complete the following courses:
   - ENGL 276 Adolescent Literature
   - ENGL 306 Introduction to English Linguistics
   - ENGL 416 History of the English Language
   - ENGL 430 The Composing Processes

If the courses listed above are not completed on the undergraduate level, candidates for the Master of Arts in Teaching program may be required to take additional coursework to meet content standards. It is highly recommended that candidates take ENGL 491 Practicum in the Teaching of Writing.
Professional Writing

**Emphasis**

Coordinator: Sydney Duncan, Associate Professor, Department of English

- To be eligible for an emphasis, you must achieve at least a C in each writing course applied to emphasis.
- If you are majoring in English with a concentration in professional writing, you are not eligible for the emphasis.
- You cannot major in Professional Writing.

The emphasis in professional writing is open to degree-seeking students in any major and non-degree seeking members of the community who would like to strengthen writing skills.

Non-degree-seeking students must provide evidence of successful completion of no fewer than 42 college-level credits, including a freshman English course, passed with a grade of C or better.

**Summary of Requirements for Emphasis in Professional Writing**

Select 12 hours from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 330</td>
<td>Business Writing</td>
</tr>
<tr>
<td>ENGL 336</td>
<td>Journalistic Writing</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>ENGL 339</td>
<td>Scientific Writing</td>
</tr>
<tr>
<td>ENGL 355</td>
<td>Socially Networked Journalism</td>
</tr>
<tr>
<td>ENGL 402</td>
<td>Editing and Production</td>
</tr>
<tr>
<td>ENGL 436</td>
<td>Advanced News and Feature Writing</td>
</tr>
<tr>
<td>ENGL 430</td>
<td>The Composing Processes</td>
</tr>
<tr>
<td>ENGL 438</td>
<td>Applied Digital Writing</td>
</tr>
</tbody>
</table>

**EMPHASIS**

<table>
<thead>
<tr>
<th>Hours Required in English:</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Other Departments:</td>
<td>0</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>12</td>
</tr>
</tbody>
</table>

Teaching of Writing

**Emphasis**

Coordinator: Rochelle Smith, Professor, Department of English

- The Emphasis in the Teaching of Writing is open to degree-seeking students in any major.
- To be eligible to complete the emphasis, students must achieve at least a C in each applied course.

**Summary of Requirements for Emphasis in the Teaching of Writing**

1. Select 3 hours from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 300</td>
<td>Critical Writing About Literature</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>Social Sciences Advanced Composition</td>
</tr>
<tr>
<td>ENGL 309</td>
<td>Advanced Composition: Humanities</td>
</tr>
<tr>
<td>ENGL 310</td>
<td>General Advanced Composition</td>
</tr>
<tr>
<td>ENGL 312</td>
<td>Honors: Advanced Composition</td>
</tr>
<tr>
<td>ENGL 330</td>
<td>Business Writing</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>ENGL 339</td>
<td>Scientific Writing</td>
</tr>
<tr>
<td>ENGL 306</td>
<td>Linguistics</td>
</tr>
<tr>
<td>ENGL 416</td>
<td>History of the English Language</td>
</tr>
<tr>
<td>ENGL 430</td>
<td>Composing Processes</td>
</tr>
</tbody>
</table>

2. 6 hours of ENGL 491 Practicum in the Teaching of Writing

3. Select 3 hours from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 300</td>
<td>Critical Writing About Literature</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>Social Sciences Advanced Composition</td>
</tr>
<tr>
<td>ENGL 309</td>
<td>Advanced Composition: Humanities</td>
</tr>
<tr>
<td>ENGL 310</td>
<td>General Advanced Composition</td>
</tr>
<tr>
<td>ENGL 312</td>
<td>Honors: Advanced Composition</td>
</tr>
<tr>
<td>ENGL 330</td>
<td>Business Writing</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>ENGL 339</td>
<td>Scientific Writing</td>
</tr>
</tbody>
</table>
Environmental Analysis & Planning

Major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 149</td>
<td>General Biology I (GEP Group C)</td>
</tr>
<tr>
<td>BIOL 160</td>
<td>General Zoology</td>
</tr>
<tr>
<td>BIOL 161</td>
<td>General Botany</td>
</tr>
<tr>
<td>BIOL 314</td>
<td>Plant Taxonomy</td>
</tr>
<tr>
<td>BIOL 340</td>
<td>General Ecology</td>
</tr>
</tbody>
</table>

Take 2 of 4 courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 303</td>
<td>Plant Physiology</td>
</tr>
<tr>
<td>BIOL 304</td>
<td>Microbiology</td>
</tr>
<tr>
<td>BIOL 421</td>
<td>Sample Design and Analysis of Plant Communities</td>
</tr>
<tr>
<td>BIOL 430</td>
<td>Limnology</td>
</tr>
</tbody>
</table>

* GEOG 445, Biogeography, may be substituted for one of the BIOL electives.

2. Courses in Geography: (46-47 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 103/113</td>
<td>Physical Geography (GEP Group C)</td>
</tr>
<tr>
<td>GEOG 207</td>
<td>Physical Geography and Geomorphology</td>
</tr>
<tr>
<td>GEOG 275</td>
<td>Fundamentals of Geographic Data Handling (Tech. Fluency)</td>
</tr>
<tr>
<td>GEOG 310</td>
<td>Fundamentals of Cartography</td>
</tr>
<tr>
<td>GEOG 340</td>
<td>Soil: Genesis, Nature and Characterization</td>
</tr>
<tr>
<td>GEOG 413</td>
<td>Remote Sensing - Image Interpretation</td>
</tr>
<tr>
<td>GEOG 430</td>
<td>Surface Water Hydrology</td>
</tr>
<tr>
<td>GEOG 470</td>
<td>Soil &amp; Water Engineering</td>
</tr>
<tr>
<td>GEOG 472</td>
<td>Environmental Planning (Capstone)</td>
</tr>
<tr>
<td>GEOG 473</td>
<td>Environmental Law</td>
</tr>
</tbody>
</table>

Take four of 10 courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 208</td>
<td>Earth System History</td>
</tr>
<tr>
<td>GEOG 317</td>
<td>Principles of Geographic Information Science</td>
</tr>
<tr>
<td>GEOG 420</td>
<td>Topics in the Mapping and Geospatial Sciences</td>
</tr>
<tr>
<td>GEOG 431</td>
<td>Quaternary Environments</td>
</tr>
<tr>
<td>GEOG 432</td>
<td>Groundwater Hydrology</td>
</tr>
<tr>
<td>GEOG 433</td>
<td>Surveying and Field Techniques</td>
</tr>
<tr>
<td>GEOG 441</td>
<td>Soil Analysis</td>
</tr>
<tr>
<td>GEOG 471</td>
<td>Engineering for Land Development</td>
</tr>
<tr>
<td>GEOG 475</td>
<td>Glacial/Periglacial Geomorphology</td>
</tr>
<tr>
<td>GEOG 476</td>
<td>Fluvial/Coastal Geomorphology</td>
</tr>
</tbody>
</table>

3. Required Courses in Other Departments: (17-18 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 201</td>
<td>General Chemistry I (GEP Group C)</td>
</tr>
<tr>
<td>CHEM 202</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Technical Writing (Core Skill 2)</td>
</tr>
<tr>
<td>MATH 109</td>
<td>Elements of Applied Probability and Statistics (Core Skill 3)</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus for Applications</td>
</tr>
<tr>
<td>or MATH 236</td>
<td>Calculus I (Core Skill 3)</td>
</tr>
</tbody>
</table>

Summary of Requirements for Major in Environmental Analysis and Planning

Major

<table>
<thead>
<tr>
<th>Hours Required in Geography:</th>
<th>46-47</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Biology:</td>
<td>21-23</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>17-18</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>84-88</td>
</tr>
</tbody>
</table>

Contact:
Fritz Kessler, Chair,
Department of Geography

Participating Faculty:
Professors:
Caupp (Geography), Kessler (Geography), Precht (Geography), Raesley (Biology)

Associate Professors:
Allen (Geography), Pegg (Biology), Ramspott (Geography)

- This multidisciplinary program is jointly administered by the Departments of Biology and Geography.
- You may not minor in Environmental Analysis and Planning.
- The program is supported by the Maryland Department of the Environment.
- Internship is optional.
- You are advised to complete the 100- and 200-level courses within your first 60 hours of course work, and before enrolling in 400-level courses in Geography and Biology.
# Ethnobotany

## Major

### See related programs:
- BIOL
- CULTURAL ANTHROPOLOGY
- ENVIRONMENTAL ANALYSIS & PLANNING
- FORESTRY
- GEOGRAPHY
- INTERPRETIVE BIOLOGY & NATURAL HISTORY
- SUSTAINABILITY STUDIES
- WILDLIFE & FISHERIES

### Summary of Requirements for Major in Ethnobotany

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Scientific Foundations</strong> (22 hours)</td>
<td><strong>1. Scientific Foundations</strong> (4 hours)</td>
</tr>
<tr>
<td>BIOL 149 General Biology I (GEP Group C)</td>
<td>BIOL 149 General Biology I (GEP Group C)</td>
</tr>
<tr>
<td>BIOL 161 General Botany</td>
<td></td>
</tr>
<tr>
<td>CHEM 201 General Chemistry I (GEP Group C)</td>
<td></td>
</tr>
<tr>
<td>GEOG 103 Physical Geography (GEP Group C)</td>
<td></td>
</tr>
<tr>
<td>MATH 109/110 Elements of Applied Probability and Statistics (Core Skill 3)</td>
<td>MATH 119 College Algebra (Core Skill 3)</td>
</tr>
<tr>
<td>or MATH 120 Pre-Calculus (Core Skill 3)</td>
<td>or any math course above 210</td>
</tr>
<tr>
<td><strong>2. Ethnobotany Core</strong> (13 hours)</td>
<td><strong>2. Ethnobotany Core</strong> (7 hours)</td>
</tr>
<tr>
<td>BIOL 128 Introduction to Ethnobotany</td>
<td>BIOL 128 Introduction to Ethnobotany</td>
</tr>
<tr>
<td>BIOL 328 Economic Botany</td>
<td></td>
</tr>
<tr>
<td>BIOL 428 Ethnographic Field Techniques (capstone)</td>
<td></td>
</tr>
<tr>
<td>BIOL 460 Field Experiences in Forestry</td>
<td></td>
</tr>
<tr>
<td><strong>3. Botany and Plant Ecology</strong> (24 hours)</td>
<td><strong>3. Botany and Plant Ecology</strong> (3 hours)</td>
</tr>
<tr>
<td>BIOL 303 Plant Physiology</td>
<td>GEOG 445 Biogeography</td>
</tr>
<tr>
<td>BIOL 305 Dendrology</td>
<td></td>
</tr>
<tr>
<td>BIOL 313 Plant Evolution and Diversity</td>
<td></td>
</tr>
<tr>
<td>BIOL 314 Plant Taxonomy</td>
<td></td>
</tr>
<tr>
<td>BIOL 340 General Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOL 425 Forest Ecology and Conservation</td>
<td></td>
</tr>
<tr>
<td>GEOG 445 Biogeography</td>
<td></td>
</tr>
<tr>
<td><strong>4. Cultural Perspectives</strong> (9 hours)</td>
<td><strong>4. Cultural Perspectives</strong> (3 hours)</td>
</tr>
<tr>
<td>GEOG 104 Human Geography (GEP Group D or F)</td>
<td>SOCI 224 Cultural Anthropology (GEP Group F)</td>
</tr>
<tr>
<td>or GEOG 110 World Regional Geography (GEP Group D or F)</td>
<td></td>
</tr>
<tr>
<td>SOCI 350 Folklore in Appalachia</td>
<td></td>
</tr>
</tbody>
</table>

### Coordinator:
Sunshine L. Brosi, Associate Professor, Department of Biology

### Participating Faculty:

**Professors:**
- Fritz, Precht

**Associate Professors:**
- Biser, Chemistry)
- Brosi (Biology), Li (Biology), Puthoff (Biology), Rogers Thomas (Sociology)

- Ethnobotany is an interdisciplinary major.
- You are encouraged to minor in related fields, including cultural anthropology, chemistry, geography, sociology, foreign language, biology and sustainability studies.
- A degree in Ethnobotany will prepare you for work in government and non-governmental organizations focused on resource management, conservation, and related areas where human communities and natural environments interact.
- You are encouraged to participate in summer internships with local and regional organizations.
- Students interested in professional and graduate degrees may need to take additional courses.
- You have the option to participate in research on medicinal plants of the Appalachian region through the Appalachian Center for Ethnobotanical Studies (ACES) a cooperative program with Frostburg State University, West Virginia University and the University of Maryland Biotechnology Institute.
**Film Studies**

*Minor*

The goal of the film minor is to help you develop visual literacy. You will acquire the essential skills of critical thinking by learning to "read texts" in the most pervasive medium of contemporary culture – film. You will:

1. Become a more critical viewer of film as a medium by learning to read, analyze, and interpret films
2. Recognize how cinematic techniques, such as camera movement, editing, and cinematography contribute to a film’s impressions
3. Become familiar with film language and terminology
4. Recognize film as a global medium of diverse cultural styles and voices
5. Become acquainted with a variety of aesthetic and cinematic movements
6. Recognize film as a vehicle for forming cultural values
7. Understand how cultural events and technologies have shaped (and continue to shape) film styles, genres, and narrative techniques
8. Understand the historical development of film as an art form

**Summary of Requirements for Minor in Film Studies**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Required Core Courses:</td>
<td>9 hours</td>
</tr>
<tr>
<td>ENGL 207*</td>
<td>Introduction to Film Studies (Fall)</td>
</tr>
<tr>
<td>ENGL 208*</td>
<td>Film and American Culture (Spring, even-numbered years)</td>
</tr>
<tr>
<td>ENGL 344*</td>
<td>Film Theory (Spring, odd-numbered years)</td>
</tr>
<tr>
<td>*Must have C or better to count toward minor.</td>
<td></td>
</tr>
</tbody>
</table>

**Fine Arts**

*Minor*

Professors:
Brown (chair), Davis, Dieruf, Rhodes

Associate Professors:
Hein, Herzfeld, Hodges

Assistant Professors:
English, Odone

- Minors are also offered in art history and graphic design. A major is offered in Art & Design. See separate listings in this catalog.
- Only courses in which a grade of C or better is earned may count towards satisfaction of major and minor requirements.

**Summary of Requirements for Minor in Fine Arts**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Basic Courses:</td>
<td>6 hours</td>
</tr>
<tr>
<td>ART 104</td>
<td>Two-Dimensional Design</td>
</tr>
<tr>
<td>ART 105</td>
<td>Three-Dimensional Design</td>
</tr>
</tbody>
</table>

2. Art History and Critical Studies: (3 hours)

Choose 3 credits from:

- ART 301 Artistic Traditions: Asia (GEP Group F)
- ART 302 Artistic Traditions: Africa and the Americas (GEP Group F)
- ART 360 Western Art History
- ART 380 19th Century Art History
- ART 408 20th Century Art History
- ART 460 Renaissance and Baroque Art History

3. Introductory Studio: (9 hours)
Choose three courses from among:
- ART 202 Ceramics
- ART 209 Crafts Workshop
- ART 212 Drawing

- ART 216 Illustration
- ART 221 Painting
- ART 232 Printmaking
- ART 235 Photography
- ART 240 Sculpture
- ART 336 Digital Imaging for the Fine Arts

4. Advanced Studio Focus: (3 hours)
Choose 3 hours from:
- ART 402 Advanced Ceramics
- ART 416 Advanced Illustration
- ART 421 Advanced Painting
- ART 432 Advanced Printmaking
- ART 435 Advanced Photography
- ART 440 Advanced Sculpture
Foreign Languages & Literature

Major

Concentrations in
- SPANISH

Minor

Summary of Requirements for Major/Minor in Foreign Languages & Literature with a Concentration in Spanish

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Core Curriculum (9 hours)</strong></td>
<td><strong>1. Core Curriculum (9 hours)</strong></td>
</tr>
<tr>
<td>SPAN 211 Spanish Grammar, Composition &amp; Conversation I*</td>
<td>SPAN 211 Spanish Grammar, Composition &amp; Conversation I*</td>
</tr>
<tr>
<td>SPAN 212 Spanish Grammar, Composition &amp; Conversation II</td>
<td>SPAN 212 Spanish Grammar, Composition &amp; Conversation II</td>
</tr>
<tr>
<td>SPAN 250 Overview of Spanish Language &amp; Culture (GEP Group B)</td>
<td>SPAN 250 Overview of Spanish Language &amp; Culture (GEP Group B)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>2. Advanced Courses (36 hours)</strong></th>
<th><strong>2. Advanced Courses (9 hours)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eleven upper-level Spanish courses, four of which must be at the 400 level</td>
<td>Any three 300 or 400–level courses in Spanish</td>
</tr>
<tr>
<td>SPAN 489 Capstone in Spanish</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>3. Linguistics (3 hours)</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LING 301 Introduction to Language</td>
<td></td>
</tr>
</tbody>
</table>

Summary of Requirements for Minor in Foreign Languages & Literature with a Concentration in French

<table>
<thead>
<tr>
<th><strong>1. Core Curriculum (9 hours)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 211 French Grammar, Composition &amp; Conversation I*</td>
</tr>
<tr>
<td>FREN 212 French Grammar, Composition &amp; Conversation II</td>
</tr>
<tr>
<td>FREN 250 Overview of French Language &amp; Culture (GEP Group B)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>2. Advanced Courses (9 hours)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Any three 300 or 400–level courses in Spanish</td>
</tr>
</tbody>
</table>

If you have no experience in French or Spanish, you will have to begin your language study at the elementary level (FREN 101 or SPAN 101)

If you have studied French or Spanish previously, you must take the online placement exam. Please go to the departmental web page to take the online exam.

Accelerated Placement

If the results of the placement exam determine that you are eligible for accelerated placement, and you complete a course above the 101 level with a grade of C or better, you may apply to the department for academic credit for the courses waived, as summarized below.

- at the 102 level, you will be eligible to receive 3 additional credits.
- at the 211 level, you will be eligible to receive 6 additional credits.
- at the 212 level, you will be eligible to receive 9 additional credits.
- at the 250 level, you will be eligible to receive 12 additional credits.
- at the 300 level, you will be eligible to receive 15 additional credits.

There is a $10.00 fee for each hour of credit received through accelerated placement.

Students are strongly encouraged to keep work from all their courses in anticipation of the senior seminar.
Summary of Requirements for Minor in Forestry

Minor  

1. Required Courses: (17 hours)  
   - BIOL 149 General Biology I (GEP Group C)  
   - BIOL 161 General Botany  
   - BIOL 305 Dendrology  
   - BIOL 425 Forest Ecology and Conservation  
   - BIOL 460 Forestry Field Practice

2. Electives: (6 hours)  
   - At least 6 credits selected from two of the following groups:  
     - Some of the following courses may have prerequisites.
     - Geography  
       - GEOG 317 Principles of Geographic Information Systems  
       - GEOG 340 Soils: Genesis, Nature and Characterization  
       - GEOG 406 Management and Conservation of Natural Resources  
       - GEOG 413 Remote Sensing - Image Interpretation  
       - GEOG 430 Surface Water Hydrology  
       - GEOG 433 Surveying  
       - GEOG 445 Biogeography  
     - Biology  
       - BIOL 230 Wildlife Techniques  
       - BIOL 410 Plant Diseases  
       - BIOL 421 Sample Design and Plant Community Analysis  
       - BIOL 494 Field Experiences in Biology*  
       - BIOL 499 Special Problems in Biology*  
     - Other electives  
       - RECR 342 Park and Facility Design  
       - RECR 440 Organization & Administration of Recreation & Parks  
       - POSC 450 Environmental Public Policy  
       - POSC 498 Readings in Political Science*  
       - ECON 410 Resource & Energy Economics

* Independent studies courses MUST address a Forestry topic.

Forestry

Minor

See related programs:

- BIOLOGY
- PRE-HEALTH OPTION
- BIOTECHNOLOGY
- ENVIRONMENTAL SCIENCE
- ENVIRONMENTAL ANALYSIS & PLANNING
- ETHNOBOTANY
- INTERPRETIVE BIOLOGY & NATURAL HISTORY
- WILDLIFE & FISHERIES

Coordinator:  
Sunshine L. Brosi,  
Associate Professor, Department of Biology

You cannot major in forestry.
## Geography

### Major

#### Concentrations in:
- CLIMATE SCIENCE
- GLOBAL SYSTEMS ANALYSIS
- MAPPING & GEOSPATIAL SCIENCES

#### Professors:
- Bullamore, Caupp, Kessler (chair),
- Precht, Saku

#### Associate Professors:
- Allen, Ramspott

#### Assistant Professors:
- Bogart, Russo

#### Lecturers:
- T. Edwards, A. Lewis

#### Summary of Requirements for Major/Minor in Geography

### (without specialized concentration)

<table>
<thead>
<tr>
<th></th>
<th>MAJOR</th>
<th>MINOR</th>
<th>MAPPING/GEOSPAT. SCIENCES CONC.</th>
<th>GLOBAL SYSTEMS ANALYSIS CONC.</th>
<th>CLIMATE SCIENCE CONC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Geography:</td>
<td>41-44</td>
<td>22</td>
<td>42-43</td>
<td>38-39</td>
<td>44-45</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>3</td>
<td>0</td>
<td>12-13</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>44-47</td>
<td>22</td>
<td>54-56</td>
<td>47-48</td>
<td>50-51</td>
</tr>
</tbody>
</table>

1. **Required Core Courses:** (20 hours)
   - GEOG 103 Physical Geography (GEP Group C)
   - GEOG 104 Human Geography (GEP Group D or F)
   - or GEOG 110 World Regional Geography: Cultural Diversity (GEP Group D or F)
   - GEOG 275 Fundamentals of Geographic Data Handling (Tech. Fluency)
   - GEOG 310 Fundamentals of Cartography
   - GEOG 380 Research Methods in Geography
   - GEOG 480 The Geographic Perspective
   - GEOG 481 Geography Capstone

2. **Advanced Physical Geography:** (3-4 hours)
   - GEOG 335 Oceanography
   - GEOG 340 Soils: Genesis, Nature and Characterization
   - GEOG 405 Global Climate System
   - GEOG 430 Surface Water Hydrology
   - GEOG 431 Quaternary Environments
   - GEOG 445 Biogeography

3. **Advanced Human Geography:** (3 hours)
   - GEOG 300 Economic Geography
   - GEOG 324 Urban Geography: Internal City Patterns
   - GEOG 325 Urban Geography: Metropolitan Systems
   - GEOG 407 Political Geography
   - GEOG 410 Locational Analysis
   - GEOG 423 Geography of the Suburbs
   - GEOG 425 Geography of Transportation
   - GEOG 427 Geography of Languages & Religions (GEP Group F)
   - GEOG 454 Geography of Tourism

4. **Advanced Regional Geography:** (3 hours)
   - Select from:
     - GEOG 301 Geography of North America
     - GEOG 302 Geography of Maryland
     - GEOG 320 Geography of Latin America
     - GEOG 400 Geography of Asia
     - GEOG 401 Geography of Europe
     - GEOG 402 Geography of Northern Eurasia
     - GEOG 403 Geography of Sub-Saharan Africa
     - GEOG 404 Geography of the Middle East and Central Asia

5. **Geographic Techniques:** (3 hours)
   - Select from:
     - GEOG 317 Principles of Geographic Information Systems
     - GEOG 413 Remote Sensing - Image Interpretation
     - GEOG 420 Topics in the Mapping and Geospatial Sciences
     - GEOG 433 Surveying and Field Techniques

6. **Human-Earth Relationships:** (3 hours)
   - Select from:
     - GEOG 360 Food Systems
     - GEOG 406 Mgmt. & Conservation of Natural Resources
     - GEOG 450 Urban Planning

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### Minor

1. **Required Core Courses:** (7 hours)
   - GEOG 103 Physical Geography (GEP Group C)
   - GEOG 104 Human Geography (GEP Group D or F)
   - or GEOG 110 World Regional Geography: Cultural Diversity (GEP Group D or F)

2. **Electives** (15 hours)
   - Select any from GEOG courses at or above the 200-level or equivalent except GEOG 492 and 495

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- You may elect to complete the major without specialized concentration or choose a concentration in climate system science, global systems analysis or mapping science.
- An internship is optional.
Major continued

GEOG 460  Natural Hazards in the Physical Environment
GEOG 472  Environmental Planning
GEOG 473  Environmental Law

7. Electives  (6-8 hours)
Any two additional geography courses at or above the 200-level or equivalent except GEOG 495

8. Required Courses in Other Departments:  
(3 hours)
MATH 109  Elements of Applied Probability & Statistics  
(Core Skill 3)
*Three or more credits earned in GEOG 499 Research in Geography, may count as one course.

Requirements for Climate Science Concentration

1. Required Core Courses:  (20 hours)
GEOG 103  Physical Geography (GEP Group C)
GEOG 104  Human Geography (GEP Group D or F)  
or GEOG 110 World Regional Geography: Cultural Diversity  
(GEP Group D or F)
GEOG 275  Fundamentals of Geographic Data Handling  
(Tech. Fluency)
GEOG 310  Fundamentals of Mapping Sciences
GEOG 380  Research Methods in Geography
GEOG 480  The Geographic Perspective
GEOG 481  Geography Capstone

2. Required Climate Science Courses:  
(15-16 hours)
GEOG 205  or PHSC 205 Descriptive Meteorology
GEOG 335  Oceanography  
or GEOG 430 Surface Water Hydrology
GEOG 405  Physical Climatology
GEOG 429  Synoptic Climatology
GEOG 469  Principles of Atmospheric Dynamics

3. Advanced Physical Geography:  (3-4 hours)
Select one from:
GEOG 335  Oceanography*
GEOG 340  Soil: Genesis, Nature & Characterization
GEOG 430  Surface Water Hydrology*
GEOG 431  Quaternary Environments
GEOG 432  Groundwater Hydrology
GEOG 445  Biogeography
GEOG 460  Natural Hazards in the Physical Environment

4. Advanced Human Geography:  (3 hours)
Select one from:
GEOG 324  Urban Geography: Internal City Patterns
GEOG 325  Urban Geography: Metropolitan Systems
GEOG 360  Food Systems
GEOG 406  Conservation & Management of Natural Resources
GEOG 410  Locational Analysis
GEOG 423  Geography of the Suburbs
GEOG 425  Geography of Transportation

5. Geographic Techniques:  (3 hours)
Select one from:
GEOG 317  Principles of Geographic Information Science
GEOG 413  Remote Sensing - Image Interpretation
GEOG 420  Topics in the Mapping and Geospatial Sciences

6. Required Courses in Other Departments  (6 hours)
MATH 109/110 Elements of Applied Probability and Statistics  
(Core Skill 3)
MATH 220  Calculus for Applications  
or MATH 236 Calculus 1 (Core Skill 3)

7. Recommendations:  
Students are encouraged to select additional course work:
COSC 130  Introduction to Programming
MATH 222  Calculus for Applications 2
PHSC 215  General Physics 1
Additional Geographic Techniques courses
Additional Advanced Physical Geography courses

*if not used to fulfill Climate Science Requirement
### Requirements for Global Systems Analysis Concentration

1. **Required Core Courses:** (20 hours)
   - GEOG 103 Physical Geography (GEP Group C)
   - GEOG 104 Human Geography (GEP Group D or F)
   - or GEOG 110 World Regional Geography: Cultural Diversity (GEP Group F)
   - GEOG 275 Fundamentals of Geographic Data Handling (Tech. Fluency)
   - GEOG 310 Fundamentals of Cartography
   - GEOG 380 Research Methods in Geography
   - GEOG 480 The Geographic Perspective
   - GEOG 481 Geography Capstone

2. **Specialized Advanced Courses:** (15 hours)
   - **Group I Human Geography:** (9 hours)
     - GEOG 300 Economic Geography
     - GEOG 407 Political Geography
   - Select one from:
     - GEOG 325 Urban Geography: Metropolitan Systems
     - GEOG 410 Locational Analysis
     - GEOG 423 Geography of the Suburbs
     - GEOG 425 Geography of Transportation
     - GEOG 427 Geography of Languages and Religions (GEP Group F)
     - GEOG 454 Geography of Tourism
   - **Group II Regional Geography:** (6 hours)
     - Select two from:
       - GEOG 320 Geography of Latin America
       - GEOG 400 Geography of Asia
       - GEOG 401 Geography of Europe
       - GEOG 402 Geography of Northern Eurasia
       - GEOG 403 Geography of Sub-Saharan Africa
       - GEOG 404 Geography of the Middle East and Central Asia

3. **Complementary Advanced Courses:** (3-4 hours)
   - Select one course from one of the three groups:
   - **Group I Physical Geography:** (0-4 hours)
     - GEOG 335 Oceanography
     - GEOG 340 Soils: Genesis, Nature and Characterization
     - GEOG 405 Global Climate System
     - GEOG 430 Surface Water Hydrology
     - GEOG 431 Quaternary Environments
     - GEOG 445 Biogeography
   - **Group II Geographic Techniques:** (0-3 hours)
     - GEOG 317 Principles of Geographic Information Science (GIS)
     - GEOG 413 Remote Sensing - Image Interpretation
     - GEOG 420 Topics in the Mapping and Geospatial Sciences
     - GEOG 433 Surveying and Field Techniques
   - **Group III Human-Earth Relationships:** (0-3 hours)
     - GEOG 360 Food Systems
     - GEOG 406 Management and Conservation of Natural Resources
     - GEOG 450 Urban Planning
     - GEOG 460 Natural Hazards in the Physical Environment
     - GEOG 472 Environmental Planning
     - GEOG 473 Environmental Law

4. **Required Courses in Other Departments:** (9 hours)
   - MATH 109 Elements of Applied Probability and Statistics (Core Skill 3)
   - and select two from:
     - ECON 309 Comparative Economic Systems
     - ECON 400 International Trade
     - ECON 401 International Finance
     - ECON 405 Econ. Growth & Develop.: Developing Economies
     - HIST 304 History of Latin America
     - HIST 341 Modern & Contemporary Middle East
     - HIST 353 Contemporary Africa
     - HIST 376 Modern Europe
     - HIST 404 Revolutionary and Soviet Russia
     - HIST 409 World Environmental History
     - HIST 437 History of Korea
     - HIST 450 History of Mexico
     - HIST 455 Latin American Revolutions
     - HIST 457 India
     - HIST 458 History of China
     - HIST 459 History of Japan
     - PHIL 311 Asian and African Philosophy (GEP Group F)
     - PHIL 315 Philosophy and the Environment
     - POSC 330 Politics of Africa
     - POSC 331 Politics of Latin America
     - POSC 332 Politics of the Middle East
     - POSC 333 Politics of Europe
     - POSC 341 International Organization
     - POSC 431 Russian Politics
     - POSC 433 Model Organization of American States
     - POSC 441 International Relations: Theory and Practice

Foreign language courses at the 200 level or higher may fulfill this requirement.

*Some courses may have prerequisites*
Requirements for Mapping and Geospatial Sciences Concentration

1. Required Core Courses: (20 hours)
   GEOG 103 Physical Geography (GEP Group C)
   GEOG 104 Human Geography (GEP Group D or F)
   or GEOG 110 World Regional Geography: Cultural Diversity
   (GEP Group D or F)
   GEOG 275 Fundamentals of Geographic Data Handling
   (Tech. Fluency)
   GEOG 310 Fundamentals of Cartography
   GEOG 380 Research Methods in Geography
   GEOG 480 The Geographic Perspective
   GEOG 481 Geography Capstone

2. Specialized Advanced Courses:
   Geographic Techniques: (12 hours)
   GEOG 317 Principles of Geographic Information Science (GIS)
   GEOG 413 Remote Sensing - Image Interpretation
   GEOG 420 Topics in Mapping and Geospatial Sciences
   GEOG 433 Surveying and Field Techniques

3. Complementary Advanced Courses: (9-10 hours)
   Select one course from three of the four groups:
   Group I Physical Geography: (0-4 hours)
   GEOG 335 Oceanography
   GEOG 340 Soils: Genesis, Nature and Characterization
   GEOG 405 Global Climate System
   GEOG 430 Surface Water Hydrology
   GEOG 431 Quaternary Environments
   GEOG 445 Biogeography
   Group II Human Geography: (0-3 hours)
   GEOG 300 Economic Geography
   GEOG 324 Urban Geography: Internal City Patterns
   GEOG 325 Urban Geography: Metropolitan Systems
   GEOG 407 Political Geography
   GEOG 410 Locational Analysis
   GEOG 423 Geography of the Suburbs
   GEOG 425 Geography of Transportation
   GEOG 427 Geography of Languages and Religions (GEP Group F)
   GEOG 454 Geography of Tourism
   Group III Regional Geography: (0-3 hours)
   GEOG 301 Geography of North America
   GEOG 302 Geography of Maryland
   GEOG 320 Geography of Latin America
   GEOG 400 Geography of Asia
   GEOG 401 Geography of Europe

4. Required Courses in Other Departments:* (12 hours)
   MATH 109 Elements of Applied Probability & Statistics
   (Core Skill 3)
   MATH 119 College Algebra (Core Skill 3)
   or MATH 220 Calculus for Applications I
   or any MATH level III class (3 hours)
   COSC 130 Introduction to Programming (3 hours)
   Select one additional COSC or ITEC course not to include COSC 101
   or ITEC 312 (3-4 hours).

5. Recommendations:* Students are encouraged to select additional course work depend-
   ing on their specific area of interest such as:
   MATH 220 & 221 Calculus I and II
   COSC 240 Computer Science I (4 hours)
   COSC 241 Computer Science II (4 hours)
   COSC 330 Web Design and Development (3 hours)
   ITEC 315 Programming (3 hours)
   ITEC 345 Database Systems I (3 hours)

*some of these courses may have prerequisites

Summary of Requirements for Double Major in Secondary Teacher Education

If you wish to complete a Maryland State-approved program in teaching secondary social studies, you must:

- Complete the BA/BS in geography in the Mapping Sciences, Global Systems Analysis or Climate Science concentration or without concentration.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- In addition to the regular major requirements, you must take coursework in economics, history, political science, and social science in order to qualify for Maryland State certification in social studies and to meet NCATE accreditation standards. See the Secondary Teacher Education Program Coordinator for details.
Graphic Design

Summary of Requirements for Minor in Graphic Design

Minor

1. Basic Courses: (9 hours)
   ART 104 Two-Dimensional Design
   ART 207 Graphic Design (Tech. Fluency)
   ART 212 Drawing

2. Introductory Studio: (3 hours)
   Choose from:
   ART 216 Illustration
   ART 221 Painting
   ART 232 Printmaking
   ART 235 Photography

3. Advanced Studio Focus: (9 hours)
   ART 307 Computer Graphics
   ART 407 Advanced Graphic Design: Print
   ART 414 Advanced Graphic Design: Interactive Multimedia Design

MINOR

Hours Required in Art: 21
Hours Required in Other Departments: 0
Total Hours Required: 21

Health Science

Summary of Requirements for Major in Health Science

Major

1. Required GEP Courses
   BIOL 149 General Biology I (GEP Group C)
   CHEM 201 General Chemistry I (GEP Group C)
   COSC 100 Introduction to Computer Science * (Tech. Fluency)
   ENGL 101 Freshman Composition (Core Skill)
   ENGL 338/339 Technical/Scientific Writing (Core Skill)
   MATH 119 College Algebra (or higher) (Core Skill)
   PHIL 102 Contemporary Ethical Problems (GEP Group B)
   PSYC 150 General Psychology (GEP Group D)
   SOCI 100 Introduction to Sociology (GEP Group D)

2. Health Science Required Courses
   (37-45 credits)
   BIOL 160 General Zoology
   BIOL 321/322 Anatomy and Physiology I/II
   or BIOL 302 Animal Physiology
   CHEM 202 General Chemistry II
   CHEM 311/312 Organic Chemistry
   CHEM 322/323 Organic Chemistry II
   HLTH 101 Community Health Promotion
   HSCI 101 Medical Terminology
   MATH 109 Statistics
   PHIL 313 Biomedical Ethics
   PHYS 215 General Physics I
   PHYS 216 General Physics II
   HSCI 491 Health Science Capstone

*Students may satisfy this requirement by passing the Basic Information Technology Skills (BITS) test; however, no credits will be earned.

MAJOR

Hours Required in HSCI: 4
Hours Required in Other Departments: 63-71
Total Hours Required: 67-75
Health Sciences Preparatory Programs

Dental Hygiene Preparation

Pre-professional program

Coordinator:
Karen Keller, Assistant Professor, Department of Biology

- The listed pre-professional courses are required for students interested in attending the University of Maryland, Baltimore's Dental Hygiene Program. These courses could also be taken, together with additional requirements, by students interested in attending other programs in Dental Hygiene.

- It is expected that each student enrolled in the Pre-Dental Hygiene Program will earn and maintain a minimum 3.0 cumulative grade point average and a 3.0 cumulative grade point average in biology, chemistry, and nutrition to be considered competitive for the program.

- You cannot major or minor in Dental Hygiene Preparation.

Summary of Requirements for Pre-professional Program in Dental Hygiene Preparation

1. Science Courses (28 hours)
   - B I O L 304 Microbiology
   - B I O L 310 Cell Biology
   - B I O L 350 Genetics
   - B I O L 404 Histology
   - B I O L 412 General Parasitology
   - B I O L 435 Molecular Biology
   - B I O L 440 Developmental Biology
   - B I O L 445 Immunology
   - C H E M 455 Biochemistry I
   - C H E M 456 Biochemistry Laboratory
   - C H E M 457 Biochemistry II
   - H L T H 200 Nutrition
   - H L T H 222 Emergency Medical Techniques in Athletic Training
   - H L T H 305 Care and Prevention of Athletic Injuries
   - H L T H 320 Pharmacology and General Medical Conditions
   - H L T H 405 Sexuality
   - P H E C 303 Biomechanics for Exercise and Sport Science
   - P H E C 301 Applied Biomechanics
   - P H E C 341 Psychology of Physical Activity
   - P H E C 401 Physiology of Exercise

2. Non-Science Courses (12 hours)
   - E N G L 101 Freshman Composition
   - E N G L 310 or 312 Advanced Composition
   - E N G L 338 Technical Writing
   - M A T H 109 Elements of Applied Probability and Statistics

3. Humanities (3 hours)
   This course can be taken in the categories of literature, philosophy, foreign languages, music and art appreciation, fine arts, math, particular education courses and history. Courses must be academic, non-studio courses. Physical Education courses are not transferable.

4. Psychology (3 hours)
   - P S Y C 208 Introduction to Lifespan Development
   - P S Y C 210 Child Development
   - P S Y C 212 Adolescent and Adult Development
   - P S Y C 214 Introduction to Geropsychology
   - P S Y C 220 Psychology of Women
   - P S Y C 250 Death and Dying
   - P S Y C 317 Abnormal Psychology
   - P S Y C 345 Animal Learning and Cognition
   - P S Y C 386 Drugs and Human Behavior
   - P S Y C 409 Human Learning and Cognition
   - P S Y C 420 Physiological Psychology
   - P S Y C 430 Health and Psychology
   - P S Y C 489 Abnormal Child Psychology

5. Sociology (3 hours)
   - S O C I 100 Introduction to Sociology
   - S O C I 200 Nutrition

6. Nutrition (3 hours)
   - H E E D 200 Nutrition

7. Public Speaking (3 hours)
   - C M S T 122 Introduction to Public Speaking

8. Social Sciences (6 hours)
   Social science electives can be taken in the categories of psychology and sociology – in addition to the required introductory courses, anthropology, political science, economics, cultural studies, women’s studies, geography, business management, religion, information systems (not keyboarding courses) and education. Introduction to Computers (academic course – COSC 100) would be an acceptable 3-hour social science elective.
Coordinators and Co-Chairs, Health Professions Advisory Committee:
Karen Keller, Assistant Professor, Department of Biology,
William Seddon, Professor, Department of Biology,
Matthew Crawford, Assistant Professor, Department of Chemistry

Students applying for professional school should stay in contact with the Health Professions Advisory Committee. The committee interviews candidates for professional school and supplies a committee letter of recommendation to the applicants’ prospective school. This procedure enhances the students’ application prospects.

### Summary of Requirements for Medical, Dental, Optometry & Veterinary Medicine Pre-Health Professions Program

1. Students intending to enter health professions schools should plan their academic programs carefully to meet pre-professional, university and major requirements.

2. Pre-health professions students should continually examine the catalog of the institution they plan to attend in order to complete courses required by the professional school and to fulfill additional entrance expectations. Students should bear in mind that requirements change and they should maintain contact with any professional schools they want to attend.

3. A science major is not a prerequisite for medical school; therefore, a major should be selected in which the student has a high aptitude and interest and which provides career alternatives. A proper course selection is most important; consequently, we highly recommend early consultation with the chair of the department of your selected major, who will assign you to a pre-health professions advisor.

4. Though students may choose any major, most pre-health professions students at FSU select biology or chemistry as majors. The Pre-Health Professions Option outlined in the Biology section of this catalog should be selected by students majoring in Biology. Chemistry students planning medical school and other pre-health professional programs complete either the Biochemistry concentration or Traditional Track outlined for the Chemistry major. Students opting to minor in either department are advised to use sections 5 and 6 below as a guide to course selection.

5. Professional schools generally require a demonstrated proficiency in the basic sciences. The following courses are among the minimum requirements for students planning to prepare for medical, dental, optometry or veterinary school.

<table>
<thead>
<tr>
<th>BIOL 149 and 160</th>
<th>General Biology I and Intro to Zoology</th>
<th>8 cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 201 and 202</td>
<td>General Chemistry I and II</td>
<td>8 cr.</td>
</tr>
<tr>
<td>CHEM 311/312 and 321/322</td>
<td>Organic Chemistry I and II</td>
<td>8 cr.</td>
</tr>
<tr>
<td>PHYS 215, 216 or 261, 262</td>
<td>General Physics I, II or Principles of Physics I, II</td>
<td>8 cr.</td>
</tr>
<tr>
<td>MATH — 2 courses</td>
<td>*See options in #6</td>
<td>6 cr.</td>
</tr>
</tbody>
</table>

6. Some professional schools require and many recommend additional courses as minimal requirements. The following list should be used as a guide for course selection by students in any major.

<table>
<thead>
<tr>
<th>BIOL 302</th>
<th>Animal Physiology</th>
<th>4 cr.</th>
<th>CHEM 320</th>
<th>Quantitative Analytical Chemistry</th>
<th>4 cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 304</td>
<td>Microbiology</td>
<td>4 cr.</td>
<td>CHEM 455, 456, 457</td>
<td>Biochemistry Lec. I &amp; II and Lab</td>
<td>6 cr.</td>
</tr>
<tr>
<td>BIOL 310</td>
<td>Cell Biology</td>
<td>4 cr.</td>
<td>ENGL 338</td>
<td>Technical Writing</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 321</td>
<td>Anatomy &amp; Physiology I</td>
<td>4 cr.</td>
<td>MATH 120</td>
<td>Pre-Calculus</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 322</td>
<td>Anatomy &amp; Physiology II</td>
<td>4 cr.</td>
<td>MATH 109 or 380</td>
<td>Probability &amp; Statistics</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 350</td>
<td>Genetics</td>
<td>3 cr.</td>
<td>MATH 236, 237, 238</td>
<td>Calculus I, II, III</td>
<td>12 cr.</td>
</tr>
<tr>
<td>BIOL 401</td>
<td>Genentics Laboratory</td>
<td>1 cr.</td>
<td>PHIL 313</td>
<td>Biomedical Ethics</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 404</td>
<td>Histology</td>
<td>4 cr.</td>
<td>SCI 367</td>
<td>Sociology of Medicine</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 427</td>
<td>Comparative Anatomy</td>
<td>4 cr.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 435</td>
<td>Molecular Biology</td>
<td>4 cr.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Biochemistry I (CHEM 455) is an entrance requirement at the Virginia-Maryland Regional College of Veterinary Medicine.

8. Almost all professional schools require applicants to take certain standardized examinations.

- Medical Schools — Medical College Admission Test (MCAT).
- Dental Schools — Dental Admissions Test (DAT).
- Optometry Schools — Optometry Admission Test (OAT).
- Veterinary Schools — Graduate Record Exam (GRE).

You may obtain information about the tests from Career Services.
Medical Technology Preparation

Coordinator:
Benjamin Norris, Assistant Professor, Department of Chemistry

- You must complete at least 60 hours of academic preparation, exclusive of Health & Physical Education, before beginning the professional segment of this program.
- The Summary of Requirements will assist you in planning your first two years of study which fulfill the requirements of the University of Maryland, Baltimore, and the National Accrediting Agency for Clinical Laboratory Science. Students interested in attending other institutions should consult their catalogs for specific entrance requirements.
- The Pre-Medical Technology Program is competitive and high-quality academic performance is expected.
- You cannot major or minor in Medical Technology Preparation.

Summary of Requirements for Pre-professional Program in Medical Technology

1. Biology: (15-16 hours)
   - BIOL 149 General Biology I
   - BIOL 304 Microbiology
   - BIOL 321 Anatomy and Physiology I

   Biology Elective - choose one from the following:
   - BIOL 310 Cell Biology
   - BIOL 322 Anatomy and Physiology II
   - BIOL 350 Genetics

2. Chemistry (12 hours)
   - CHEM 201 General Chemistry I
   - CHEM 202 General Chemistry II
   - CHEM 311 & 312 Organic Chemistry I (and lab)

3. English (6 hours)
   - ENGL 101/111 Freshman Composition
   - or ENGL 310/312 Advanced Composition
   - ENGL 321 & 322 Organic Chemistry II (and lab)

4. Humanities (3 hours)
   - Select a non-performing course from art, music, foreign language (2nd year or above), humanities, communication studies, theatre, philosophy.

5. Mathematics (6 hours)
   - MATH 119 College Algebra
   - or MATH 120 Pre-Calculus
   - or MATH 236 Calculus I
   - MATH 109/110 Elements of Applied Probability and Statistics
   - or MATH 380 Intro. to Probability and Statistics

6. Guided Electives (3 hours)
   - Select a Communications Studies (CMST) course focusing on communication and/or speech course such as CMST 102/112 Intro. to Human Communication or CMST 122 Intro. to Public Speaking.

7. Social Sciences (6 hours)
   - Select courses from economics, geography, history, political science, psychology, sociology, African American studies.

8. Electives (minimum 8 hours)
   - Select courses from biology, chemistry, and physics.
   - Strongly recommended:
     - CHEM 321 & CHEM 322 Organic Chemistry II (and lab)
     - PHYS 215 General Physics I or PHYS 261 Principles of Physics I
     - PHYS 216 General Physics II or PHYS 262 Principles of Physics II

Total Hours Required: 60

Nursing Preparation

Coordinator:
Kara Platt, Assistant Professor, Department of Nursing

- Prospective nurses interested in a B.S. degree from a school of nursing may take a two-year program at FSU. It is expected that each student enrolled in the pre-nursing program will earn and maintain a minimum 3.2 cumulative grade point average.
- Most nursing schools (including the University of Maryland, Baltimore School of Nursing) require an admissions test prior to applying. Students should consult individual nursing schools for information.
- You cannot major or minor in Nursing Preparation.
- This program does not result in a degree in nursing.

A liberal arts program is recommended as preparation for professional study in the field of nursing, particularly if you are interested in the additional career opportunities available to those earning a B.S. degree in Nursing.

1. Biology: (16 hours)
   - BIOL 149 General Biology I
   - BIOL 304 Microbiology
   - BIOL 321 Anatomy and Physiology I
   - BIOL 322 Anatomy & Physiology II

2. Chemistry: (4 or 8 hours*)
   - CHEM 201 General Chemistry I
   - CHEM 202 General Chemistry II
   - (The University of Maryland, Baltimore only requires CHEM 201)

3. English: (6 hours)
   - ENGL 101 Freshman Composition
   - ENGL 308 Social Sciences Advanced Composition
   - or ENGL 338 Technical Writing
   - or ENGL 339 Scientific Writing

4. Humanities: (9 hours)
   - Must include courses from at least three of the following disciplines:
     - English (literature courses), history, philosophy, foreign languages, music/art (history and/or appreciation), speech

5. Social Sciences (9 hours)
   - PSYC 150 General Psychology
   - PSYC 208 Intro to Lifespan Development
   - SOCI 100 Introduction to Sociology

6. Other Required Courses: (9 hours)
   - HEED 200 Nutrition (to be taken in Spring of 2nd year)
   - MATH 119 College Algebra
   - MATH 109 Elements of Probability and Statistics
Occupational Therapy Preparation

Pre-professional program

The following information is relevant for students interested in the Combined BS/MS Occupational Therapy Program at Towson University. The prerequisite courses may also be taken, together with additional requirements, by students interested in completing a professional occupational therapy program at other institutions. Applicants must consult the occupational therapy pages on Towson’s website for additional information about the program, including any changes made subsequent to this catalog. Applicants are also highly encouraged to contact the Admissions and Placement Coordinator for the College of Health Professions at Towson University for additional information at 410.704.2653.

- To apply, candidates must have a cumulative GPA of 3.0 or better.
- You cannot major or minor in Occupational Therapy Preparation.
- By December 31 of the year prior to application, candidates must complete General Biology I or Anatomy and Physiology I and two of the following: Freshman Composition, General Psychology and Introduction to Sociology.
- The remaining prerequisite course must be completed by May 30 of the application year.
- Candidates must earn a grade of B- (2.67) or better in all four prerequisites.
- Candidates must apply to Towson University and complete the Supplemental Application for the Combined BS/MS Program that can be found online at the website listed at the bottom of this page. The supplemental application must be received by March 1.
- By March 1 of application year, candidates must complete a minimum of 14 credits of college-level courses.
- By the screening deadline, candidates must complete at least 30 hours of human service activity. See the supplemental application for details.
- By August 31 of the year prior to the first term of the Occupational Therapy Program, candidates must complete a minimum of 23 credits that meet Towson University’s General Education or Core Curriculum requirements, including a medical terminology course with a grade of B or higher (1-3 units).

Summary of Requirements for Pre-professional Program in Occupational Therapy

Prerequisite Courses: (13 hours)

- BIOC 149 General Biology I
- or BIOC 321 Anatomy and Physiology I
- ENGL 101/111 Freshman Composition
- PSYC 150/151 General Psychology
- SOCI 100/111 Intro. to Sociology

For further information, consult the website for Towson University, Combined Bachelor’s & Master’s OT Program: www.towson.edu/ot.
Pharmacy Preparation

Pre-professional program

Summary of Requirements for Pre-professional Program in Pharmacy

| Total Hours: | 65 |

1. Biology (16 hours)
   - BIOL 149 General Biology I
   - BIOL 304 Microbiology
   - BIOL 321 Anatomy & Physiology I
   - BIOL 322 Anatomy & Physiology II

2. Chemistry (16 hours)
   - CHEM 201 General Chemistry I
   - CHEM 202 General Chemistry II
   - CHEM 311 Organic Chemistry I
   - CHEM 312 Organic Chemistry I Lab
   - CHEM 321 Organic Chemistry II
   - CHEM 322 Organic Chemistry II Lab
   - CHEM 455 Biochemistry I (recommended)

3. English (6 hours)
   - ENGL 101/111 Freshman Composition
   - ENGL 310/312 Advanced Composition
   - ENGL 338 Technical Writing
   - ENGL 339 Scientific Writing

4. Mathematics (7 hours)
   - MATH 109/110 Elements of Applied Probability and Statistics
   - MATH 236 Calculus I
   - MATH 380 Introduction to Probability and Statistics

5. Physics (8 hours)
   - PHYS 215 General Physics I
   - PHYS 216 General Physics II
   - PHYS 261 Principles of Physics I
   - PHYS 262 Principles of Physics II

6. Humanities (6 hours)

7. Social Sciences (6 hours)
   - ECON 202 Principles of Economics (Micro)
   - And one other Social Science elective

8. Humanities/Social Science Electives (6 hours)
   - CMST 122 Introduction to Public Speaking
   - And one other Humanities/Social Science elective

Coordinator:
   Peggy Biser, Associate Professor, Department of Chemistry

- The following 2-to-3 year pre-professional course pattern is suggested for students particularly interested in the University of Maryland, Baltimore School of Pharmacy. Students interested in attending other schools of pharmacy should consult their catalogs for specific entrance requirements.
- Each student enrolled in the pre-pharmacy program must earn and maintain a minimum 3.00 cumulative grade point average.
- The Pharmacy College Admissions Test (PCAT) is also required and should be taken in the fall semester of the student's last year of study at FSU.
- For students who want to earn a baccalaureate degree at FSU before applying to a school of pharmacy, a major in chemistry or biology is appropriate.

Physical Therapy Preparation

Pre-professional program

Summary of Requirements for Pre-professional Program in Physical Therapy

| Total Hours: | 65 |

1. Biology (16 hours)
   - BIOL 149 General Biology I (GEP Group C)
   - BIOL 321 Anatomy and Physiology I
   - BIOL 322 Anatomy and Physiology II
   - Any 300- or 400-level biology course with lab (excluding botany courses) in addition to the courses listed above

2. Chemistry (8 hours)
   - CHEM 201 General Chemistry I (GEP Group C)
   - CHEM 202 General Chemistry II

3. Mathematics (6 hours)
   - MATH 119 College Algebra (co-requisite for CHEM 201)
   - MATH 109 Elements of Applied Probability & Statistics (Core Skill 3)
   - or SOCI 310 Statistics for Social Science

4. Physics (8 hours)
   - PHYS 215 General Physics I (GEP Group C)
   - PHYS 216 General Physics II

Coordinator:
   Melody Kentrus, Assistant Professor, Department of Kinesiology and Recreation

- Professional schools differ substantially in their requirements for admission and it is the responsibility of the student to ensure the completion of the necessary pre-physical therapy courses for the professional schools of interest.
- You are expected to earn and maintain at least a 3.50 cumulative grade point average.
- Physical Therapy experience as volunteer or aide is required (100-200 hours) as is a current CPR certificate.
- You cannot major or minor in pre-physical therapy.
History of the United States
History of the United States
World History
World History

1. Core Introductory Level Courses: (6 hours)
Select from:

HIST 103 History of the United States
HIST 104 History of the United States
HIST 113 World History
HIST 114 World History

2. Research Core: (6 hours)
HIST 299 Writing and Research in History
Completion of HIST 299 with a C or better is required for admission to the history major. Students may file a declaration of major BEFORE completing HIST 299.
HIST 485 Seminar in History
Must be completed during the senior year with a grade of C or better. Fulfills Capstone Experience in the major requirement.

3. Concentrations: (27 hours)
Majors must choose one of the following concentrations:
International History
History of the Americas

4. Electives (6 hours)
Any two 300/400-level HIST courses except HIST 495.
Requirements for International History Concentration

1. Select five courses from the following:
   - HIST 301 Traditional Africa
   - HIST 303 History of Latin America
   - HIST 304 History of Latin America
   - HIST 306 Medieval Europe
   - HIST 307 Renaissance and Reformation Europe
   - HIST 308 Europe, 1600-1815
   - HIST 310 Ancient Greece and Rome
   - HIST 341 Modern and Contemporary Middle East
   - HIST 353 Contemporary Africa
   - HIST 360 Modern and Contemporary Asia
   - HIST 376 Modern Europe
   - HIST 403 Imperial Russia
   - HIST 404 Revolutionary and Soviet Russia
   - HIST 409 World Environmental History
   - HIST 418 Native Peoples of the Americas (GEP Group F)
   - HIST 419 A History of Terrorism
   - HIST 433 Public History
   - HIST 436 Women’s Issues in World History (GEP Group F)
   - HIST 437 History of Korea
   - HIST 450 History of Mexico
   - HIST 455 Latin American Revolutions
   - HIST 457 India
   - HIST 458 China
   - HIST 459 History of Japan
   - HIST 475 Genocide and Mass Violence
   - HIST 481 Experiential History/International
   - HIST 489 Special Topics in History of International History

2. Select two history courses from the History of the Americas concentration.

3. Select two complementary courses from the following areas (some of these courses may require additional pre-requisite course work):
   - ART 301 Artistic Traditions: Asia (GEP Group F)
   - ART 302 Artistic Traditions: Africa & the Americas (GEP Group F)
   - ART 360 Western Art History
   - ECON 309 Comparative Economic Systems
   - ECON 405 Economic Growth and Development
   - ENGL 270 European and Non-European Literature
   - ENGL 271 Asian and African Literature
   - ENGL 332 The Age of Johnson
   - ENGL 340 Shakespeare
   - ENGL 371 The Middle Ages in Literature
   - ENGL 372 Early Modern Literature
   - ENGL 373 Literature of the Enlightenment
   - ENGL 374 Age of Revolution
   - ENGL 375 Romanticism
   - ENGL 376 Realism and Naturalism
   - ENGL 377 Modernism
   - ENGL 378 Postmodernism
   - ENGL 379 Postcolonial Literature
   - GEOG 320 Geography of Latin America
   - GEOG 401 Geography of Europe
   - GEOG 402 Geography of Northern Eurasia
   - GEOG 403 Geography of Sub-Saharan Africa
   - POSC 330 Politics of Africa
   - POSC 331 Politics of Latin America
   - POSC 332 Politics of the Middle East
   - POSC 333 Politics of Europe
   - POSC 431 Russian Politics
   - FREN 250 or above (250 – GEP Group B)
   - SPAN 250 or above (250 – GEP Group B)

Requirements for History of the Americas Concentration

1. Select five courses from the following:
   - HIST 303 History of Latin America
   - HIST 304 History of Latin America
   - HIST 409 World Environmental History
   - HIST 418 Native Peoples of the Americas (GEP Group F)
   - HIST 420 Green: Environment and Economy in U.S. History
   - HIST 433 Public History
   - HIST 436 Women’s Issues in World History (GEP Group F)
   - HIST 445 History of Maryland
   - HIST 450 History of Mexico
   - HIST 455 Latin American Revolutions
   - HIST 461 Colonial America, 1607-1763
   - HIST 462 Revolutionary America, 1763-89
   - HIST 463 The Age of Jefferson and Jackson, 1789-1848
   - HIST 464 The Civil War and Reconstruction, 1849-77
   - HIST 465 Gilded Age America, 1877-1913
   - HIST 466 The U.S. in the 20th Century, 1914-45
   - HIST 467 The U.S. in the 20th Century, 1945-Present
   - HIST 470 America and the Vietnam War
   - HIST 480 The American West
   - HIST 482 Experiential History/Américas
   - HIST 490 Special Topics in History of the Americas

2. Select two history courses from the International History concentration.

3. Select two complementary courses from the following areas (some of these courses may require additional pre-requisite course work):
   - ART 302 Artistic Traditions: Africa & the Americas (GEP Group F)
   - ECON 303 American Economic Development
   - ECON 405 Economic Growth and Development
   - ENGL 261 African American Literature
   - ENGL 261 American Literature: Colonial to Present
   - ENGL 372 Early Modern Literature
   - ENGL 373 Literature of the Enlightenment
   - ENGL 374 Age of Revolution
   - ENGL 375 Romanticism
   - ENGL 376 Realism and Naturalism
   - ENGL 377 Modernism
   - ENGL 378 Postmodernism
   - ENGL 379 Postcolonial Literature
   - GEOG 301 Geography of North America
   - GEOG 320 Geography of Latin America
   - GEOG 324 Urban Geography: Internal City Patterns
   - POSC 331 Politics of Latin America
   - POSC 332 Politics of the Middle East
   - POSC 333 Politics of Europe
   - POSC 335 Politics of the Middle East
   - POSC 421 American Legislative Politics
   - POSC 427 The American Presidency
   - POSC 471 American Political Thought
   - SOCI 307 African Americans in Appalachia
   - SPAN 250 or above (250 – GEP Group B)
   - SPAN 250 or above (250 – GEP Group B)
INFORMATION TECHNOLOGY

Summary of Requirements for Double Major in Secondary Teacher Education

If you wish to complete a Maryland State-approved program in teaching secondary social studies, you must:

- Complete the BA/BS in history in either concentration.
- Declare a second major in Secondary Teacher Education. See your History Department advisor or the Secondary Program Coordinator for details.
- In addition to the regular major requirements, you must take coursework in economics, geography, political science, and social science in order to qualify for Maryland State certification in social studies and to meet NCATE accreditation standards.

Social Studies Content Courses

- Six hours of economics: this could be met by taking ECON 201 (GEP D) and 202 or by taking ECON 200 (GEP D) and ECON 201, ECON 303, or ECON 307. One of these can double-dip in the GEPs.
- Six hours of geography: this could be met by taking GEOG 103 (GEP C) and either GEOG 104 or 110 (both GEP D or F), or by taking either GEOG 104 or 110 and any other upper level human geography course.
- Six hours of political science: this could be met by taking two of POSC 110, POSC 113, or 131 (all three GEP D) or taking any of the three and any other upper level politics course.
- Three hours of interdisciplinary social science: this will be met by taking either SOSC 350 or SOSC 490.

Information Technology

<table>
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<th>Major</th>
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<tr>
<td>MAJOR</td>
<td>MINOR</td>
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<tr>
<td>Total Hours Required:</td>
<td>67-68</td>
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Summary of Requirements for Major/Minor in Information Technology

1. Core Courses: (15 hours)
   - COSC 100/110 Introduction to Computer Science (Tech. Fluency)
     or COSC 101 The Discipline of Computer Science (Tech. Fluency)
   - COSC 102 Foundations of Computer Science
   - COSC 130 Introduction to Programming
   - COSC 305 Computer Ethics
   - ITEC 315 Programming

2. Required Advanced Courses: (22 hours)
   - COSC 300 Structured Systems Analysis and Design
   - ITEC 312 Human-Computer Interaction
   - ITEC 345 Database Systems I
   - ITEC 355 Network Implementation
   - ITEC 360 Operating Systems
   - ITEC 470 Security and Risk Management
   - ITEC 480 Project Management
   - ITEC 489 Capstone Course

3. Other Required Courses: (12-13 hours)
   - CMST 102/112 Introduction to Human Communication
   - ENGL 338 Technical Writing (Core Skill 2)
   - MATH 109/110 Elements of Applied Probability & Statistics (Core Skill 3)
     or MATH 380 Intro. To Probability & Statistics
   - MATH 220 Calculus for Applications I
     or MATH 236 Calculus I (Core Skill 3)

4. Electives: (6 hours):
   Choose a minimum of 6 hours in at least two courses:
   - ITEC 363 PC Module Installation and Maintenance
   - ITEC 364 PC Software Installation and Maintenance
   - ITEC 410 Diversity in the Global Information Technology
   - ITEC 414 Knowledge Management
   - ITEC 442 Electronic Commerce
   - ITEC 445 Database Systems II
   - ITEC 452 Network Administration and Security
   - ITEC 462 Emerging Issues and Technologies
   - ITEC 475 Computer and Cyber Forensics
   - ITEC 491 Seminar in Information Technology
   - ITEC 494 Field Experience in Information Technology
   - ITEC 499 Individual Problems in Information Technology

5. Tracks/Application Areas (12 hours):
   Choose the following track/area:

   **Accounting**
   - ACCT 211 Financial Accounting
   - ACCT 212 Managerial Accounting
   - ACCT 305 Accounting Systems
   - ACCT 311 Intermediate Accounting

   **Business Information Technology**
   - BUAD 100 Introduction to Business
   - MGMT 251 Management of Organizations
   - MGMT 356 Leadership and Human Behavior
   - MGMT 405 Business Ethics and Social Responsibility

   **Computer Security**
   - IDIS 150 First Year FSU Colloquium: Personal Security and Privacy in the Age of Information

See related programs:

- COMPUTER INFORMATION SYSTEMS MAJOR & MINOR
- COMPUTER SCIENCE MAJOR & MINOR
- CONCENTRATION IN NETWORKS
- CERTIFICATES IN:
  - SOFTWARE DEVELOPMENT
  - PROGRAMMING
  - NETWORKING

Professors:
- Flisztz, Rinard (Chair)
- Gheno, S. Kennedy

Associate Professors:
- M. Flinn, Zheng
- Pan, Xiao, Xu

Lecturers:
- Gheno, S. Kennedy

Associate Professors:
- Pan, Xiao, Xu

Lecturers:
- Gheno, S. Kennedy

Associate Professors:
- Pan, Xiao, Xu

Lecturers:
- Gheno, S. Kennedy

Associate Professors:
- Pan, Xiao, Xu

Lecturers:
- Gheno, S. Kennedy
INTERNATIONAL AREA STUDIES

Requirements for Minor in Information Technology

COSC 101 The Discipline of Computer Science (Tech. Fluency)
 or COSC 100 Introduction to Computer Science (Tech. Fluency)
COSC 130 Introduction to Programming
COSC 300 Structured Systems Analysis and Design
ITEC 345 Database Systems I
ITEC 442 Electronic Commerce

and select one course from the following:
ITEC 312 Human-Computer Interaction
ITEC 410 Diversity in Global Information Technology

International Area Studies

Certificate

Coordinator:
Richard Russo, Assistant Professor, Department of Geography

Students participating in a study abroad program may apply courses to this certificate if the courses transfer for upper division credit and are appropriate for the areas of the world identified. Students must conform to FSU rules in using transfer credits for this certificate. These rules include obtaining prior approval before taking courses and a limit on the number of transferred credits that may be applied to the certificate.

Summary of Requirements for Certificate in International Area Studies

Choose Option 1, 2, 3 or 4: (12 hours)

1. Europe:
   (choose from at least three disciplines)
   ART 360 Western Art History
   GEOG 401 Geography of Europe
   GEOG 402 Geography of Northern Eurasia
   HIST 376 Modern Europe
   HIST 404 Revolutionary and Soviet Russia
   POSC 333 Politics of Europe
   POSC 431 Russian Politics
   FREN 250 or above (250 – GEP Group B)
   SPAN 250 or above (250 – GEP Group B)

2. Latin America:
   (choose from at least three disciplines)
   ART 302 Artistic Traditions: Africa and the Americas (GEP Group F)
   GEOG 320 Geography of Latin America
   HIST 304 History of Latin America
   HIST 418 Native Peoples of the Americas (GEP Group F)
   HIST 450 The History of Mexico
   HIST 455 Latin American Revolutions
   POSC 331 Politics of Latin America
   POSC 435 Model Organization of American States
   SPAN 250 or above (250 – GEP Group B)

3. Africa and the Middle East:
   (choose from at least three disciplines)
   ART 302 Artistic Traditions: Africa and the Americas (GEP Group F)
   GEOG 403 The Geography of Sub-Saharan Africa
   GEOG 404 Geography of the Middle East
   HIST 341 Modern and Contemporary Middle East
   HIST 353 Contemporary Africa
   PHIL 311 Asian and African Philosophy (GEP Group F)
   POSC 330 Politics of Africa
   POSC 332 Politics of the Middle East
   FREN 250 or above (250 – GEP Group B)

4. Asia:
   (choose from at least two disciplines)
   ART 301 Artistic Traditions: Asia (GEP Group F)
   GEOG 400 Geography of Asia
   HIST 357 India
   HIST 360 Modern and Contemporary Asia
   HIST 437 History of Korea
   HIST 458 History of China
   HIST 459 History of Japan
   PHIL 311 Asian and African Philosophy (GEP Group F)
## INTERNATIONAL STUDIES

### International Studies

<table>
<thead>
<tr>
<th>Major</th>
<th>MAJOR</th>
<th>INT'L. POLITICS CONC.</th>
<th>INT'L. BUSINESS CONC.</th>
<th>INT'L. ECON CONC.</th>
<th>INT'L. DEVELOPMENT CONC.</th>
<th>MINOR</th>
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<td>66-72</td>
<td>66-73</td>
<td>66-72</td>
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#### Concentration in
- INTERNATIONAL BUSINESS
- INTERNATIONAL POLITICS
- INTERNATIONAL ECONOMICS
- INTERNATIONAL DEVELOPMENT

#### Coordinator:
Richard Russo, Assistant Professor, Department of Geography

#### Departmental Contacts:

**Professors:**
- Bonice (History), Hartlaub (Political Science), Twing (Political Science)

**Associate Professors:**
- McCoskey (Economics), Sanchez (Foreign Languages and Literature)

**Assistant Professors:**
- Ma (History), Russo (Geography)

#### Summary of Requirements for Major/Minor in International Studies

### Major

#### 1. Required Core Courses: (27 hours)
- INST 200 Intro. to International Studies (GEP Group F)
- INST 491 Seminar in International Studies (Capstone)
- ECON 201/211 Principles of Economics (Macro) (GEP Group D)
- ECON 202/212 Principles of Economics (Micro)
- GEOG 104/114 Human Geography (GEP Group D or F) or GEOG 110 World Regional Geography: Cultural Diversity (GEP Group D or F)
- HIST 100/111 The Contemporary World in Historical Perspective (GEP Group B or F) or HIST 114 World History
- MATH 109/110 Elements of Applied Probability and Statistics (Core Skill)
- POSC 113/114 Introduction to World Politics (GEP Group D) or POSC 131 Intro. to Comparative Politics (GEP Group D or F)

#### 2. Foreign Language: (12-18 hours)
Students must complete the 200-level sequence 211-212-250 (or receive credit through advanced placement) and a 300-level course in a modern foreign language. Students are advised that an additional 6 credits in the language result in a minor (250 – GEP Group B). A second option is to take 18 credit hours in any foreign language course offered or approved for credit by the Foreign Languages department.

#### 3. Additional Courses: (21 hours)
For those completing a concentration, go to the concentration requirements.

### A. Required Courses: (15 hours)
- ECON 309 Comparative Economic Systems
- GEOG 407 Political Geography
- POSC 341 International Organization and two of the following:
  - INST 150 Intro. to World Religions (GEP Group F)
  - MDFL 111 Intercultural Understanding (GEP Group F)
  - SOC 224 Cultural Anthropology (GEP Group F)

### B. Elective Courses: (6 hours)
Two from among the following:
- MGMT 450 International Management
- MKTG 460 International Marketing
- FINA 470 International Financial Mgmt.
- ECON 400 International Trade
- ECON 401 International Finance
- ECON 405 Economics of Developing Countries
- GEOG 300 Economic Geography
- GEOG 360 Food Systems
- GEOG 406 Mgmt. and Conserv. of Natural Res.
- GEOG 427 Geog. of Languages and Religions (GEP Group F)
- HIST 409 World Environmental History
- HIST 419 A History of Terrorism
- HIST 436 Women’s Issues in World History (GEP Group F)

### Minor

#### 1. Required Core Courses: (3 hours)
- INST 200 Intro. to International Studies (GEP Group F)

#### 2. Foreign Language: (0 hours)

#### 3. Elective Courses: (18 hours)
A minimum of 9 hours must be taken from Group I and 9 hours from Group II. You must select courses from at least three different disciplines in fulfilling the 18 hours for this requirement. Many courses in Group II require specific courses in Group I as prerequisites.

**Group I (9 hours)**
- ECON 201/211 Principles of Economics – Macro (GEP Group D)
- ECON 202/212 Principles of Economics – Micro
- GEOG 104/114 Human Geography (GEP Group D or F) or GEOG 110 World Regional Geography: Cultural Diversity (GEP Group D or F)
- HIST 100/111 The Contemporary World in Historical Perspective (GEP Group B or F) or HIST 114 World History

**Group II (9 hours)**
- ECON 309 Comparative Economic Systems
- ECON 400 International Trade or ECON 401 International Finance
- ECON 405 Economics of Developing Countries
- FINA 470 International Financial Management
- GEOG 300 Economic Geography
- GEOG 360 Food Systems
- GEOG 406 Mgmt. and Conservation of Natural Res.
- GEOG 407 Political Geography
- GEOG 427 Geography of Languages & Religions (GEP Group F)
- HIST 409 World Environmental History
- HIST 419 A History of Terrorism
- HIST 436 Women’s Issues in World History (GEP Group F)
- HIST 475 Genocide and Mass Violence
- INST 491 Seminar in International Studies
- LING 301 Introduction to Language
- MGMT 450 International Management
- MKTG 460 International Marketing
- PHIL 308 Political Philosophy (GEP Group F)
- POSC 336 Politics of Food
- POSC 341 International Organization
- POSC 342 Foreign Policy of the United States
- POSC 370 Introduction to Political Thought
- POSC 441 International Relations: Theory and Practice
- POSC 443 Transnational Terrorism and Counter-Terrorism
- POSC 488 Comparative Legal Systems

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*Note: For those completing a concentration, go to the concentration requirements.*
### Major continued

- **HIST 475** Genocide and Mass Violence
- **INST 492** Internship Seminar (up to 6 hours)
- **LING 301** Introduction to Language
- **PHIL 308** Political Philosophy (GEP Group F)
- **POSC 342** Foreign Policy of the United States
- **POSC 336** Politics of Food
- **POSC 370** Introduction to Political Thought
- **POSC 434** Comparative Legal Systems
- **POSC 441** International Relations: Theory and Practice
- **POSC 443** Transnational Terrorism and Counter-Terrorism
- **POSC 488** Comparative Legal Systems

### Requirements for International Politics Concentration

1. **Required Core Courses:** (27 hours – listed above)
2. **Foreign Language:** (12-18 hours – listed above)
3. **Additional Courses:** (27 hours)
   - **A. Required Courses:** (18 hours):
     - **ECON 309** Comparative Economic Systems
     - **GEOG 407** Political Geography
     - **POSC 250** Research Methods
     - or **GEOG 380 Research Methods in Geography**
     - **POSC 341** International Organization
     - **POSC 342** Foreign Policy of the United States
     - **POSC 441** International Relations: Theory and Practice
   - **B. Elective Courses:** (9 hours)
     - Three from among the following:
       - **ECON 400** International Trade
       - **HIST 409** World Environmental History
       - **HIST 419** A History of Terrorism
       - **INST 492** Internship Seminar (if internship is relevant to International Politics)
       - **POSC 330** Politics of Africa
       - **POSC 331** Politics of Latin America
       - **POSC 332** Politics of Middle East
       - **POSC 333** Politics of Europe
       - **POSC 336** Politics of Food
       - **POSC 370** Introduction to Political Thought
       - **POSC 431** Russian Politics
       - **POSC 435** Model Organization of American States
       - **POSC 442** National Security Policy
     - **POSC 443** Transnational Terrorism and Counter-Terrorism
     - **POSC 488** Comparative Legal Systems

### Requirements for International Business Concentration

1. **Required Core Courses:** (27 hours – listed above)
2. **Foreign Language:** (12-18 hours – listed above)
3. **Additional Courses:** (27 hours)
   - **A. Required Courses:** (15 hours)
     - **ACCT 211** Financial Accounting
     - **BLAW 291** Legal Environment of Business
     - and one of the following pairs of courses:
       - **FINA 370** Corporate Finance*
       - **FINA 470** International Financial Management
       - **MGMT 251** Management of Organizations
       - **MGMT 450** International Management
       - **MKTG 361** Principles of Marketing
       - **MKTG 460** International Marketing
     - and one of the following courses:
       - **ECON 309** Comparative Economic Systems
       - **ECON 400** International Trade
       - **ECON 401** International Finance
   - **B. Elective Courses:** (12 hours)
     - **ECON 405** Economics of Developing Countries
     - **FINA 303** Principles of Finance
     - **GEOG 300** Economic Geography
     - **GEOG 360** Food Systems
     - **GEOG 407** Political Geography
     - **GEOG 427** Geography of Languages and Religions (GEP Group F)
     - **HIST 409** World Environmental History
     - **INST 492** Internship Seminar (if internship is relevant to International Business)
     - **PHIL 308** Political Philosophy (GEP Group F)
     - **POSC 336** Politics of Food
     - **POSC 341** International Organization
     - **POSC 370** Introduction to Political Thought
     - **POSC 441** International Relations: Theory and Practice
     - **POSC 488** Comparative Legal Systems

*Students should be aware that there are additional MATH and ACCT prerequisites for FINA 370; also, students are advised to complete FINA 303 before enrolling in FINA 370.
Requirements for International Economics Concentration

1. Required Core Courses: (27 hours – listed above)

2. Foreign Language: (12-18 hours – listed above)

3. Additional Courses: (27-28 hours)
   A. Required Courses: (21-22 hours)
   - ECON 400 International Trade
   - ECON 401 International Finance
   - ECON 405 Economics of Developing Countries
   - ECON 450 Quantitative Economics
   - or ECON 460 Introduction to Econometrics
   - GEOG 300 Economic Geography
   - MATH 118 Algebra With Calculus for Business
     - or MATH 220 Calculus for Applications I
     - or MATH 236 Calculus I (Core Skill 3)
   B. Elective Courses: (6 hours)
   - Two from among the following:
     - ECON 309 Comparative Economic Systems
     - ECON 410 Resource and Energy Economics
     - GEOG 407 Political Geography
     - INST 492 Internship Seminar (if internship is relevant to International Economics)
     - POSC 341 International Organization

Requirements for International Development Concentration

1. Required Core Courses: (27 hours – listed above)

2. Foreign Language: (12-18 hours – listed above)

3. Additional Courses: (27 hours)
   A. Required Courses: (15 hours)
   - ECON 309 Comparative Economic Systems
   - ECON 405 Economics of Developing Countries
   - GEOG 300 Economic Geography
   - INST 150 Introduction to World Religions (GEP Group F)
   - POSC 341 International Organization
   B. Elective Courses: (12 hours)
   - Four courses (chosen from at least three different disciplines) from among the following:
     - ECON 400 International Trade
     - ECON 401 International Finance
     - GEOG 320 Geography of Latin America
     - GEOG 360 Food Systems
     - GEOG 400 Geography of Asia
     - GEOG 403 The Geography of Sub-Saharan Africa
     - GEOG 404 Geography of the Middle East
     - GEOG 407 Political Geography
     - HIST 301 Traditional Africa
     - HIST 304 History of Latin America
     - HIST 341 Modern and Contemporary Middle East
     - HIST 353 Contemporary Africa
     - HIST 360 Modern and Contemporary Asia
     - HIST 455 Latin American Revolutions
     - HIST 457 India
     - INST 492 Internship Seminar (if internship is relevant to International Development)
     - PHIL 311 Asian and African Philosophy (GEP Group F)
     - POSC 330 Politics of Africa
     - POSC 331 Politics of Latin America
     - POSC 332 Politics of the Middle East
     - POSC 336 Politics of Food
Jazz Studies Minor

Program Coordinator:
Brent Weber, Assistant Professor, Department of Music

- The Jazz Studies Minor is open to music majors looking for a broader musical experience or students wanting to explore jazz instruction and performance while pursuing another major.
- Course of study includes:
  - Jazz and Vocal Jazz Ensembles
  - Private Applied Instruction
  - Music Theory and Jazz Theory and Analysis
  - Jazz History
- Student must demonstrate prior study of an instrument or voice.
- Only courses in which you earn a grade of C or better will count toward satisfaction of the minor requirements.

Jazz Studies Minor Core Requirements:

1. Music Theory and History: (14 hours)
   - MUSC 102 Theory I
   - MUSC 103 Theory II (Tech. Fluency)
   - MUSC 104 Aural Skills I
   - MUSC 105 Aural Skills II
   - MUSC 214 Jazz Theory and Analysis
   - MUSC 311 Jazz History (GEP Group F)

2. Ensemble: (4 hours)
   4 hours selected from:
   - MUSC 327 Concert Jazz Ensemble (Instrumentalist)
   - MUSC 370 Vocal Jazz Ensemble (Vocalist)

3. Private Instruction: (4 hours)
   - MUSA 116-123 Private Instruction
   and/or MUSA 356-363 Private Instruction

<table>
<thead>
<tr>
<th>MINOR</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Music:</td>
<td>22</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>0</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>22</td>
</tr>
</tbody>
</table>
JOURNALISM

Journalism

Minor

Coordinator:
Andy Duncan, Associate Professor,
Department of English

Participating Faculty:

Professor:
Boniece (History)

Associate Professors:
Abbay (History), Charney (History),
A. Duncan (English), S. Duncan
(English), Ewers (English), G. Wood
(History)

Assistant Professors:
Ma (History), McConnell (History),
Morris (English), Whalen
(Communication),

- The minor in journalism will help you develop:
  - Improved communication skills
  - Familiarity with the roles that journalists perform in different environments
  - Understanding of cultural differences, political matters, and global issues facing the practicing journalist today
  - Enhanced problem-solving skills
  - Ability to perform specific tasks related to print and media journalism
  - Awareness of legal and ethical restrictions on journalists
- You cannot major in journalism.

Summary of Requirements for Minor in Journalism

<table>
<thead>
<tr>
<th>Minor</th>
<th>MINOR</th>
<th>Total Hours Required:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

1. English: (12 hours)
- ENGL 336 Journalistic Writing
- ENGL 402 Editing and Production
- ENGL 436 Advanced News and Feature Writing
- ENGL 494 Field Experience

2. History: (3 hours)
Choose one from the following:
- HIST 304 History of Latin America
- HIST 341 Modern and Contemporary Middle East
- HIST 353 Contemporary Africa
- HIST 360 Modern and Contemporary Asia
- HIST 376 Modern Europe
- HIST 404 Revolutionary and Soviet Russia
- HIST 467 U.S. in the 20th Century, 1945-Present
- HIST 475 Genocide and Mass Violence

3. Mass Communication: (6 hours)
- MCOM 326 Writing for the Electronic Media
- MCOM 447 Telecommunications Law

4. Political Science: (3 hours)**
- POSC 363 Media and Politics***

*Students minoring in journalism are encouraged to take HIST 100, The Contemporary World in Historical Perspective, towards fulfilling the six-hour requirement in the Humanities (Group B) for the General Education Program.

**Students minoring in journalism are encouraged to take POSC 110, Introduction to American Politics, or POSC 113, Introduction to World Politics, towards fulfilling the six-hour requirement in the Social Sciences (Group D) for the General Education Program.

***The Political Science Department has agreed to waive the pre-requisite for POSC 363 for journalism minors.
Law

Bachelors/Juris Doctor Program

Dual-degree program

| Hours Required at Frostburg State University | 91 |
| Hours Required at University of Baltimore School of Law | 29 |
| Total Hours Required: | 120 |

**Law and Society**

**Major**

Concentrations in:

- **CRIMINAL JUSTICE**
- **LEGAL STUDIES**

**Coordinator:**
Scott Johnson, Professor, Department of Political Science

**Frostburg State University students may earn the last 29 of the 120 credit hours required by Frostburg State University for graduation at the University of Baltimore School of Law. The result of this Bachelor/Juris Doctor Program is that students may attain an undergraduate and a law degree in six years instead of the normal seven years.**

**Summary of Requirements at FSU for the Bachelors/Juris Doctor Program**

1. Complete 91 credit hours with Frostburg State University.
2. Complete all of Frostburg State University’s general education requirements.
3. Maintain cumulative grade point averages as required at FSU for the academic major and overall course work.
4. Complete all requirements for an academic major at Frostburg State University.
5. Be accepted by the University of Baltimore School of Law into its early admission program. Students can apply for early admission by simply checking the appropriate box on the regular application form.
6. Attain the Bachelor’s degree from Frostburg State University upon transferring 29 credits from the University of Baltimore School of Law.

In addition it is recommended that students meet the following criteria:

1. Maintain a grade point average of 3.3 or above at Frostburg State University to enhance the chances for acceptance by the University of Baltimore School of Law.
2. Complete one of the following majors at Frostburg State University: economics, French, geography, history, law and society, philosophy, political science, psychology, sociology, or Spanish. Other majors are possible, but may require the completion of more than 91 credit hours.

**Law and Society**

**Major**

**Concentrations in:**

- **CRIMINAL JUSTICE**
- **LEGAL STUDIES**

**Coordinator:**
Scott Johnson, Professor, Department of Political Science

**Coordinating Committee:**

**Professors:**
S. Johnson (Political Science), D. Lewis (Political Science)

**Associate Professor:**
McMullen (Sociology)

**Assistant Professor:**
Mathias (Philosophy)

**Law and Society is an interdisciplinary major that offers concentrations in criminal justice and legal studies.**

- An internship is optional but strongly encouraged.
- You cannot minor in Law and Society.

**Summary of Requirements for Major in Law and Society**

**Major**

1. **Required Core Courses:** (19 hours)
   - PHIL 102 Contemporary Ethical Problems (GEP Group B)
   - or PHIL 112 Honors Contemporary Ethical Problems (GEP Group B)
   - POSC 110 Intro. to American Politics (GEP Group D)
   - or POSC 112 Honors Intro. to American Politics (GEP Group D)
   - POSC 250 Research Methods
   - or SOCI 311 Basic Research Methods

2. **Concentrations:** (27-30 hours)

   Complete one of the following concentrations:

**Concentration in Legal Studies** (27 hours)

**A. Required Course** (3 hours)

- PHIL 410 Philosophy of Law

**B. Elective Courses** (24 hours)

Select a total of eight courses, with at least three from Group 1 and at least four from Group 2:

**Group 1**

- BLAW 291 Legal Environment of Business
- GEOG 473 Environmental Law
- MCOM 447 Telecommunications Law
- MGMT 457 Labor Relations
- PHIL 420 Sport Law and Ethics
- POSC 324 Criminal Justice Systems
- POSC 488 Comparative Legal Systems

**Group 2**

- CMST 302 Argumentation and Advocacy
- PHIL 201 Ethics
- PHIL 205 Logic
- PHIL 304 Social Philosophy
- PHIL 305 Criminal Justice Ethics
- POSC 321 State and Local Politics
- POSC 323 Public Administration
- POSC 358 American Public Policy
- SOCI 340 Criminology
- SOCI 442 Juvenile Delinquency
- SOCI 443 The American Correctional System

**Total Hours Required:**

- MAJOR 46-49
- CRIMINAL JUSTICE CONCENTRATION 49
- LEGAL STUDIES CONCENTRATION 46
**LAW SCHOOL PREPARATION**

**Concentration in Criminal Justice (30 hours)**

**A. Required Courses (30 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST 102</td>
<td>Introduction to Human Communication</td>
</tr>
<tr>
<td>or CMST 122</td>
<td>Introduction to Public Speaking</td>
</tr>
<tr>
<td>PHIL 305</td>
<td>Criminal Justice Ethics</td>
</tr>
<tr>
<td>or PHIL 410</td>
<td>Philosophy of Law</td>
</tr>
<tr>
<td>POSC 324</td>
<td>Criminal Justice Systems</td>
</tr>
<tr>
<td>SOCI 200</td>
<td>Social Problems</td>
</tr>
<tr>
<td>or SOCI 203</td>
<td>Deviant Behavior</td>
</tr>
<tr>
<td>SOCI 340</td>
<td>Criminology</td>
</tr>
<tr>
<td>SOCI 443</td>
<td>The American Correctional System</td>
</tr>
</tbody>
</table>

**B. Elective Courses (12 hours)**

Select any four of the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 201</td>
<td>Ethics</td>
</tr>
<tr>
<td>PHIL 304</td>
<td>Social Philosophy</td>
</tr>
</tbody>
</table>

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### Law School Preparation

**Pre-professional program**

The traditional preparatory majors for entering law schools have been political science, history, English, philosophy, or sociology. Most law schools prefer that undergraduates interested in admission to law school not follow a prescribed “pre-law” curriculum. Rather, they prefer that students pursue a broad, liberal education.

Almost all professional law schools require applicants to take the Law School Aptitude Test. In some cases, the Graduate Record Exam may also be required. Information regarding the L.S.A.T. may be obtained from this university's pre-law advisor. Information regarding the G.R.E. may be obtained from University Counseling and Psychological Services.

Prospective law students should strive to acquire exceptional ability in communication; gain critical understanding of human values and institutions; and develop understanding in the use of various types of reasoning: deductive, inductive, and analogous. Students should develop the ability to think creatively and to analyze critically. They should also learn how to recognize, differentiate, and organize facts according to their relevance to particular issues.

### Suggested Elective Courses for Law School Preparation

The following courses may be especially helpful in achieving the qualities stated above. Students are advised to choose elective courses from this list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLAW 291</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>CMST 122</td>
<td>Intro. to Public Speaking</td>
</tr>
<tr>
<td>CMST 225</td>
<td>Interviewing</td>
</tr>
<tr>
<td>CMST 302</td>
<td>Argumentation &amp; Advocacy</td>
</tr>
<tr>
<td>CMST 322</td>
<td>Presentational Communication</td>
</tr>
<tr>
<td>CMST 451</td>
<td>Seminar in Communication Theory</td>
</tr>
<tr>
<td>ECON 307</td>
<td>Govt. and Business</td>
</tr>
<tr>
<td>ECON 404</td>
<td>Public Finance</td>
</tr>
<tr>
<td>ENGL 330</td>
<td>Business Writing</td>
</tr>
<tr>
<td>ENGL 334</td>
<td>Creative Writing</td>
</tr>
<tr>
<td>ENGL 336</td>
<td>Journalistic Writing</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>GEOG 450</td>
<td>Urban Planning</td>
</tr>
<tr>
<td>GEOG 473</td>
<td>Environmental Law</td>
</tr>
<tr>
<td>HIST 103, 104</td>
<td>History of U.S. I, II</td>
</tr>
<tr>
<td>PHIL 102/112</td>
<td>Contemporary Ethical Problems</td>
</tr>
<tr>
<td>PHIL 205</td>
<td>Logic</td>
</tr>
<tr>
<td>PHIL 410</td>
<td>Philosophy of Law</td>
</tr>
<tr>
<td>POSC 324</td>
<td>Criminal Justice Systems</td>
</tr>
<tr>
<td>POSC 422, 423</td>
<td>American Constitutional Law I, II</td>
</tr>
<tr>
<td>SOCI 200</td>
<td>Social Problems</td>
</tr>
<tr>
<td>SOCI 443</td>
<td>The Amer. Correctional System</td>
</tr>
</tbody>
</table>

### Law School Admission Test (LSAT) Preparation Course

This non-credit course is designed to help students prepare for the Law School Admission Test (LSAT), a prerequisite for all students seeking admission to law school. The course is offered twice during the academic year in preparation for the October and June tests. There is a fee for the course that covers the costs of instruction and a textbook that contains more than 500 questions and problems, including analytical exercises, practice tests, and a full-length home-study exam. The course covers each of the main sections of the LSAT in depth: application of rules, reading comprehension, logical games, logical reasoning, and essay writing. For each section, students are exposed to a wide variety of sample questions, which are analyzed in class, and various suggestions and methods are presented in lectures for approaching the types of questions in each section.

Graduates of the LSAT prep course have gained admission to such law schools as The Georgetown University Law Center, Duquesne University School of Law, The University of Baltimore School of Law, The West Virginia University College of Law, Appalachian School of Law, Ohio Northern University College of Law, The Thomas M. Cooley Law School, and Liberty College of Law.

For further information, contact Dr. Scott Johnson, pre-law advisor and instructor of the course.
Leadership Studies

Minor

Coordinator:
Elesha Ruminski, Department of Communication

Participating Faculty:
Professor:
Powell (Social Work),
Associate Professors:
Kice (Communication), Ruminski (Communication)
Assistant Professors:
Whalen (Communication)

Lecturers:
D. Baer, Bowling, Mandicott (Student Affairs), Stern (Communication), Willingham (Communication)

The Leadership Studies Minor is open to any student seeking theoretical and experiential leadership development. It is not necessary to be in a leadership role on or off campus to minor in Leadership Studies.

The minor entails a substantial number of experiential learning activities.

Only courses in which a grade of C or better is earned will count towards satisfaction of the minor requirements.

You cannot major in Leadership Studies.

Summary of Requirements for Minor in Leadership Studies

| Minor | Total Hours Required: | 19 |

1. Required Core Courses: (13 credits)
CMST 102 Introduction to Human Communication
LEAD 101 Introduction to Leadership Studies
LEAD 201 Leadership Theories and Practices
LEAD 401 Citizen Leader

2. Leadership Values and Skills: (3 credits)
Select one of the following courses:
CMST 215 Small Group Communication
CMST 300 Interpersonal Communication
CMST 322 Presentational Communication
CMST 335 Organizational Communication
CMST 345 Conflict Management
MGMT 356 Leadership and Human Behavior
MGMT 405 Business Ethics and Social Responsibility
PHIL 201 Ethics
PHIL 304 Social Philosophy
PHIL 314 Business Ethics
POSC 462 Personality and Politics
PSYC 385 Group Processes
PSYC 414 Theories of Personality
PSYC 418 Social Psychology
SOWK 375 Human Behavior and the Social Environment I
SOWK 473 Generalist Practice with Groups

3. Leadership Environments: (3 credits)
Select one of the following courses:
LEAD 499 Independent Study (3 cr.)
MGMT 251 Management of Organizations
MGMT 357 Human Resources Management
MGMT 359 Quality Management
POSC 321 State and Local Politics
POSC 323 Public Administration
POSC 352 Interest Groups
POSC 358 American Public Policy
POSC 427 The American Presidency
RECR 380 Recreation Leadership
RECR 382 Program Planning
SOCI 325 Community Analysis
SOWK 370 Introduction to Social Welfare and Social Work
## Liberal Studies

### Major

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>Liberal Core</td>
<td>21</td>
</tr>
<tr>
<td>Focus Area Requirements</td>
<td>30</td>
</tr>
<tr>
<td>Capstone Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

## Summary of Requirements for Major in Liberal Studies

**I. Liberal Core: (21 hours)**

A minimum of 21 hours of course work in the arts and sciences in addition to courses satisfying General Education Program requirements, and distributed as follows:

- **A.** 3 hours in communication arts course that focuses on writing or speaking.
- **B.** 18 hours in arts and sciences courses, including a minimum of 3 hours each in arts, humanities, natural sciences, and social sciences.

**II. Focus Area Requirements (approval of LBST Coordinator required): (30 hours)**

- **A.** A minimum of 27 hours in a discipline or disciplines (including current minors) related to the student’s area of technical or professional training or other specialized interest, including a minimum of 15 hours at the 300/400 level.
- **B.** A minimum of 3 hours in a capstone course (seminar, individual research, practicum, field work or internship).

**III. Capstone Seminar (1 hour)**

LBST 450: Senior Self-Assessment (capstone)

---

**Coordinator:**
Randall Rhodes, Professor

**Participating Faculty:**
- Thomas Sigerstad, Associate Professor, Department of Management (Business),
- Christopher Masciocchi, Assistant Professor, FSU College of Liberal Arts and Sciences Programs, USM - Hagerstown

Only courses in which a C or better is earned will count toward satisfaction of major requirements.

The Liberal Studies major may be completed on the Frostburg campus and at the University System of Maryland in Hagerstown.

You cannot earn a minor in Liberal Studies.

**Total Hours Required:** 52
Mass Communication Major

Summary of Requirements for Major In Mass Communication

Major

1. Introductory/Prerequisite Course: (3 hours)
   MCOM 105 Introduction to Mass Communication

2. Mass Communication Practice Courses: (9 hours)
   ART 207 Graphic Design (Tech. Fluency)
   MCOM 287 Introduction to Video Production
   MCOM 246* Introduction to Mass Communication Research Methods

3. Advanced Mass Communication Courses: (18 hours)
   MCOM 326* Writing for Electronic Media
   MCOM 346* Mass Communication Theory
   MCOM 447* Telecommunications Law
   MCOM 485* Electronic Media Aesthetics & Criticism
   MCOM 486* Current Issues and New Technology in Mass Communication
   MCOM 498* Craft Seminar in Mass Communication (Capstone)

4. Internship: (Minimum of 3 hours)
   MCOM 492 and 495 Internship Project/Extended Internship
   or MCOM 494 Internship
   or One 3-credit Mass Communication Elective

5. Professional Focus: (12 hours)
   All MCOM majors must complete one of the focus groupings listed below or one of the following minors: Communication Studies, Graphic Design, Journalism, Leadership Studies, Marketing, or Public Relations. Students wishing to substitute a course for one of the courses in the listed focus groupings may petition the Chair, in writing, prior to earning 90 credit hours. Many of these courses have prerequisites and students should plan their earlier studies accordingly.

Audio Production
   Choose four from:
   MCOM 213 Audio Production
   MCOM 250 Announcement and Performance
   MCOM 313* Advanced Audio Production
   MCOM 465* Music Promotion and Production
   MCOM 499* Directed Study
   MUSC 358 The Business of Music and Arts Management

Video Production
   MCOM 387* Multi-Camera Studio Production
   MCOM 487* Advanced Video Production
   MCOM 488* Multi-Camera Field Production
   MCOM 499* Directed Study

Audio/Video Production
   Choose two from each group:
   Group 1
   MCOM 213 Audio Production
   MCOM 250 Announcement and Performance

MAJOR

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Mass Communication</td>
<td>30-42</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>3-15</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>45</td>
</tr>
</tbody>
</table>

*Course has prerequisites; consult the course description section of this catalog
† This program is intended to give a foundational background in some business aspects of MCOM, but is not intended as preparation for a professional career in business.

1. Required Courses (18 hours)
   MCOM 105 Introduction to Mass Communication
   MCOM 246* Intro. to Mass Communication Research Methods
   MCOM 346* Mass Communication Theory
   MCOM 447* Telecommunications Law
   MCOM 485* Electronic Media Aesthetics and Criticism
   MCOM 486* Current Issues & New Technologies in Mass Communication

2. Electives (6 hours)
   Select six additional credits of MCOM courses (excluding MCOM 100 and MCOM 101)

5. Professional Focus for majors continued:
   MCOM 313* Advanced Audio Production
   MCOM 465* Music Promotion and Production
   MCOM 499* Directed Study
   MUSC 358 The Business of Music and Arts Management

Group 2
   MCOM 387* Multi-Camera Studio Production
   MCOM 487* Advanced Video Production
   MCOM 488* Multi-Camera Field Production
   MCM 499* Directed Study

Radio Industry
   Choose four from:
   MCOM 150 Introduction to Radio
   MCOM 213 Audio Production
   MCOM 250 Announcement and Performance
   MCOM 313* Advanced Audio Production
   MCOM 316* Electronic Media Management
   MCOM 336* Broadcast-Cable Programming

Media Management
   Choose four from:
   CMST 225 Interviewing
   CMST 335 Organizational Communication
   CMST 345 Conflict Communication
   MCOM 316* Electronic Media Management
   MCOM 336* Broadcast-Cable Programming
   MGMT 251* Management of Organizations
   MGMT 355* Leadership and Human Behavior
   MGMT 357* Human Resource Management
   MUSC 358 The Business of Music and Arts Management

Multimedia Design
   ART 307* Computer Graphics
   and choose 9 hours (3 hours in one course and 6 hours in the other) from:
   ART 407* Advanced Graphic Design: Print
   ART 414* Advanced Graphic Design: Interactive Multimedia Design

Instructor:
   Hill

Associate Professors:
   Danzi, Whalen

Assistant Professors:
   Kice (Chair)

Professor:
   J. Lombardi, Phipps

*Course has prerequisites; consult the course description section of this catalog
† This program is intended to give a foundational background in some business aspects of MCOM, but is not intended as preparation for a professional career in business.

MAJOR

<table>
<thead>
<tr>
<th>Major</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Mass Communication</td>
<td>30-42</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>3-15</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>45</td>
</tr>
</tbody>
</table>
Mathematics

Major

Minor

Summary of Requirements for Major/Minor in Mathematics

1. Basic Courses (21 hours)
   - MATH 236 Calculus I (Core Skill 3)
   - MATH 237 Calculus II
   - MATH 238 Calculus III
   - MATH 315 Foundations of Mathematics
   - MATH 350 Linear Algebra I
   - MATH 491 Seminar in Mathematics (Capstone)

2. Electives (21 hours)
   - Select from courses at the 300 or 400 level, except MATH 340 Fundamental Concepts of Geometry or MATH 495 Internship in Mathematics. You must select at least one course from each of the following groups.

A. Geometry and Topology
   - MATH 440 Modern College Geometry
   - MATH 460 Introductory Topology

B. Analysis
   - MATH 425 Introduction to Real Analysis
   - MATH 426 Introduction to Complex Analysis

C. Algebra
   - MATH 451 Modern Higher Algebra
   - MATH 452 Linear Algebra II

D. Applied Mathematics
   - MATH 380 Introduction to Probability and Statistics
   - MATH 432 Differential Equations
   - MATH 436 Mathematical Physics
   - MATH 470 Mathematical Models and Applications
   - MATH 480 Probability and Statistics

Events Planning

Choose four from:
- CMST 102 Introduction to Human Communication
- CMST 122 Introduction to Public Speaking
- LEAD 101 Introduction to Leadership Studies
- MCOM 465 Music Promotion and Production
- MCOM 499 Directed Study
- MUSC 328 The Business of Music and Arts Mgmt.
- RECR 382 Program Planning
- RECR 384 Special Events Management

Web Management

- COSC 101 The Discipline of Computer Science (Tech. Fluency)
- COSC 120 Introduction to Cyberspace
- COSC 330 Web Design and Development
- COSC 345* The Internet & Multimedia Communication

Media Promotions

Choose four from:
- CMST 322 Presentational Communication
- MCOM 456 Creative Strategies in Adver. & Media Buying
- MCOM 465* Music Promotion and Production
- MCOM 499* Directed Study
- MKTG 361 Principles of Marketing
- MKTG 366* Consumer Behavior
- MUSC 358 The Business of Music and Arts Management
Summary of Requirements for Focus in Mathematical Sciences

1. Core Mathematics Courses: (3 hours)
   From among:
   - MATH 415 Foundations of Mathematics
   - MATH 425 Introduction to Real Analysis
   - MATH 440 Modern College Geometry
   - MATH 451 Modern Higher Algebra
   - MATH 461 History of Mathematics
   - MATH 465 Theory of Numbers
   - MATH 492 Internship Seminar

2. Applied Mathematics: (9 hours)
   From among:
   - MATH 380 Introduction to Probability and Statistics
   - MATH 426 Introduction to Complex Analysis
   - MATH 432 Differential Equations
   - MATH 436 Mathematical Physics
   - MATH 437 Combinatorics and Graph Theory
   - MATH 470 Mathematical Models and Applications
   - MATH 480 Probability and Statistics
   - MATH 492 Internship Seminar

3. Required Courses in Other Departments:

   Computer Science (7-8 hours)
   - COSC 240 Computer Science I
   - COSC 241 Computer Science II
   - COSC 350 Low-Level Programming Concepts
   - COSC 450 Programming Language Principles and Paradigms

   Science (3-4 hours)
   - PHYS 261 Principles of Physics I (GEP Group C) or
   - CHEM 441 Physical Chemistry I

Coordinator:
Marc Michael, Chair,
Department of Mathematics

You may elect to focus in Mathematical Sciences.
The Mathematical Sciences Focus is designed for Mathematics, Chemistry, and Physics majors.
You cannot major or minor in Mathematical Sciences.

Summary of Requirements for Double Major in Mathematics and Secondary Teacher Education

If you wish to complete a Maryland State-approved program in teaching secondary Mathematics, you must:
- Complete the BA/BS in Mathematics.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- Within the electives portion of the Mathematics major, you must select certain courses in order to qualify for Maryland State certification and to meet NCATE accreditation standards. These courses are listed below.

1. Basic Core Curriculum (21 hours)
   - MATH 236 Calculus I (Core Skill 3)
   - MATH 237 Calculus II
   - MATH 238 Calculus III
   - MATH 315 Foundations of Mathematics
   - MATH 350 Linear Algebra I
   - MATH 491 Seminar in Mathematics (Capstone)

2. Mathematics Teaching Certification Option Requirements (21 hours)
   - MATH 380 Introduction to Probability and Statistics
   - MATH 425 Real Analysis
   - Or MATH 426 Complex Analysis
   - MATH 437 Combinatorics and Graph Theory
   - MATH 440 Modern College Geometry
   - MATH 461 History of Mathematics
   - MATH 465 Theory of Numbers
   - MATH 451 Modern Higher Algebra
Music

Major and minor

Concentrations in:
- Vocal Performance
- Music Management

Track in:
- Instrumental Performance
- Music Studies

Teaching Certification Option

Associate Professor: M. Gallagher
Assistant Professors: Klickman (Chair), Reddan, Weber

- All students entering or re-entering the major are required to pass an audition in their primary performance area before being accepted as a music major. Students changing their primary performance area must re-audition before being re-accepted as a music major.

- You must choose a concentration, a track or the teaching certification option.

- Only courses in which you earn a grade of C or better will count towards satisfaction of major requirements.

Summary of Requirements for Major/Minor in Music

Major

Core Requirements: (47.5-49 hours)

1. Music Theory: (16 hours)
   MUSC 102 Theory I
   MUSC 103 Theory II (Tech. Fluency)
   MUSC 104 Aural Skills I
   MUSC 105 Aural Skills II
   MUSC 204 Theory III
   MUSC 205 Theory IV
   MUSC 206 Aural Skills III
   MUSC 207 Aural Skills IV

2. Music History & Literature: (9 hours)
   MUSC 110 Music Appreciation (GEP Group A)
   or MUSC 117 Music of Africa, Asia & the Americas (GEP Group A or F)
   MUSC 308 Music History I
   MUSC 309 Music History II
   MUSC 313 Music History III

3. Ensemble: (8 hours for performance specializations, 7 hours for music mgmt. and teaching cert.)
   Select from:
   MUSC 319 University Chorale
   MUSC 330 Wind Ensemble
   MUSC 336 Chamber Guitar Ensemble
   MUSC 370 Vocal Jazz Ensemble

4. Piano Proficiency: (0 hours)
   MUSA 415 Piano Proficiency Exam

5. Private Instruction: (12 hours)
   MUSA 116-123 Private Instruction
   and/or MUSA 356-363 Private Instruction

6. Recital Attendance: (4 hours for performance specializations, 3.5 hours for music mgmt and teaching cert.)
   MUSA 101 Student Recital Attendance

7. Sophomore Evaluation: (0 hours)
   MUSA 287 Sophomore Evaluation

Minor

Core Requirements: (23 hours)

1. Music Theory: (8 hours)
   MUSC 102 Theory I
   MUSC 103 Theory II (Tech. Fluency)
   MUSC 104 Aural Skills I
   MUSC 105 Aural Skills II

2. Music History & Literature: (6 hours)
   MUSC 308 Music History I
   MUSC 309 Music History II
   MUSC 313 Music History III

3. Ensemble: (3 hours)
   Select from:
   MUSC 319 University Chorale
   MUSC 330 Wind Ensemble
   MUSC 336 Chamber Guitar Ensemble
   MUSC 370 Vocal Jazz Ensemble

5. Private Instruction: (4 hours)
   MUSA 116-123 Private Instruction
   and/or MUSA 356-363 Private Instruction

6. Recital Attendance: (2 hours)
   MUSA 101 Student Recital Attendance

Summary of Requirements for Major/Minor in Music

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th>Hours Required in Music:</th>
<th>TEACHING CERT. OPTION</th>
<th>VOCAL PERFORM</th>
<th>MUSIC MGMT</th>
<th>MAJOR TRACK PERFORM</th>
<th>MINOR</th>
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<tbody>
<tr>
<td></td>
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<td>61.5</td>
<td>66</td>
<td>66.5-69.5</td>
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<td>37.5</td>
<td>15-24</td>
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<td>Total Hours Required:</td>
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<td>99</td>
<td>81-90</td>
<td>87.5-90.5</td>
<td>63</td>
<td>23</td>
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</table>
Summary of Requirements for the Teaching Certification Option in Music

1. Core Courses: (47.5 hours)
   Required for all music majors; listed above.

2. Recital Requirement: (1 hour)
   MUSA 490 Senior Recital (Capstone)

3. Other Required Courses for P-12 Teaching Certification: (51.5 hours)
   If you wish to complete a Maryland State approved program in teaching Music, you must:
   - Complete the following additional courses in Music:
     MUSA 108 Class Instruments I: Strings
     MUSA 208 Class Instruments II: Woodwinds
     MUSA 209 Class Instruments III: Brass
     MUSA 311 Class Instruments IV: Percussion
     MUSC 310 Basic Principles of Conducting I - Choral
     MUSC 410 Basic Principles of Conducting II - Instrumental
   - If your performing area is instrumental, you must complete 2 credit hours of MUSC 319 University Chorale
   - If your performing area is guitar, you must complete 2 credit hours of MUSC 319 University Chorale and 2 credit hours of MUSC 330 Wind Ensemble
   - If your performing area is vocal, you must complete MUSA 210 Diction
   - Meet the phase admissions requirements summarized in the Educational Professions section.
   - Complete the professional education sequence described in the Education: P-12 Programs.

4. Other Requirements for Vocal Performance Majors:

   1. Core Courses: (49 hours)
      Required for all music majors; listed above.

   2. Advanced Courses: (19-22 hours)
      MCOM 465 Music Promotion and Production
      MUSC 310 Basic Conducting I
      MUSC 390 Junior Recital
      MUSC 358 The Business of Music and Arts Management
      MUSC 492 Senior Project Paper (Capstone)
      MUSC 495 Internship in Music Management (6 or 9 hours)

   3. Required Courses in Other Departments:
      (Business Administration Minor) (21 hours)
      ACCT 211 Financial Accounting
      BUAD 100 Introduction to Business
    or BLAW 291 Legal Environment of Business
    or FINA 303 Principles of Finance
    or FINA 370 Corporate Finance
    or FINA 476 Financial Management
    MGMT 251 Management of Organizations
    MGMT 356 Leadership and Human Behavior
    or BMIS 320 Advanced Computer Applications in Business
    MKTG 361 Principles of Marketing
    ECON 200 Basic Economics (GEP Group D)
    or ECON 201/211 Principles of Economics-Macro (GEP Group D)

   4. Other Requirements for Vocal Performance Majors: (10 hours)
      MUSA 390 Junior Recital
      MUSA 490 Senior Recital (Capstone)

   5. Foreign Languages & Literature: (15-24 hours)
      Select one of the following options:
      a. A minor in Foreign Languages & Literature:
         The minor in French or Spanish consists of a minimum of 18 hours. Students minoring in a language who begin course work at the 100 level are required, through accelerated placement, to pay a fee of $10.00 per credit hour for the 211, 212 and 250 courses. The 250 course counts toward GEP Group B. If you have no background in French or Spanish, you will need to begin with the 101-102 sequence and complete up to 24 hours in language.

      b. Language Option
         Select 3 credits from
         MDFL 190 Italian
         MDFL 190 German
         SPAN 101 or FREN 101 and complete 12 credits from
         SPAN 102, 211, 212, 250 or FREN 102, 211, 212, 250

5. Capstone Experience: (1 hour)
   MUSC 493 Senior Research

Summary of Requirements for the Music Studies Track

1. Core Courses: (49 hours)
   Required of all music majors; as listed on p. 129 of current catalog.

2. Supplementary Course Requirements: (11 hours)
   Selected from:
   MUSA 213 Piano Pedagogy
   MUSC 305 Orchestration
   MUSC 310 Conducting I
   MUSC 346 The Opera
   MUSC 358 Business of Music and Arts Management
   MUSC 360 Special Topics in Music (up to 2 hours)
   MUSC 401 Form and Analysis
   MUSC 407 Counterpoint
   MUSC 499 Individual Research in Music (up to 4 credits)

3. Supplementary Lesson Requirements: (2 hours)
   MUSA 336-363 Private Instruction

4. Supplementary Ensemble Requirements: (2 hours)
   Selected from: MUSC 315, 321, 331, 335, 337, 339, 340 Ensembles

5. Capstone Experience: (1 hour)
   MUSC 493 Senior Research

Summary of Requirements for the Music Management Concentration

1. Core Courses: (47.5 hours)
   Required for all music majors; listed above.

2. Advanced Courses: (19-22 hours)
   MCOM 465 Music Promotion and Production
   MUSC 310 Basic Conducting I
   MUSC 390 Junior Recital
   MUSC 358 The Business of Music and Arts Management
   MUSC 492 Senior Project Paper (Capstone)
   MUSC 495 Internship in Music Management (6 or 9 hours)

3. Required Courses in Other Departments:
   (Business Administration Minor) (21 hours)
   ACCT 211 Financial Accounting
   BUAD 100 Introduction to Business
    or BLAW 291 Legal Environment of Business
    or FINA 303 Principles of Finance
    or FINA 370 Corporate Finance
    or FINA 476 Financial Management
    MGMT 251 Management of Organizations
    MGMT 356 Leadership and Human Behavior
    or BMIS 320 Advanced Computer Applications in Business
    MKTG 361 Principles of Marketing
    ECON 200 Basic Economics (GEP Group D)
    or ECON 201/211 Principles of Economics-Macro (GEP Group D)

4. Other Requirements for Vocal Performance Majors: (10 hours)
   MUSA 390 Junior Recital
   MUSA 490 Senior Recital (Capstone)

5. Foreign Languages & Literature: (15-24 hours)
   Select one of the following options:
   a. A minor in Foreign Languages & Literature:
      The minor in French or Spanish consists of a minimum of 18 hours. Students minoring in a language who begin course work at the 100 level are required, through accelerated placement, to pay a fee of $10.00 per credit hour for the 211, 212 and 250 courses. The 250 course counts toward GEP Group B. If you have no background in French or Spanish, you will need to begin with the 101-102 sequence and complete up to 24 hours in language.

   b. Language Option
      Select 3 credits from
      MDFL 190 Italian
      MDFL 190 German
      SPAN 101 or FREN 101 and complete 12 credits from
      SPAN 102, 211, 212, 250 or FREN 102, 211, 212, 250

   5. Capstone Experience: (1 hour)
      MUSC 493 Senior Research

Summary of Requirements for the Music Management Concentration
Nursing

RN to BSN Completion Program

Collaborative Transfer Program

Major

The RN to BSN Program is based on the American Association of Colleges of Nursing’s proposed Essentials of Baccalaureate Nursing Education. The program is approved by the Maryland Board of Nursing, the Maryland Higher Education Commission and the Commission on Collegiate Nursing Education (CCNE), and meets the requirements of the Maryland statewide nursing education articulation agreement.

The RN to BSN curriculum is designed to increase the registered nurse’s knowledge and skills in the areas of leadership, quality improvement, evidence-based nursing practice, nursing informatics, population-focused health promotion and disease prevention, interdisciplinary collaboration and professionalism. The program will prepare nurses to assume roles in leadership, complex clinical care coordination and community/public health, and serves as the academic foundation for graduate study.

The program is open to all registered nurses who meet the program admissions criteria, including an active, unencumbered RN license from within the United States. The program builds on the elements of Associate Degree nursing education. Nursing students concurrently enrolled in an Associate Degree in Nursing (ADN) program at a community college who meet the admission criteria (with the exception of RN licensure) are eligible to take RN-BSN courses at the discretion of the assigned advisor prior to licensure. Courses are delivered in a part-time, online format to maximize scheduling flexibility and maintain the student-faculty connection that is essential to academic success.

Program Goal

The RN to BSN Program prepares the registered nurse to be a professional health care practitioner who provides compassionate care that is based on scientific evidence and who serves as the link between the patient (individual, family, community or population) and the health care environment across the lifespan.

Program Objectives

The RN to BSN Program prepares the graduate to:

- Utilize critical thinking and creativity to address professional practice and patient care issues.
- Apply leadership concepts and collaborative strategies to the process of nursing care delivery.
- Utilize quality improvement and safety management principles in clinical nursing practice.
- Identify and understand basic elements of nursing research.
- Integrate scientific evidence with clinical judgment and patient preference to improve patient outcomes.
- Safely use information technology to improve patient care.
- Describe the ethical, legal, political and financial influences on the delivery of patient care.
- Demonstrate interpersonal communication skills and collaborative strategies that support the delivery of interdisciplinary, patient-centered care.
- Provide evidenced-based, preventative health care to families, communities and vulnerable populations in community-based settings.
- Demonstrate the knowledge, skills and attributes of professional nursing practice.

Summary of Requirements for Major in Nursing

General Education Program

All candidates for the Bachelor of Science in Nursing degree must complete a minimum of 41 credits in general education. Courses may be completed at FSU or another institution (except as noted). The FSU course number is specified below. Where a specific course is listed, this is a required course for nursing that meets both major and GEP requirements. Please note that most of the required GEP courses must be completed before enrolling in upper-division nursing courses.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td>Freshman Composition (1)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>Social Sciences Advanced Composition (2)</td>
<td>3</td>
</tr>
<tr>
<td>or ENGL 338</td>
<td>Technical Writing (2)</td>
<td></td>
</tr>
<tr>
<td>or ENGL 339</td>
<td>Scientific Writing (2)</td>
<td></td>
</tr>
<tr>
<td>MATH 109/110</td>
<td>Elements of Applied Probability &amp; Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>
## Modes of Inquiry

See the description of the FSU General Education Program in the catalog for a list of courses that meet each requirement.

**A. The Fine and Performing Arts**
- 3 hours

**B. The Humanities**
- 6 hours

**C. The Natural Sciences**
- CHEM 100 Chemistry and Society, 201 General Chemistry I or other approved 4 cr. chemistry* (1) 4 hours
- BIOL 321 Anatomy and Physiology I (articulated) (1) 4 hours

**D. The Social Sciences**
- PSYC 150 Introduction to Psychology (1) 3 hours
- SOCI 100 Introduction to Sociology (1) 3 hours

**E. The FSU Colloquia**
- IDIS 150 Freshman Colloquium or a 3-credit interdisciplinary community college course approved for GEP credit in the "Interdisciplinary and Emerging Issues" category 3 hours
- IDIS 350 Advanced Colloquium (2) 3 hours

**F. Identity and Difference**
- 3 hours

### Total General Education Hours
- 41 hours

(1) Course completed as part of Associate Degree in Nursing. These courses are prerequisites for all upper division nursing courses.

(2) Course must be completed at FSU or another four-year college at the upper-division level with a grade of C or better.

* Corequisite for FSU’s CHEM 201 is MATH 119 (College Algebra).

Advanced composition should be completed prior to or soon after beginning nursing courses.

### Additional Prerequisite Courses

Courses may be completed at ACM, FSU or another institution. FSU course number specified below.

- BIOL 322 Anatomy and Physiology II (1) 4 hours
- BIOL 304 Microbiology (1) 4 hours
- HEED 200 Nutrition 3 hours
- PSYC 208 Intro to Lifespan Development 3 hours

A Human Growth and Development course approved by the Program Coordinator. (1)

### Total Additional Hours
- 14 hours

(1) Course completed as part of Associate Degree in Nursing.

### Upper Division Credits

#### Total Hours for Unencumbered RN License
- 30 hours

Courses that must be completed at FSU**

1. Discipline core courses:
   - NURS 401 Health Assessment 3 hours
   - NURS 402 Nursing Research and Evidence-Based Practice 3 hours
   - NURS 403 Elements of the Professional Nursing Role 3 hours
   - NURS 404 Nursing Informatics (Tech. Fluency) 3 hours
   - NURS 405 Ethics in Contemporary Nursing Practice 3 hours
   - NURS 406 Leadership for Quality and Safety 3 hours
   - NURS 491 Population-Focused Nursing Practice 3 hours
   - NURS 495 Population-Focused Nursing Practice Practicum 3 hours
   - NURS 496 Capstone Project 2 hours

2. Courses outside the discipline:
   a. Required:
   - MGMT 356 Leadership and Human Behavior 3 hours
b. Electives:  
(choose one of the following):  
- CMST 300 Interpersonal Communication  
- HEED 418 Current Issues in Health  
- HLTH 330 Epidemiology of Health  
- HLTH 430 Methods and Materials for Health Promotion  
- HLTH 435 Health Promotion Programming  
- MGMT 359 Quality Management  
- MGMT 405 Business Ethics and Social Responsibility  
- NURS 407 Healthcare Finance  
- PSYC 386 Drugs and Human Behavior  
- PSYC 387 Addictions and Treatment Delivery  
- PSYC 388 Treatment Issues and Theory in Addictions  
- PSYC 409 Human Learning and Cognition  
- PSYC 430 Health Psychology  
- PSYC 485 Behavioral Approaches to Human Problems  
- SOCI 305 Racial and Cultural Minorities (GEP Group F)  
- SOCI 367 Sociology of Medicine  
- SOWK 468/SOCI 468 Sociology of Later Life  

Total Hours in Major: 32 hours  
** Only courses in which a grade of C or better is earned may count towards satisfaction of upper-level major requirements.

## Philosophy

### Major

<table>
<thead>
<tr>
<th>Major</th>
<th>MINOR</th>
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<tr>
<td>Hours Required in Philosophy:</td>
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<td>Hours Required in Other Departments:</td>
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<tr>
<td>Total Hours Required:</td>
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</table>

### Minor

<table>
<thead>
<tr>
<th>Minor</th>
<th>MAJOR</th>
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<tbody>
<tr>
<td>Hours Required in Philosophy:</td>
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<tr>
<td>Hours Required in Other Departments:</td>
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</tr>
<tr>
<td>Total Hours Required:</td>
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</tr>
</tbody>
</table>

## Summary of Requirements for Major/Minor in Philosophy

### Major

1. **Introductory Level Courses:** (6 hours)  
   Select two from:  
   - PHIL 101 Introduction to Philosophy (GEP Group B)  
   - PHIL 102 Contemporary Ethical Problems (GEP Group B)  
   - PHIL 105 Logic  
   - PHIL 111 Honors: Introduction to Philosophy (GEP Group B)  
   - PHIL 112 Honors: Contemporary Ethical Problems (GEP Group B)  
   - PHIL 201 Ethics  
   - PHIL 205 Logic

2. **History of Philosophy:** (6 hours)  
   - PHIL 202 History of Philosophy: Ancient & Medieval  
   - PHIL 203 History of Modern Philosophy

3. **Distribution Within Department:** (18 hours)  
   Select 15 hours from among courses at the 300 or 400 level, with the exception of PHIL 492 and 495 (the internship), which cannot be used to satisfy the requirements for the major AND select one 400-level Capstone Seminar.

### Minor

1. **Introductory Level Courses:** (6 hours)  
   Select two from:  
   - PHIL 101 Introduction to Philosophy (GEP Group B)  
   - PHIL 102 Contemporary Ethical Problems (GEP Group B)  
   - PHIL 111 Honors: Introduction to Philosophy (GEP Group B)  
   - PHIL 112 Honors: Contemporary Ethical Problems (GEP Group B)  
   - PHIL 201 Ethics  
   - PHIL 205 Logic

2. **Distribution within Department:** (12 hours)  
   Select at least nine hours from courses at the 300 or 400 level, with the exception of PHIL 492 and 495 (the internship), which cannot be used to satisfy the requirements for the minor.
Physics

Major

Minor

Tracks in:

- TRADITIONAL PHYSICS
- ENGINEERING PHYSICS

Professors:
Deng-Luzader, J. Hoffman, Latta, Plitnik, O. Soysal, Wang

Associate Professors:
Doyle, Eltayeb, E. Moore (Chair), Tidrow

Assistant Professors:
Norouzi, Speights, Wondmagegn

You may not use courses listed under the heading Physical Science to satisfy the requirements of a major or minor in Physics.

For engineering programs offered by the Dept. of Physics and Engineering, see the Engineering section of this catalog.

The Traditional Physics track is recommended if you plan to attend graduate school.

Summary of Requirements for Major/Minor in Physics

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
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<tbody>
<tr>
<td>Hours Required in Physics:</td>
<td>39</td>
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<tr>
<td>Hours Required in Other Departments:</td>
<td>22</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>61</td>
</tr>
</tbody>
</table>

Summary of Requirements for Traditional Physics Track

1. Courses required for all majors: (51-52 hours)
Listed above.

2. Advanced Courses in the Department: (9 hours)
PHYS 417 Quantum Physics
PHYS 420 Introduction to Computational Physics
One additional physics elective at the 300 level or above or CHEM 304.

Summary of Requirements for Engineering Physics Track

1. Courses required for all majors: (51-52 hours)
Listed above.

2. Elective Hours in the Department: (9 hours)
With permission of the Department Chair, as many as 6 credits of mechanical engineering or electrical engineering at the 200 level or above may be applied.
Summary of Requirements for Double Major in Secondary Teacher Education

If you wish to complete a Maryland State-approved program in teaching secondary physics, you must:

- Complete the BA/BS in Physics in any concentration.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- In addition to the regular major requirements, you must take coursework in biology, chemistry, and earth science in order to qualify for Maryland State certification in science and to meet NCATE accreditation standards. See the Secondary Teacher Education Program Coordinator for details.

Summary of Requirements for Major/Minor in Political Science

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Political Science:</td>
<td>37</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
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<tr>
<td>Total Hours Required:</td>
<td>37</td>
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</table>

Professors:
Andorfer, Bowman, Hartlaub, S. Johnson, D. Lewis, O’Rorke, Simpson, Twing (Chair)
Lecturer:
Magrath

- Only courses in which you earn a grade of C or better will count towards satisfaction of major or minor requirements.
- The Department strongly encourages majors to consider the internship option.
- POSC 492 counts as elective credit toward POSC major; POSC 495 counts as general elective credit.
- The Department considers it essential that majors take POSC 250 Research Methods before enrolling in 300 and 400 level POSC courses.
- Upon completion of 75 credit hours, all majors must enroll in POSC 490 Capstone Seminar.

*Seminar courses may be applicable to the distribution requirements with the prior approval of the department chair.

GROUP I American Politics
- POSC 321 American State & Local Politics
- POSC 322 Public Administration
- POSC 324 Criminal Justice Systems in Action
- POSC 352 Interest Groups
- POSC 361 Public Opinion and Political Behavior
- POSC 362 Political Parties and Elections
- POSC 363 Media and Politics
- POSC 365 Women and Politics
- POSC 421 American Legislative Politics
- POSC 422 American Constitutional Law I
- POSC 423 American Constitutional Law II
- POSC 427 The American Presidency
- POSC 462 Personality and Politics

GROUP II Comparative Politics
- POSC 330 Politics of Africa
- POSC 331 Politics of Latin America
- POSC 332 Politics of Middle East
- POSC 333 Politics of Europe
- POSC 336 Politics of Food
- POSC 431 Russian Politics
- POSC 435 Model Organization of American States

GROUP III Distribution within Department
- POSC 425 Research Methods
- POSC 490 Capstone Seminar in Political Science

GROUP IV Free Elective Hours in Department (15 hours)
- Any courses in the above subfields not already taken and/or POSC 492 Internship Seminar (3 or 6 credits) and/or POSC 488 Comparative Legal Systems
- POSC 498 Readings in Political Science

1. Introductory Level Courses: (6 hours)
- POSC 110/112 Introduction to American Politics (GEP Group D)
- POSC 113/114 Introduction to World Politics (GEP Group D) or POSC 131 Introduction to Comparative Politics (GEP Group D or F)

2. Research Methods: (3 hours)
- POSC 250 Research Methods

3. Capstone Seminar (1 hour)
- POSC 490 Capstone Seminar in Political Science

4. Distribution within Department: (15 hours)
- Select one course in each of the following five groups.*
Major (continued)

GROUP III International Relations
POSC 341 International Organization
POSC 342 Foreign Policy of the United States
POSC 441 Theory and Practice of International Relations
POSC 442 National Security Policy
POSC 443 Transnational Terrorism and Counter-Terrorism

GROUP IV Public Administration and Policy
POSC 355 Public Budgeting
POSC 358 American Public Policy
POSC 450 Environmental Public Policy
POSC 455 Public Program Evaluation

GROUP V Political Theory
POSC 370 Introduction to Political Thought
POSC 470 Seminar in Political Thought
POSC 471 American Political Thought

5. Free Elective Hours in Department:
(12 hours)
Any courses from the above subfields not already taken and/or:
POSC 492 Internship Seminar (3 or 6 credits)
and/or POSC 488 Comparative Legal Systems
POSC 498 Readings in Political Science

Summary of Requirements for Double Major in Secondary Teacher Education
If you wish to complete a Maryland State-approved program in teaching secondary social studies, you must:

- Complete the BA/BS in political science.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- In addition to the regular major requirements, you must take coursework in economics, geography, history, and social science in order to qualify for Maryland State certification in social studies and to meet NCATE accreditation standards. See the Secondary Teacher Education Program Coordinator for details.
Psychology

Major

Minor

Internship Option

Child and Family Psychology Emphasis

Leadership in Psychology Emphasis

Professors:
Bensley, Bradley, Edwards, Herzog, Peterson, Southerly

Associate Professors:
Bernhardt, J. Flinn (Chair), E. Kennedy, Murtagh, Redmond-Matz

Assistant Professors:
Masciocchi, Morhead

• Majors may elect an internship option and/or any of the following emphases: Addictions Counseling, Child & Family, Leadership in Psychology (invitation only for Leadership).

• Majors must earn a grade of C or better in ENGL 101, their math Core Skills course, ENGL 308/312, and BIOL 109/149 to satisfy major requirements.

• Only psychology courses in which you earn a grade of C or better will count towards satisfaction of major and minor requirements, with the exception that you must pass PSYC 197 and PSYC 397 to satisfy major requirements.

• The psychology major may be completed on the Frostburg campus or at the University System of Maryland - Hagerstown.

Summary of Requirements for Major/Minor in Psychology

<table>
<thead>
<tr>
<th>Requirement</th>
<th>MAJOR</th>
<th>MINOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Foundation Courses: (9 hours)</td>
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<td></td>
</tr>
<tr>
<td>PSYC 150 General Psychology</td>
<td>39</td>
<td>18</td>
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<tr>
<td>or PSYC 151 Honors: General Psychology (GEP Group D)</td>
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<tr>
<td>PSYC 201 Research Methods in Psychology</td>
<td>7</td>
<td>0</td>
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<tr>
<td>PSYC 301 Statistical Methods in Psychology</td>
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<tr>
<td>2. Fundamental Courses: (6 hours)</td>
<td></td>
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<tr>
<td>PSYC 155 Critical Thinking &amp; Scientific Inquiry</td>
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<tr>
<td>PSYC 197 Introduction to the Profession of Psychology</td>
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<tr>
<td>PSYC 397 Career Planning in Psychology</td>
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<tr>
<td>3. Courses in Core Areas: (12 hours)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one course in each of four groups.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROUP A Biological Bases</td>
<td></td>
<td></td>
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<tr>
<td>PSYC 306 Sensation and Perception</td>
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<tr>
<td>PSYC 386 Drugs and Human Behavior</td>
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<td>PSYC 420 Physiological Psychology</td>
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<td>PSYC 430 Health Psychology</td>
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<tr>
<td>GROUP B Learning and Cognition</td>
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<tr>
<td>PSYC 345 Animal Learning and Cognition</td>
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<td>PSYC 409 Human Learning and Cognition</td>
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<tr>
<td>PSYC 485 Behavioral Approaches to Human Problems</td>
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<tr>
<td>GROUP C Developmental Changes Across the Lifespan</td>
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<tr>
<td>PSYC 208 Introduction to Lifespan Development</td>
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<tr>
<td>PSYC 210 Child Development</td>
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<tr>
<td>PSYC 212 Adolescent and Adult Development</td>
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<tr>
<td>GROUP D Sociocultural</td>
<td></td>
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<tr>
<td>PSYC 314 Theories of Personality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 317 Abnormal Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 318 Social Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Diverse Populations Courses: (3 hours)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 214 Introduction to Geropsychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 220 Psychology of Women (GEP Group F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 270 Psychological Perspectives of Human Sexuality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 325 African American Psychology (GEP Group F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 404 Psychology of the Exceptional Child</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 489 Abnormal Child Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Applied Courses: (3 hours)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 340 Forensic Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 360 Industrial/Organizational Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 387 Addictions Treatment Delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 388 Treatment Issues and Theory in Addictions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 394 Learning Mentor in Psychology Field Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 408 Tests and Measurements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSYC 410 Introduction to Counseling</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>MAJOR</th>
<th>MINOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Psychology:</td>
<td>39</td>
<td>18</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>46</td>
<td>18</td>
</tr>
</tbody>
</table>

*If a research methods course from another department is substituted for PSYC 201, then you must complete an additional psychology course (15 hours total) from the list above. Thus, the completion of the minor requires you to take a minimum of 18 hours in PSYC.
Major (continued)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 445</td>
<td>Research Applications in Animal Behavior and Cognition</td>
</tr>
<tr>
<td>PSYC 450</td>
<td>Multicultural Counseling Issues</td>
</tr>
<tr>
<td>PSYC 488</td>
<td>Environmental Psychology</td>
</tr>
</tbody>
</table>

6. Elective Hours in Department: (3 hours)

1 additional course in Psychology, including courses listed in the electives section or any additional course from Core Areas, Diverse Populations, or Applied Courses.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 213</td>
<td>Psychology of Adjustment</td>
</tr>
<tr>
<td>PSYC 250</td>
<td>Death and Dying</td>
</tr>
<tr>
<td>PSYC 290</td>
<td>Psychological Issues and Practices</td>
</tr>
<tr>
<td>PSYC 303</td>
<td>Psychology of Couples</td>
</tr>
<tr>
<td>PSYC 385</td>
<td>Group Processes</td>
</tr>
<tr>
<td>PSYC 440</td>
<td>Survey of Family Psychology and Intervention Issues</td>
</tr>
<tr>
<td>PSYC 490</td>
<td>Special Topics in Psychology</td>
</tr>
<tr>
<td>PSYC 491</td>
<td>Seminar in Psychology</td>
</tr>
<tr>
<td>PSYC 498</td>
<td>Readings in Psychology</td>
</tr>
<tr>
<td>PSYC 499</td>
<td>Psychology Projects</td>
</tr>
</tbody>
</table>

7. Capstone/Senior Integrative Experience: (3 hours minimum)

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 470</td>
<td>Research Methods Applications</td>
</tr>
<tr>
<td>PSYC 481</td>
<td>History and Systems of Psychology</td>
</tr>
<tr>
<td>PSYC 492/495</td>
<td>Internship Option</td>
</tr>
<tr>
<td>PSYC 497</td>
<td>Senior Seminar</td>
</tr>
</tbody>
</table>

8. Required Courses in Other Departments (7 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 109</td>
<td>Human Biology and the Environment or BIOL 149 General Biology</td>
</tr>
<tr>
<td>ENGL 308</td>
<td>Social Sciences Advanced Composition or ENGL 312* Advanced Composition (Core Skill 2)</td>
</tr>
</tbody>
</table>

Requirements for Internship Option

1. Complete the Psychology major - described above.
   You must have a minimum 3.0 grade point average in the major; or if your psychology GPA is between 2.75 and 3.0, you must pass a comprehensive examination covering all areas of psychology.

2. Required Background in Psychology:
   Pass a departmental ethics examination and complete specific courses required for different types of internships. (See the department guide.)

3. Internship Orientation Meetings:
   Attend 2 internship orientation meetings: 1 at least 2 semesters before interning, and 1 in the semester preceding the internship.

4. Complete a resumé and an internship proposal.

5. Complete PSYC 495 Internship in Psychology with a grade of P and PSYC 492 Internship Seminar with a C or better (Capstone).

Requirements for Child and Family Psychology Emphasis

1. Complete Psychology major - described above.

2. Required Coursework in Psychology:
   Please be aware that many of the required courses have prerequisites. Additionally, PSYC 489 must be taken BEFORE PSYC 492/495 if you select the internship under “D” as your 400 level learning experience (12 hours minimum):
   (May be used to satisfy group and elective requirements for the major above)
   A) PSYC 150/151 General Psychology
   B) PSYC 208 Introduction to Lifespan Development or PSYC 210 Child Development or PSYC 212 Adolescence and Adulthood
   C) PSYC 489 Abnormal Child Psychology
   D) One of the following 400 level learning experiences:
      PSYC 404 Psychology of the Exceptional Child
      PSYC 440 Survey of Family Psychology and Intervention Issues
      PSYC 485 Behavioral Approaches to Human Problems
      PSYC 490 Special Topics in Psychology involving children and/or adolescents
      PSYC 492/495 Internship in Psychology involving children and/or adolescents
      PSYC 498 Readings in Psychology involving children and/or adolescents
      PSYC 499 Psychology Projects involving research concerning children and/or adolescents
Leadership in Psychology

Emphasis

Coordinator:
Megan Bradley, Professor, Department of Psychology

- The Leadership in Psychology Emphasis provides you the opportunity to gain valuable knowledge and experience that employers and graduate programs seek in applicants. It includes coursework on the best teaching/learning practices and leadership theories in psychology. In the field experience course, you will apply these skills by serving as a learning mentor for students enrolled in General Psychology.
- You must apply for acceptance into the field experience course (PSYC 394) prior to enrolling in the emphasis.

1. Enroll at Frostburg State University as a degree-seeking student.

2. Complete a minimum of 15 credit hours distributed as follows:

   a. Prerequisite Course (3 hours)
   PSYC 150/151 General Psychology (GEP Group D)

   b. Psychology Courses Related to Group Leadership (3 hours)
   Select one of the following:
   PSYC 385 Group Processes
   PSYC 314 Theories of Personality
   PSYC 318 Social Psychology
   LEAD 201 Leadership Theories and Practices

   c. PSYC 394 Learning Mentor in Psychology Field Experience (3 hours)
   You must apply for approval and receive permission from the department to enroll; thus, only those students who are approved to enroll in PSYC 394 can complete this emphasis. Applications and a list of requirements for enrollment are available in the Department of Psychology. A grade of C or better is required.

   d. Electives (6 hours)
   Select any course(s) listed under b. above that were not used to meet the Group Leadership requirement and/or enroll in PSYC 394 for an additional 3 to 6 credits (reapplication and departmental approval are required).

3. Attendance at a Child and Family Psychology Emphasis Orientation Meeting
   Attend at least one child and family orientation meeting in a semester prior to taking PSYC 489 Child and Adolescent Disorders.

4. Recommended Course:
   PSYC 303 Psychology of Couples

Requirements for the Emphasis in Addictions Counseling and for state certification in Alcohol and Drug Counseling are listed under Addictions Counseling this catalog.

Summary of Requirements for Double Major in Secondary Teacher Education
If you wish to complete a Maryland State-approved program in teaching secondary social studies, you must:

- Complete the BA/BS in psychology.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- In addition to the regular major requirements, you must take coursework in economics, geography, history, political science and social science in order to qualify for Maryland State certification in social studies and to meet NCATE accreditation standards. See the Secondary Teacher Education Program Coordinator for details.
Public Administration

Emphasis

The emphasis in public administration is open to:
- degree-seeking students in any major who would like to explore the public sector as a possible area of future employment and
- non-degree seeking members of the community who would like to obtain employment in the public sector or who already work in public administration and desire to upgrade their skills.

Summary of Requirements for Emphasis in Public Administration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSC 110</td>
<td>Introduction to American Politics</td>
</tr>
<tr>
<td>POSC 323</td>
<td>Public Administration</td>
</tr>
<tr>
<td>POSC 355</td>
<td>Public Budgeting</td>
</tr>
<tr>
<td>POSC 455</td>
<td>Public Program Evaluation</td>
</tr>
</tbody>
</table>

Total Hours Required: 12

Coordinator:
John O’Rorke, Professor, Department of Political Science

Public Relations

Minor

Summary of Requirements for Minor in Public Relations

<table>
<thead>
<tr>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Courses in Communication Studies: (6 hours)</td>
</tr>
<tr>
<td>CMST 300 Interpersonal Communication</td>
</tr>
<tr>
<td>or CMST 322 Presentational Communication</td>
</tr>
<tr>
<td>CMST 335 Organizational Communication</td>
</tr>
<tr>
<td>2. Courses in English: (6 hours)</td>
</tr>
<tr>
<td>ENGL 336 Journalistic Writing</td>
</tr>
<tr>
<td>ENGL 436 Advanced News and Feature Writing</td>
</tr>
<tr>
<td>3. Courses in Other Departments: (12 hours)</td>
</tr>
<tr>
<td>ART 207 Graphic Design (Tech. Fluency)</td>
</tr>
<tr>
<td>ART 235 Photography</td>
</tr>
<tr>
<td>MCOM 287 Introduction to Video Production</td>
</tr>
<tr>
<td>MCOM 325 Seminar in Public Relations</td>
</tr>
<tr>
<td>or MKTG 361 Principles of Marketing</td>
</tr>
</tbody>
</table>

Recommended Additional Courses:
The following courses are recommended but not required for the minor in Public Relations. These courses provide valuable background for the course work in the minor:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 104</td>
<td>Two-dimensional Design</td>
</tr>
<tr>
<td>BUAD 100</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>CMST 122</td>
<td>Introduction to Public Speaking</td>
</tr>
<tr>
<td>ECON 200</td>
<td>Basic Economics (GEP Group D)</td>
</tr>
</tbody>
</table>

Coordinator:
Andy Duncan, Associate Professor, Department of English

Participating Faculty:
Professors: J. Lombardi (Communication)

Associate Professors: A. Duncan (English), Ewers (English), Herzfeld (Visual Arts), Ruminiski (Communication), Ye (Marketing & Finance)

Assistant Professors: Dean (Marketing & Finance), Hein (Visual Arts),

You cannot major in Public Relations.
Secure Computing and Information Assurance

Major

<table>
<thead>
<tr>
<th>Hours Required in Computer Science &amp; Secure Computing:</th>
<th>MAJOR</th>
<th>MINOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>61</td>
<td>20</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>12-13</td>
<td>0</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>73-74</td>
<td>20</td>
</tr>
</tbody>
</table>

Program Objectives and Outcomes

Problem Solving and Critical Thinking. Solve problems by creating secure computing and information assurance environments, analyzing computing environments and implementing policies and practices to guarantee secure computing and information assurance environments. The student will be able to:

- Apply programming and system management techniques to address secure computing and information assurance problems
- Perform critical analyses of the impacts of decisions
- Participate in forensic analysis of hardware, software and systems

Communication and Interpersonal Skills. Use written, oral and electronic methods for effective communication. The student will be able to:

- Document all aspects of a system precisely and clearly
- Document and communicate organizational secure computing and information assurance strategies, practices and policies
- Use written, oral, and electronic communication to convey technical information effectively
- Work cooperatively in teams and with others

Ethical and Professional Responsibilities. Discern and articulate the impact of secure computing and information assurance on society. The student will be able to:

- Determine the economic and organizational effects of secure computing and information assurance on global society
- Recognize important legal issues and demonstrate appropriate social responsibilities in secure computing and information assurance
- Demonstrate an awareness of the codes of professional ethics in secure computing and information assurance
- Plan for and ensure the security, privacy and integrity of data
- Recognize the need for continuing professional development

Summary of Requirements for Major/Minor in Secure Computing & Information Assurance

Major

1. Core Courses: (25 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 101</td>
<td>The Discipline of Computer Science (Tech. Fluency)</td>
</tr>
<tr>
<td>SCIA 103</td>
<td>Foundations of Secure Computing and Information Assurance</td>
</tr>
<tr>
<td>SCIA 120</td>
<td>Introduction to Secure Computing and Information Assurance</td>
</tr>
<tr>
<td>SCIA 210</td>
<td>Introduction to Cyber Law</td>
</tr>
<tr>
<td>COSC 240</td>
<td>Computer Science I</td>
</tr>
<tr>
<td>COSC 241</td>
<td>Computer Science II</td>
</tr>
<tr>
<td>SCIA 340</td>
<td>Secure Databases</td>
</tr>
<tr>
<td>SCIA 489</td>
<td>Capstone Course</td>
</tr>
</tbody>
</table>

Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 101</td>
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</tr>
<tr>
<td>SCIA 103</td>
<td>Foundations of Secure Computing and Information Assurance</td>
</tr>
<tr>
<td>SCIA 120</td>
<td>Introduction to Secure Computing and Information Assurance</td>
</tr>
<tr>
<td>COSC 240</td>
<td>Computer Science I</td>
</tr>
<tr>
<td>SCIA 370</td>
<td>Security Policy and Assessment</td>
</tr>
</tbody>
</table>

One additional three-credit Secure Computing & Information Assurance course at the 300-level or above
## Major

2. **Required Advanced Courses**: (27 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 331</td>
<td>Fundamentals of Computer Networks</td>
</tr>
<tr>
<td>SCIA 325</td>
<td>Software Security Engineering</td>
</tr>
<tr>
<td>SCIA 335</td>
<td>Network Security</td>
</tr>
<tr>
<td>SCIA 360</td>
<td>Operating System Security</td>
</tr>
<tr>
<td>SCIA 370</td>
<td>Security Policy and Assessment</td>
</tr>
<tr>
<td>SCIA 460</td>
<td>Cloud Computing and Security</td>
</tr>
<tr>
<td>SCIA 470</td>
<td>Computer and Network Forensics I</td>
</tr>
<tr>
<td>SCIA 471</td>
<td>Computer and Network Forensics II</td>
</tr>
<tr>
<td>SCIA 472</td>
<td>Hacking Exposed and Incident Response</td>
</tr>
</tbody>
</table>

3. **Other Required Courses**: (12–13 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST 102/112</td>
<td>Introduction to Human Communication</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Technical Writing (Core Skill 2)</td>
</tr>
<tr>
<td>MATH 109/110</td>
<td>Elements of Applied Probability &amp; Statistics (Core Skill 3)</td>
</tr>
<tr>
<td></td>
<td>or MATH 380 Intro. To Probability &amp; Statistics</td>
</tr>
<tr>
<td>MATH 220</td>
<td>Calculus for Applications I</td>
</tr>
<tr>
<td></td>
<td>or MATH 236 Calculus I (Core Skill 3)</td>
</tr>
</tbody>
</table>

4. **Electives**: (9 hours)

A minimum of 9 hours in at least three courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COSC 305</td>
<td>Computer Ethics</td>
</tr>
<tr>
<td>ITEC 442</td>
<td>Electronic Commerce</td>
</tr>
<tr>
<td>SCIA 425</td>
<td>Software Testing and Assurance</td>
</tr>
<tr>
<td>SCIA 435</td>
<td>Access Control</td>
</tr>
<tr>
<td>SCIA 480</td>
<td>Applied Cryptography</td>
</tr>
<tr>
<td>SCIA 485</td>
<td>Emerging Issues and Cyber Warfare</td>
</tr>
<tr>
<td>SCIA 491</td>
<td>Seminar in Secure Computing and Information Assurance</td>
</tr>
<tr>
<td>SCIA 494</td>
<td>Field Experience in Secure Computing and Information Assurance</td>
</tr>
<tr>
<td>SCIA 499</td>
<td>Individual Problems in Secure Computing and Information Assurance</td>
</tr>
</tbody>
</table>

## Minor

2. **Required Advanced Courses**: (27 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
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3. **Other Required Courses**: (12–13 hours)

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<td>SCIA 494</td>
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</tr>
<tr>
<td>SCIA 499</td>
<td>Individual Problems in Secure Computing and Information Assurance</td>
</tr>
</tbody>
</table>
Social Work

Major

The major in Social Work is designed to prepare you for generalist practice. It is built upon a liberal arts foundation and provides you with the knowledge, values, and skills needed to help individuals, families, groups, organizations and communities.

Content in the major forms the foundation for professional practice. The curriculum covers values and ethics, diversity, social and economic justice, populations-at-risk, human behavior and the social environment, social welfare policy and services, social work practice, research and field practicum. All students are required to complete a full-time internship which constitutes the last semester of the senior year.

Graduates with a major in Social Work may begin professional practice in a variety of fields including mental health, aging, family and children’s services, health care, addictions, juvenile and adult corrections, developmental disabilities, and community planning and development.

The Social Work program is accredited by the Council on Social Work Education (CSWE). Graduates of the program are eligible to apply to take state social work licensure exams at the baccalaureate level and to compete for employment positions where such a license is required. In addition, qualified graduates may also apply for advanced standing in graduate schools of social work which allows for completion of a Master’s degree in less time than it would otherwise take. Contact the Department Chair for further information.

Requirements for Admission to the Social Work Program

Applicants must meet the following admissions requirements in order to be accepted into and complete the Social Work program. Enrollment in the program is controlled by the number of slots available in the program at the time of admission. Admissions decisions are based on a competitive process. Application deadlines for all students, including transfer students, are established each semester by the program and publicly announced by the department.

Admission Requirements

1. Completion of at least 30 credit hours.
2. Cumulative GPA of at least 2.3 (or recommendation of faculty member).
3. Completion of a declaration of major form.
4. Completion of an application to the Social Work program which includes a self statement and three letters of reference. Application packets are available from the department.
5. Completion of SOWK 370 with a grade of C or better.
6. Approval of the Social Work Department Admissions Committee (which may require a personal interview with the Social Work faculty). The Admissions Committee may award special provisional admission.

Graduation Requirements

1. Completion of SOWK 492 (Capstone) with a grade of C or better and SOWK 495 with a grade of P.
2. Cumulative GPA of at least 2.3 both overall and in courses required for the major.
3. Meet program performance standards set by the department as measured by a standardized exit exam. Students who do not successfully meet these standards will be given additional opportunities to repeat the exam but only at their own expense.
4. Completion of an exit interview with the Social Work faculty.

Dismissal Policy

The following constitute grounds for dismissal from the Social Work program:

1. Inability to meet the academic requirements of the program
2. Failure to address and correct deficiencies in competencies cited at last assessment review
3. Violations of the National Association of Social Workers’ Code of Ethics (Copies of the Code are available from the Department of Social Work.)
4. Violations of FSU’s Student Code of Conduct as outlined in the Pathfinder which would result in a referral to the University’s Judicial System

A grievance procedure for protecting students’ rights to due process is outlined in the Social Work Student Handbook available from the Department of Social Work.
Summary of Requirements for Major in Social Work

Major

1. Social Work Courses: (48 hours)
   SOWK 305 Racial and Cultural Minorities (GEP Group F)
   SOWK 310 Statistics for Social Science
   SOWK 311 Basic Research Methods
   SOWK 370 Introduction to Social Welfare and Social Work
   SOWK 371 Social Policy
   SOWK 375 Human Behavior and the Social Environment I
   SOWK 377 Human Behavior and the Social Environment II
   SOWK 379 Foundations for Generalist Practice
   SOWK 470 Generalist Practice with Individuals and Families
   SOWK 471 Generalist Practice with Communities and Organizations
   SOWK 473 Generalist Practice with Groups
   SOWK 492 Social Work Seminar (Capstone)
   SOWK 495 Internship in Social Work

2. Courses in Other Departments: (19 hours)
   SOCI 100 or 111 Introduction to Sociology (GEP Group D)
   SOCI 200 Social Problems
   COSC 100 Introduction to Computer Science (Tech. Fluency)
   PSYC 150 or 151 General Psychology (GEP Group D)
   POSC 110 or 112 Introduction to American Politics (GEP Group D)
   BIOL 109 Human Biology and the Environment (GEP Group C)

* A seminar course (491) may be applicable to the Distribution Requirements with the prior approval of the department; only 1 seminar may be used in this manner.

Summary of Requirements for Major/Minor in Sociology

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Sociology:</td>
<td>36</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>3</td>
</tr>
<tr>
<td>Total Hours Required:</td>
<td>39</td>
</tr>
</tbody>
</table>

Sociology

Major

1. Basic Courses: (6 hours)
   SOCI 100/111 Intro. to Sociology (GEP Group D)
   SOCI 200 Social Problems

2. Methods and Theory (15 hours)
   SOCI 310 Statistics for Social Science
   SOCI 311 Basic Research Methods
   SOCI 450 Classical Sociological Theory
   SOCI 451 Contemporary Sociological Theory
   SOCI 491 Seminar in Sociology (Capstone)

3. Distribution within Department: (15 hours)
   At least nine hours must be at the 300 or 400 level

4. Internship Requirement:
   optional

5. Required Course in Other Departments: (3 hours)
   COSC 100 Intro. to Computer Science (Tech. Fluency)

Minor

1. Basic Courses: (6 hours)
   SOCI 100/111 Intro. to Sociology (GEP Group D)
   SOCI 200 Social Problems
   or SOCI 203 Sociology of Deviant Behavior

2. Methods and Theory (0 hours)

3. Distribution within Department: (12 hours)
   At least six hours must be at the 300 or 400 level

4. Internship Requirement: (0 hours)

5. Required Courses in Other Departments: (0 hours)

Professors:
Moore (Chair), Russell

Associate Professors:
Hartman-Linck, McMullen, Rogers Thomas

Assistant Professor:
W. Li, Moorehead

* For departmental courses above the 100 level in the Sociology major, only courses in which a grade of C or better is earned will count toward satisfaction of major requirements.
* The Sociology major may be completed on the Frostburg campus or at the University System of Maryland - Hagerstown.
* The department also offers a minor in cultural anthropology.
* Internship opportunities are available.
Summary of Requirements for Double Major in Secondary Teacher Education

If you wish to complete a Maryland State-approved program in teaching secondary social studies, you must:

- Complete the BA/BS in sociology.
- Declare a second major in Secondary Teacher Education. See the Secondary Teacher Education Program Coordinator for details.
- In addition to the regular major requirements, you must take coursework in economics, geography, history, political science and social science in order to qualify for Maryland State certification in social studies and to meet NCATE accreditation standards. See the Secondary Teacher Education Program Coordinator for details.
Summary of Requirements for Minor in Sustainability Studies

Minor

1. Core Courses: (6 hours)
   - IDIS/SUST 155 Introduction to Sustainability Studies
   - SUST 455 Seminar in Sustainability Studies

2. Foundation Courses: (6-8 hours)
   - Select two of the following courses:
     - BIOL 109 Human Biology and the Environment
     - GEOG 103 Physical Geography
     - GEOG 104 Human Geography
     - GEOG 205/PHSC 205 Descriptive Meteorology
     - HIST 100 The Contemporary World in Historical Perspective
     - IDIS 160 Science, Technology and Society
     - LEAD 101 Introduction to Leadership Studies
     - MDFL 111 Intercultural Understanding
     - PHIL 102 Contemporary Ethical Problems
     - POSC 113 Introduction to World Politics
     - SOCI 224 Cultural Anthropology
     - SUST 246 Sustainability in Action

3. Elective Courses*: (9 hours)
   - Select three courses from at least two departments:
     - BIOL 340 General Ecology
     - BIOL 425 Forest Ecology and Conservation
     - BIOL 450 Ecology and Management of Wildlife Populations
     - CHEM 420 Environmental Chemical Analysis
     - CHEM 460 Environmental Chemistry
     - CMST 345 Conflict Management
     - CMST 365 Environmental Communication
     - ECON 470 Resource and Energy Economics
     - ENGL 402 Editing and Production
     - ENGL 440 Literature of the Environment
     - GEOG 335 Oceanography
     - GEOG 360 Food Systems
     - GEOG 405 Global Climate Systems
     - GEOG 406 Management and Conservation of Natural Resources
     - GEOG 421 Regional Planning
     - GEOG 423 Geography of the Suburbs
     - GEOG 445 Biogeography
     - GEOG 450 Urban Planning
     - GEOG 472 Environmental Planning
     - GEOG 473 Environmental Law
     - HIST 409 World Environmental History
     - HIST 420 Green: Environment and Economy in U.S. History
     - LEAD 401 Citizen Leader
     - MGMT 356 Leadership and Human Behavior
     - MGMT 405 Business Ethics and Social Responsibility
     - PHIL 315 Philosophy and the Environment
     - PHIL 335 Politics of Food
     - PHIL 340 Practical Solar Energy
     - POSC 336 Politics of Food
     - PSYC 488 Environmental Psychology
     - REC 393 History and Philosophy of Outdoor Recreation
     - SOC 345 Sociology of the Environment
     - SOC 366 Social Inequality
     - SOC 420 Animals in Human Society
     - SUST 494 Field Experiences in Sustainability

*Special topics courses numbered 490 or 491 in participating departments when approved by the Program Coordinator. One 3-hour independent studies course numbered 499 when approved by the Program Coordinator. With prior approval, a study abroad experience of 3 credits or more with a sustainability focus can be used in place of an elective course.


**Theatre**

**Major**

**Minor**

Tracks in:
- Acting
- Design/Technology
- Theatrical Studies

| Professor: | Yost-Rushton |
| Associate Professors: | Mattis (Chair, Department of Theatre and Dance), Rushton |
| Assistant Professors: | Schroeder, Scruggs |

- You must earn a 2.7 cumulative GPA in all theatre courses to meet graduation requirements.
- Legal residents of Delaware may complete a theatre degree (acting track) at Maryland resident tuition rates through the SREB Academic Common Market.
- All students who wish to enter or re-enter the major with a primary focus in the Design/Technology Track are required to pass an audition/essay for admittance.
- All students who wish to enter or re-enter the major with a primary focus in the Design/Technology Track are required to pass a portfolio review/essay for admittance.
- Students changing their primary area of focus must re-audition/essay before being accepted into that area of focus.
- Students who wish to enter the major with a primary focus in Theatrical Studies may simply declare that track on admittance to Frostburg State University.
- An interview/essay is required for all students seeking departmental scholarship consideration.

**Summary of Requirements for Major/Minor In Theatre**

### 1. Core Courses in Theatre: (30 hours)

| THEA 104 Theatre (3 hours; all three hours must be in a production area. One hour must be completed within student’s first two semesters as a theatre major. All 3 hours must be completed by the end of student’s junior year.) |
| THEA 106 Introduction to Theatre (GEP Group A) |
| THEA 107 Introduction to Theatrical Vision (GEP Group A) |
| THEA 110 Introduction to Acting |
| THEA 204 Stagecraft |
| THEA 206 Modern American Drama (also offered as ENGL 206) |
| THEA 308 Directing |
| THEA 425 History of Theatre I |
| THEA 426 History of Theatre II |
| THEA 431 World Drama I (also offered as ENGL 431) |

### 2. Theatre Tracks: (30 hours)

You must complete 30 hours in acting or design/technology, and 27-33 hours in Theatrical Studies:

#### a. Acting

| THEA 208 Acting: Basic Principles and Application |
| THEA 210 Voice and Movement |
| THEA 211 Voice and Movement II |
| THEA 310 Voice and Speech |
| THEA 318 Acting: Analysis and Performance |
| THEA 420 Marketing Yourself as an Actor |
| THEA 421 Advanced Acting: Analysis and Performance of Shakespeare |

And nine credits from the following:

| DANC 154 Jazz I |
| DANC 165 Tap I |
| DANC 361 Dance for Musical Theatre |
| THEA 360 Stage Combat |
| THEA 460 Physical Comedy |

#### b. Design/Technology

| THEA 202 Stage Management |
| THEA 203 Costume Technologies |
| THEA 205 Fabrication Technologies |
| THEA 207 TheatreCAD |
| THEA 209 Portfolio Review I |
| THEA 304 Sound Design |
| THEA 305 Scene Design |
| THEA 306 Stage Lighting |
| THEA 307 Costume Design |
| THEA 309 Portfolio Review II |
| THEA 409 Exit Portfolio Review |

### 1. Core Courses in Theatre: (15 hours)

| THEA 106 Introduction to Theatre (GEP Group A) |
| THEA 107 Introduction to Theatrical Vision (GEP Group A) |
| THEA 110 Introduction to Acting |
| THEA 206 Modern American Drama (also offered as ENGL 206) |
| THEA 308 Directing |

### 2. Additional Theatre Electives: (9 hours)

You must select additional courses, for a total of 9 hours, from any Theatre courses not already used to fulfill a Theatre minor requirement.
Major (continued)

Choose one of the following:
THEA 400 Theatre Production (Production Capstone – Technical)
THEA 465 Projects in Theatrical Design (Production Capstone – Design)

c. Theatrical Studies (27-33 Credits)
THEA 202 Stage Management
THEA 208 Acting: Basic Principles and Application
And select two from:
THEA 304 Sound Design
THEA 305 Scene Design
THEA 306 Stage Lighting
THEA 307 Costume Design

And one of the following three options:
THEA 492 Internship Project (Theatrical Studies Capstone)
THEA 495 Internship in Theatre
and six additional hours from any theatre courses not already used to fulfill core courses in theatre requirements
Or
THEA 499 Directed Study (Theatrical Studies Capstone)
and 15 additional hours from any theatre courses not already used to fulfill core courses in theatre requirements
Or
THEA 466 Projects in Directing (Theatrical Studies Capstone)
and 15 additional hours from any theatre courses not already used to fulfill core courses in theatre requirements
Urban and Regional Planning

Major

Summary of Requirements for Major in Urban and Regional Planning

<table>
<thead>
<tr>
<th>MAJOR</th>
<th>MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours Required in Geography:</td>
<td>26-38</td>
</tr>
<tr>
<td>Hours Required in Other Departments:</td>
<td>30-42</td>
</tr>
<tr>
<td>Total Hours</td>
<td>68</td>
</tr>
</tbody>
</table>

1. Introductory Level Courses: (28 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMST 102</td>
<td>Introduction to Human Communication</td>
</tr>
<tr>
<td>or CMST 122</td>
<td>Introduction to Public Speaking</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Economics (Macro)</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Economics (Micro)</td>
</tr>
<tr>
<td>GEOG 103</td>
<td>Physical Geography (GEP Group C)</td>
</tr>
<tr>
<td>GEOG 104</td>
<td>Human Geography (GEP Group D or F)</td>
</tr>
<tr>
<td>GEOG 275</td>
<td>Fundamentals of Geographic Data Handling (Tech. Fluency)</td>
</tr>
<tr>
<td>MATH 109</td>
<td>Elements of Applied Probability and Statistics (Core Skill 3)</td>
</tr>
<tr>
<td>POSC 110</td>
<td>Introduction to American Politics (GEP Group D)</td>
</tr>
<tr>
<td>POSC 100</td>
<td>Introduction to Sociology (GEP Group D)</td>
</tr>
</tbody>
</table>

2. Professional Core Courses: (28 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ECON 404</td>
<td>Public Sector Economics</td>
</tr>
<tr>
<td>or POSC 355</td>
<td>Public Budgeting</td>
</tr>
<tr>
<td>ENGL 338</td>
<td>Technical Writing</td>
</tr>
<tr>
<td>or ENGL 308</td>
<td>Social Sciences Advanced Composition</td>
</tr>
<tr>
<td>or ENGL 310</td>
<td>General Advanced Composition (Core Skill 2)</td>
</tr>
<tr>
<td>GEOG 222</td>
<td>Introduction to Cities</td>
</tr>
<tr>
<td>GEOG 317</td>
<td>Principles of Geographic Information Science</td>
</tr>
<tr>
<td>GEOG 324</td>
<td>Urban Geography</td>
</tr>
<tr>
<td>GEOG 380, SOCI 311 or POSC 250</td>
<td>Research Methods</td>
</tr>
<tr>
<td>GEOG 421</td>
<td>Regional Planning</td>
</tr>
<tr>
<td>GEOG 450</td>
<td>Urban Planning</td>
</tr>
<tr>
<td>GEOG 485</td>
<td>Senior Project (Capstone)</td>
</tr>
<tr>
<td>POSC 323</td>
<td>Public Administration</td>
</tr>
</tbody>
</table>

3. Electives:* (6 hours from courses listed below or courses for another focus in part 4.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 408</td>
<td>Urban and Regional Economics</td>
</tr>
<tr>
<td>ECON 410</td>
<td>Resource and Energy Economics</td>
</tr>
<tr>
<td>ENS 100</td>
<td>Introduction to Engineering Design</td>
</tr>
<tr>
<td>GEOG 410</td>
<td>Locational Analysis</td>
</tr>
<tr>
<td>GEOG 425</td>
<td>Geography of Transportation</td>
</tr>
<tr>
<td>GEOG 471</td>
<td>Engineering for Land Development</td>
</tr>
<tr>
<td>POSC 321</td>
<td>American State and Local Politics</td>
</tr>
<tr>
<td>POSC 358</td>
<td>American Public Policy</td>
</tr>
</tbody>
</table>

4. Advanced Planning Focus:* (6 hours, select one focus)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 443</td>
<td>Current Issues and Legal Liability in Recreation and Parks</td>
</tr>
<tr>
<td>SOCI 305</td>
<td>Racial and Cultural Minorities (GEP Group F)</td>
</tr>
<tr>
<td>SOCI 322</td>
<td>Demography</td>
</tr>
<tr>
<td>SOWK 371</td>
<td>Social Policy</td>
</tr>
</tbody>
</table>

Community Planning

Select two from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 325</td>
<td>Community Analysis</td>
</tr>
<tr>
<td>SOCI 326</td>
<td>Sociology of Rural Life</td>
</tr>
<tr>
<td>SOCI 328</td>
<td>Sociology of Urban Life</td>
</tr>
<tr>
<td>SOWK 370</td>
<td>Introduction to Social Welfare and Social Work</td>
</tr>
</tbody>
</table>

Tourism Development

Select two from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>GEOG 454</td>
<td>Geography of Tourism</td>
</tr>
<tr>
<td>GEOG 455</td>
<td>Tourism Planning</td>
</tr>
<tr>
<td>RECR 448</td>
<td>Principles of Ecotourism</td>
</tr>
</tbody>
</table>

Mapping Science

Select two from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 310</td>
<td>Fundamentals in the Mapping Sciences</td>
</tr>
<tr>
<td>GEOG 413</td>
<td>Remote Sensing — Image Interpretation</td>
</tr>
<tr>
<td>GEOG 420</td>
<td>Topics in the Mapping and Geospatial Sciences</td>
</tr>
<tr>
<td>GEOG 433</td>
<td>Surveying</td>
</tr>
</tbody>
</table>

Environmental Planning

Select two from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 406</td>
<td>Conservation of Natural Resources</td>
</tr>
<tr>
<td>GEOG 460</td>
<td>Natural Hazards in the Physical Environment</td>
</tr>
<tr>
<td>GEOG 472</td>
<td>Environmental Planning</td>
</tr>
<tr>
<td>GEOG 473</td>
<td>Environmental Law</td>
</tr>
</tbody>
</table>

*Completion of Introductory Level and Professional Core courses will fulfill prerequisites for most of these courses. Additional prerequisites apply for SOWK 371, GEOG 317 and GEOG 471.
Wildlife & Fisheries

Major

See related programs:

- BIOLOGY
--pre-health option
- molecular biology
- environmental science
- environmental analysis & planning
- ethnobotany
- forestry
- interpretive biology & natural history

Contact:
Sunshine Brosi, Associate Professor, Department of Biology

Professors:
Ammer, Fritz, Raesly, Seddon, Serfass (Chair)

Associate Professors:
Brosi, Keller, Li, Pegg, Puthoff

Assistant Professors:
Lambert, Studinski, Taylor, Vrentas

Students completing the professional programs as listed meet all educational requirements for their certification by The Wildlife Society or American Fisheries Society (depending upon the option chosen).

Students can choose to add a fisheries option to either wildlife option.

Students will meet educational requirements for scientific research positions in Wildlife Biology or Fisheries Biology for federal and state agencies.

Students intending to further their education in graduate school are also encouraged to take one semester of organic chemistry.

Minors are available in biology, forestry, ethnobotany, geography, and sustainability studies.

Summary of Requirements for Major in Wildlife & Fisheries

Major

1. Core Curriculum: (40 hours)
   - BIOL 149 General Biology I (GEP Group C)
   - BIOL 160 General Zoology
   - BIOL 161 General Botany
   - BIOL 200 Scientific Investigation and Communication
   - BIOL 340 General Ecology
   - BIOL 350 Genetics
   - BIOL 492 Wildlife-Fisheries Seminar (Capstone)
   - CHEM 201 General Chemistry I (GEP Group C)
   - CMST 102/112 Introduction to Human Communication
   - ENGL 339 Scientific Writing (Core Skill 2)
   - ENGR 338 Technical Writing (Core Skill 2)
   - GEOG 103/113 Physical Geography (GEP Group C)
   - MATH 110/110 Elements of Applied Probability and Statistics (Core Skill 3)

2. Wildlife Core Requirements: (23-24 hours)
   - BIOL 450 Ecology and Management of Wildlife Populations
   - BIOL 230 Wildlife Techniques
   - Wildlife Biology, take two of the following:
     - BIOL 406 Ornithology
     - BIOL 422 Herpetology
     - BIOL 423 Mammalogy
   - Anatomy and Physiology, take one of the following:
     - BIOL 302 Animal Physiology
     - BIOL 427 Comparative Anatomy
   - Botany, take one of the following:
     - BIOL 305 Dendrology
     - BIOL 314 Plant Taxonomy
   - Policy, Administration, and Law, take one of the following:
     - BIOL 425 Forest Ecology and Conservation
     - GEOG 472 Environmental Planning
     - GEOG 473 Environmental Law

3. Requirements for Professional Wildlife Track:
   - 1. Core Curriculum: (36 hours — listed above)
   - 2. Wildlife Core Requirements: (23-24 hours — listed above)
   - 3. Professional Certification Core Requirements (16-17 hours)

   Quantitative Sciences:
   - BIOL 414 Quantitative Analysis of Vertebrate Populations
   - MATH 220 Calculus for Applications I
   - or MATH 236 Calculus I (Core Skill 3)
   - CHEM 202 General Chemistry II

   Botany, one additional course from:
   - BIOL 303 Plant Physiology
   - BIOL 305 Dendrology
   - BIOL 314 Plant Taxonomy
   - BIOL 312 Morphology of Vascular Plants

   Policy, Administration and Law, one additional course from:
   - BIOL 425 Forest Ecology and Conservation
   - GEOG 472 Environmental Planning
   - GEOG 473 Environmental Law

4. Requirements for General Wildlife Track
   - 1. Core Curriculum: (36 hours — listed above)
   - 2. Wildlife Core Requirements: (23-24 hours — listed above)
   - 3. General Wildlife Track Requirements (9-11 hours)

   MATH 119 College Algebra (Core Skill 3)
   or MATH 120 Pre-Calculus (Core Skill 3)
   or any math course above 219

   Plus two additional courses from:
   - BIOL 302 Animal Physiology
   - BIOL 309 General Entomology
   - BIOL 334 General Animal Behavior
   - BIOL 406 Ornithology
   - BIOL 411 Invertebrate Zoology
   - BIOL 412 General Parasitology
   - BIOL 417 Ichthyology
   - BIOL 422 Herpetology
   - BIOL 423 Mammalogy
   - BIOL 426 Vertebrate Zoology
   - BIOL 427 Comparative Anatomy

5. Requirements for Professional Fisheries Track
   - 1. Core Curriculum: (36 hours — listed above)
   - 2. Professional Fisheries Track Requirements: (22 hours)

   CHEM 202 General Chemistry II
   - BIOL 417 Ichthyology
   - BIOL 420 Fish Management and Culture
   - BIOL 430 Introductory Limnology
   - CHEM 420 Environmental Chemical Analysis
   - GEOG 430 Surface Water Hydrology
Women’s Studies

Coordinator:
Julie Hartman-Linck, Associate Professor, Department of Sociology

Participating Faculty:

Professors:
Boniece (History), Lutz (English)

Associate Professors:
Armiento (English), J. Flinn (Psychology), Hartman-Linck (Sociology)

Assistant Professors:
Anastasia (English), Armfield (English), Brassfield (Philosophy), McConnell (History), Morris (English)

Lecturers:
Schuster (History), Willingham (Communication)

• Women’s Studies is a multicultural and multidisciplinary minor.
• You cannot major in Women’s Studies.

Summary of Requirements for Minor in Women’s Studies

<table>
<thead>
<tr>
<th>Minor</th>
<th>1. Required Course: (3 hours) WMST 201 Introduction to Women’s Studies (GEP Group F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Elective Courses: (15 hours) Select five from among the following:</td>
</tr>
<tr>
<td></td>
<td>ART 370 Women/Gender and the Visual Arts</td>
</tr>
<tr>
<td></td>
<td>ENGL 290 Topics in Language &amp; Literature (when content is appropriate)</td>
</tr>
<tr>
<td></td>
<td>ENGL 450 Women and Literature</td>
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<tr>
<td></td>
<td>HIST 436 Women’s Issues in World History (GEP Group F)</td>
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<tr>
<td></td>
<td>MDFL 301 Latin American Women’s Issues (GEP Group F)</td>
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<tr>
<td></td>
<td>MUSC 250 Gender and Sexuality in Music (GEP Group F)</td>
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<tr>
<td></td>
<td>PHIL 409 Philosophy and Women (GEP Group F)</td>
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<tr>
<td></td>
<td>POSC 365 Women and Politics</td>
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<tr>
<td></td>
<td>PSYC 220 Psychology of Women (GEP Group F)</td>
</tr>
<tr>
<td></td>
<td>PSYC 270 Psychological Perspectives of Human Sexuality</td>
</tr>
<tr>
<td></td>
<td>SOCI 334 Gender and Social Life</td>
</tr>
<tr>
<td></td>
<td>SOCI 364 Marriage and Family Relationships</td>
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<tr>
<td></td>
<td>SOCI 366 Social Inequality</td>
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<tr>
<td></td>
<td>SOCI 466 Women, Health, and Healing</td>
</tr>
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<td></td>
<td>THEA 428 Women Through Theatre</td>
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<td></td>
<td>WMST 490 Special Topics in Women’s Studies</td>
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<td></td>
<td>WMST 491 Seminar in Women’s Studies</td>
</tr>
<tr>
<td></td>
<td>WMST 494 Practicum in Women’s Studies (a maximum of 3 credits may be applied to the minor)</td>
</tr>
<tr>
<td></td>
<td>WMST 499 Independent Study</td>
</tr>
</tbody>
</table>

Total Hours Required: 18
Course Descriptions

Accounting

**ACCT 211 Financial Accounting** 3 cr.
An introduction to the principles and concepts of financial accounting, including the basic accounting process, required to make informed decisions based on financial statement information. Credit cannot be earned for both ACCT 201 and ACCT 211. Every semester. Prerequisite or corequisite: MGMT 110 for all ACCT, BUAD, and ECON majors (Business Economics Concentration) only.

**ACCT 212 Managerial Accounting** 3 cr.
Accounting as a tool for decision making, planning, control and evaluation. Cost-volume-profit analysis, cost behavior, profit planning and product costing. Every semester. Prerequisite: C grade or better in ACCT 211.

**ACCT 305 Accounting Systems** 3 cr.
Modern accounting systems, computer applications in accounting problems and systems design. Lab/Lecture. Fall. Prerequisite: C grade or better in ACCT 311 and COSC 100/110/220.

**ACCT 311 Intermediate Accounting I** 3 cr.
Accounting standards, conceptual framework, comprehensive development of the accounting process, financial statement preparation, revenue recognition and time value of money. Every semester. Prerequisite: C grade or better in ACCT 211. Prerequisite or corequisite: MATH 118, 220, or 236.

**ACCT 312 Intermediate Accounting II** 3 cr.
Application of accounting theory and techniques, sequel to ACCT 311. Current assets, investments, plant assets, intangible assets, liabilities. Every semester. Prerequisites: C grade or better in MATH 118 or 220 or 236, ACCT 212 and ACCT 311.

**ACCT 313 Intermediate Accounting III** 3 cr.
Application of accounting theory and techniques, sequel to ACCT 311 and ACCT 312. Earnings per share, stockholders' equity, income taxes, pensions and post retirement benefits, leases, accounting changes and error analysis, statement of cash flows and full disclosure. Fall. Prerequisite: C grade or better in ACCT 312.

**ACCT 315 Cost Accounting** 3 cr.
In-depth coverage of cost-volume-profit analysis, cost behavior and cost analysis. Cost management, cost control, determination, evaluation and analysis. Pricing decisions and decision making with relevant costs. Every semester. Prerequisites: C grade or better in MATH 118 or 220 or 236 and ACCT 311.

**ACCT 316 Advanced Cost Accounting** 3 cr.
In-depth coverage of job costing, activity-based costing and process costing. Flexible budgets, variance analysis, inventory costing and capacity analysis. Variable. Prerequisite: C grade or better in ACCT 315.

**ACCT 325 Auditing** 3 cr.
Fundamentals of auditing theory and practice. Ethics, legal liability, generally accepted auditing standards, the conceptual framework underlying auditing and reporting. General approaches to auditing financial statements, other services provided by public accountants. Spring. Prerequisites: C grade or better in ACCT 301 or ACCT 311.

**ACCT 330 Governmental and Nonprofit Accounting** 3 cr.
Accounting and financial reporting for state and local governments, and nonprofit organizations such as hospitals and colleges. Fall. Prerequisite: C grade or better in ACCT 301 or ACCT 311.

**ACCT 340 Financial Reporting Issues** 3 cr.
Investors' use of financial statements, management motives in issuing statements, internal financial versus reporting decisions, economic significance of accounting reports, and the evolution and variety of accounting principles. Dissection of corporate accounting reports required by the financial markets, creditors and regulatory authorities. Spring. Prerequisites: 42 credits and C grade or better in ACCT 212 or permission of instructor.

**ACCT 401 Advanced Financial Accounting** 3 cr.
Partnerships, business combinations, consolidated financial statements, international accounting issues, foreign currency transactions, foreign currency financial statement translation and other current topics. Spring. Prerequisite: C grade or better in ACCT 302 or ACCT 312.

**ACCT 420 Tax** 3 cr.
Federal income taxation of individuals and corporations. Introductory tax research, tax planning, and professional responsibilities. Other topics, such as tax preparation software, at the discretion of the instructor. Fall. Prerequisites: 75 credits and C grade or better in ACCT 312 or permission of instructor.

**ACCT 421 Advanced Tax** 3 cr.
Partnerships, S corporations and other advanced topics in individual taxation. Other topics, such as basic tax research, tax preparation software and Maryland income taxes at the discretion of the instructor. Variable. Prerequisite: C grade or better in ACCT 420.

**ACCT 425 Tax Practicum** 3 cr.
Guided work experience in tax preparation of federal and state returns provided as a community service with National Volunteer Income Tax Assistance Program. Requires a minimum of 50 hours of work after completion of IRS and campus training programs. Fulfills ACCT major electives requirements. Repeatable for a maximum of 6 credits, but only 3 credits may be applied toward the ACCT major. Spring. Prerequisite: Permission of instructor.

**ACCT 494 Internship in Accounting** 3 or 6 cr.
Guided work experience in public accounting, industry, government or not-for-profit accounting. Minimum of 135 clock hours of experience for 3 credits. Minimum of 270 clock hours of experience for 6 credits. Academic component consists of two research papers on experience-related topics and a detailed report on the internship experience. Previous experience not acceptable for credit. Repeatable for maximum of 6 credits. Every semester and summer. Prerequisites: ACCT 212, ACCT 312 and departmental approval.

Adventure Sports Management

**ADSP 330 Outdoor Education** 3 cr.
Development of outdoor education in the nonprofit service industry, including National Outdoor Leadership School and Outward Bound. Course taken as part of LIFE program during the immersion semester. Spring. Prerequisite: ADSP 340 or permission of instructor.

**ADSP 340 Expedition Planning in Adventure Sports** 3 cr.
Students learn the principles of planning adventure sports expeditions and experiences, including professional outfitting and the LIFE immersion experience. Course taken during the summer prior to LIFE program immersion experience. Fall.

**ADSP 350 Risk Management in Adventure Sports** 3 cr.
An integrated approach to risk management focusing on negligence, accident process, risk management plans and post-incident management. Fall.

**ADSP 360 Entrepreneurship in Adventure Sports** 3 cr.

**ADSP 381 Facilitation Skills and Techniques in Adventure Sports** 3 cr.
Development of facilitation skills, including interpersonal skills and techniques, to become an effective leader and manager in adventure sports. Course taken as part of LIFE program during the immersion semester. Spring. Prerequisite: ADSP 340 or permission of instructor.

**ADSP 382 Agency Assessment** 3 cr.
The use of accreditation standards or similar industry standards to assess an adventure sports agency, camp or private company. Course taken as part of LIFE program during the immersion semester. Fall.
ADSP 391 Journaling in Adventure Sports 3 cr.
Principles of journaling in an adventure sports setting. Course taken as part of LIFE program during the immersion semester. Spring. Prerequisite: ADSP 340 or permission of instructor.

ADSP 392 Mentorship I in Adventure Sports 3 cr.
Intensive study under an individual, owner or leader in the adventure sports industry with an emphasis on an instructional setting. Course taken as part of LIFE program during the immersion semester. Spring. Prerequisite: ADSP 340 or permission of instructor.

ADSP 491 Professional Development in Adventure Sports 3 cr.
Emphasizing the positioning approach, the course introduces effective job search strategies to prepare students for their mentorship experience and eventual employment. Topics include the positioning approach; developing interview skills; creating a resume, cover letter and online portfolio; and utilizing a variety of sources to locate potential mentorship/internship/job opportunities in the adventure sports industry. Fall.

ADSP 492 Mentorship in Adventure Sports 3 cr.
Intensive study under an individual, owner or leader in the adventure sports industry. Completion of an approved project and 400 hours minimum required. May be taken in conjunction with ADSP 495. Fall/spring/summer.

ADSP 495 Mentorship in Adventure Sports 9-12 cr.
Optional credits for the 400 hours required for the mentorship. Fall/spring/summer.

African American Studies

AAST 200 Introduction to African American Studies 3 cr.
Overview of critical aspects of the history and culture of African Americans. Employs various interdisciplinary perspectives to explore the experience of Africans uprooted from their land, ways in which these African Americans have adjusted to their new society, and contributed to its growth and development. Spring. GEP Group F.

AAST 300 Traditional Africa 3 cr.
The African pre-colonial states: their governments, economic systems, cultural patterns, achievements, and relations with other African and non-African peoples. Also offered as HIST 301. Variable.

AAST 400 Africans of the Diaspora 3 cr.
Exploration of the main historical trends, cultural tenets, social movements, and intellectual constructions of the African Diaspora with focus on the international connections created by voluntary and forced migrations of people of African descent in antiquity and modern times. Examination of the historical challenges to Africans of the Diaspora and initiatives taken in the face of various Euro-American systems and institutions. Variable. GEP Group F.

AAST 425 History of African American Theatre 3 cr.
Study of the development of African American theatre from nineteenth century through present. Examination of representative forms, dramatists, theatre artists from across the United States with an awareness of the ways African American theatre interacts with various social, cultural and political concerns. Variable.

AAST 490 Topics in African American Studies 3 cr.
Variable topics related to African American Studies from disciplines across the University. Variable. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: AAST 200 or permission of the instructor.

AAST 494 AAST Practicum 3 cr.
Study of African American history and culture through field trips to cities in Maryland and neighboring states, articulated with a theoretical analysis of major themes under study. Readings, some classroom sessions, private consultations with the instructor, and personal writings constitute the theoretical component of the practicum. Lecture, travel, and independent study. Additional fees required. Every semester. Prerequisite: permission of the instructor.

Art

ART 100 Art Appreciation 3 cr.
Introduction to the appreciation and understanding of the visual arts. Every semester. GEP Group A.

ART 104 Two-Dimensional Design 3 cr.
Introduction to the visual organization and formal analysis of two-dimensional design. Critical study, vocabulary, design applications and media explorations as applied to two-dimensional design. Required of all art majors and minors. Two hr. lecture, 2 hr. lab. Fall.

ART 105 Three-Dimensional Design 3 cr.
Introduction to the visual organization and formal analysis of three-dimensional design. Critical study, vocabulary, design applications and media explorations as applied to three-dimensional design. Required of all art majors and minors. Two hr. lecture, 2 hr. lab. Spring.

ART 110 Visual Imagery 3 cr.
An introduction to the visual arts through theory and practice; exploring basic aesthetic concepts, modes of visual communication, expressive meaning of various materials, theoretical components and symbol systems. Admission priority for Early Childhood and Elementary Education majors. Every semester. GEP Group A.

ART 202 Ceramics 3 cr.
Introduction to ceramic processes, history and aesthetics of ceramic form; an exploration of functional and sculptural ceramics. Studio performance stressed. Two hr. lecture, 2 hr. lab. Every semester.

ART 207 Graphic Design 3 cr.
Basic level graphic processes and techniques: Photoshop and Quark softwares, Macintosh platform. Information and technology fluency. Visual art and graphic design orientation. Two hr. lecture, 2 hr. lab. Every semester. Tech. Fluency

ART 209 Crafts Workshop 3 cr.
A variety of crafts such as textiles, weaving, mosaics, leather and metalwork. Two hr. lecture, 2 hr. lab. Variable.

ART 212 Drawing 3 cr.
Fundamental aspects of drawing with emphasis on composition, techniques, and concept. Variety of media techniques and subjects, exploring conceptual and expressive possibilities; drawing as a description of structures within a spatial environment. Two hr. lecture, 2 hr. lab. Every semester.

ART 216 Illustration 3 cr.
Drawing and painting techniques to develop technical proficiency with emphasis on observation, composition and imagination. Emphasis on processes pertaining to illustrated visual imagery in editorial, digital, institutional and scientific/environmental themes. Two hr. lecture, 2 hr. lab. Every semester. Prerequisites: ART 212 and ART 104.

ART 221 Painting 3 cr.
Introduction to painting – color, form, shape and texture; problems in formal and expressive relationships. Studio performance stressed. Two hr. lecture, 2 hr. lab. Every semester.

ART 232 Printmaking 3 cr.
Introduction to relief, intaglio, planographic and serigraphic processes. Two hr. lecture, 2 hr. lab. Every semester.

ART 235 Photography 3 cr.
Introduction to still photography: basic camera use, exposure control and darkroom procedure. Final portfolio of work required. Two hr. lecture, 2 hr. discussion and one 3-hr. darkroom period per week. Every semester.
ART 240 Sculpture 3 cr.
Introduction to classical and contemporary concepts of form and media of sculpting. Physical properties of structure and the nature of materials. Two hr. lecture, 2 hr. lab. Every semester.

ART 291: Studio Focus Review 1 cr.
Review of work in student’s focus area(s). Registration concurrent with second advanced studio in primary focus area. May be attempted no more than three times. Graded P/N. Every semester.

ART 301 Artistic Traditions: Asia 3 cr.
Survey of cultures outside the European tradition. An iconographic and aesthetic analysis of Asian traditions: Buddhist, Hindu and Islamic. Fall, even-numbered years. GEP Group F.

ART 302 Artistic Traditions: Africa and the Americas 3 cr.
Survey of cultures outside the European tradition. An iconographic and aesthetic analysis of the arts of Africa, Pre-Columbian America and the indigenous populations of North America. Fall, odd-numbered years. GEP Group F.

ART 307 Computer Graphics 3 cr.
Introduction to terminology, methods, processes, craft and technology of the computer graphic designer; emphasis on theory and application of the Macintosh computer system. May be taken only one time for credit. Two hr. lecture, 2 hrs. lab. Every semester. Prerequisite: ART 207.

ART 336 Digital Imaging for the Fine Arts 3 cr.
Introduction to alternative graphic design practices through the study of contemporary media techniques and output to a variety of printing devices. Students will explore non-traditional applications of materials and various fabrication processes. Two hr. lecture, 2 hr. lab. Every semester.

ART 360 Western Art History 3 cr.
Survey from the prehistoric to the modern. The theoretical evolution of classicism and anti-classicism as evidenced in painting, sculpture and architecture. Fall.

ART 370 Women/Gender and the Visual Arts 3 cr.
A survey and analysis of the roles of women and gender in artistic production, spectatorship and critical discourse. Painting, sculpture and photography. Spring, odd-numbered years.

ART 380 19th-Century Art History 3 cr.
Survey of major artistic developments in Europe and America from the time of the French Revolution until World War I. This course presents the broad context of 19th century art. Fall, even-numbered years.

ART 402 Advanced Ceramics 3 cr.
Continued study of clays and glazes, potter’s wheel and handbuilding techniques; critical analysis and research into historical and contemporary trends. At advanced levels, departmental majors will be involved in research and development of concepts culminating in a final senior exhibition or internship. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hr. lab. Every semester. Prerequisites: ART 202; concurrent enrollment in ART 291 and second advanced course.

ART 407 Advanced Graphic Design: Print 3 cr.
Variety of design problems using Macintosh computers combined with traditional layout and illustration techniques. Emphasis on the historical and functional use of a professional quality portfolio. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hr. lab. Every semester. Prerequisites: ART 207 and ART 307, or permission of instructor; concurrent enrollment in ART 291 and second advanced course.

ART 408 20th-Century Art History 3 cr.
Survey of major developments from post-impressionism to post-modernism and the contemporary: Europe and the United States. Spring.

ART 411 Senior Portfolio 3 cr.
Continued investigation and development of studio work and concepts, culminating in a professional portfolio. Co-registration in ART 491 required. Every semester. Prerequisite: Passage of studio focus review and senior status. Capstone.

ART 412 Advanced Drawing 3 cr.
Continuation of observational figurative and non-figurative drawing. Emphasis on the development of composition, expression, color, use of media and conceptual content. Two hr. lecture, 2 hr. lab. Every semester. Prerequisite: ART 212.

Processes include digital imaging, digital video and audio production, animation and interface design and scripting. Emphasis on the formal, historical and sociological aspects of interactive design. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hr. lab. Every semester. Prerequisites: ART 207, ART 307, or permission of instructor; concurrent enrollment in ART 291 and second advanced course.

ART 415 Art Criticism 3 cr.
Problems in describing, analyzing, interpreting and evaluating art. History, purposes, conceptual bases and methods of art criticism; critical performance. Spring. Prerequisites: ART 360 or ART 408, 60 credit minimum.

ART 416 Advanced Illustration 3 cr.
Professional applications in drawing and illustration related to traditional and digital technology. Assignments present industry-specific problems, which encourage students to examine the transition from conceptualization to execution. Professional portfolio development. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hr. lab. Every semester. Prerequisites: ART 221; concurrent enrollment in ART 291 and second advanced course.

ART 430 Greek and Roman Art 3 cr.
A social and art historical analysis of Greco-Roman visual representation. Sculpture and painting. Spring, odd-numbered years.

ART 432 Advanced Printmaking 3 cr.
Continued study of printmaking processes, refinement of media and individual expression; critical analysis and research into historical and contemporary trends. At advanced levels, departmental majors will be involved in research and development of concepts culminating in a final senior exhibition or internship. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hrs. lab. Every semester. Prerequisites: ART 232; concurrent enrollment in ART 291 and second advanced course.

ART 435 Advanced Photography 3 cr.
In-depth photographic exploration of selected subject matter. Unified photographic thesis required; critical analysis and research into historical and contemporary trends. At advanced levels, departmental majors will be involved in research and development of concepts culminating in a final senior exhibition or internship. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hrs. lab. Every semester. Prerequisites: ART 235; concurrent enrollment in ART 291 and second advanced course.

ART 440 Advanced Sculpture 3 cr.
Continued study of functional and non-functional sculpture, and individual expression; critical analysis and research into historical and contemporary trends. At advanced levels, departmental majors will be involved in research and development of concepts culminating in a final senior exhibition or internship. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hrs. lab. Every semester. Prerequisites: ART 240; concurrent enrollment in ART 291 and second advanced course.

ART 452 Ceramic Glaze Research 3 cr.
Exploration of ceramic glaze components, glaze calculation, glaze surfaces and firing temperatures. Two hrs. lecture, 2 hrs. lab. Variable. Prerequisites: ART 202, ART 402 or permission of instructor.

ART 460 Renaissance and Baroque Art History 3 cr.
The evolution of humanism and realism in the quattrocento, mannerism in the cinquecento and caravaggism and classicism in the seicento. Fall, odd-numbered years.
ART 490 Special Topics in Art 1-6 cr.
Concepts or media not regularly presented, using special resources. Lecture and studio or lecture only. Repeatable for a maximum of 9 credits if topics are substantially different. Variable. Prerequisite: permission of instructor.

ART 491 Senior Review 1 cr.
Graded P/N. Co-registration in ART 411 required. Every semester.

ART 492 Internship Research 3 cr.
Academic component of internship. Requires co-registration in 495. Graded A-F. Every semester.

ART 495 Internship in Art 6 or 12 cr.
Experiential component of internship: guided work experience in conjunction with 492; must directly relate to academic program. Full-time interns register for 3 credits in 492 and 12 credits in 495 and may not enroll in other courses. Part-time interns register for 3 credits in 492 and 6 credits in 495. Graded P/F. Every semester. Prerequisites: senior status, in good academic standing; submission of Internship Agreement form prior to registering; enrollment for a full year as FSU student; permission of focus supervisor and Department Chair; 3 advanced courses in the focus.

ART 499 Independent Study 1-6 cr.
Intensive individual study, staff-directed, in an area of special interest. Repeatable for a maximum of 12 credits if topics are substantially different. Prerequisite: permission of instructor in the focus area. Available only to Art & Design majors, Art History minors, Fine Arts minors and Graphic Design minors who have completed their respective focus sequences.

Biology

BIOL 109 Human Biology and the Environment 4 cr.
Study of the human species with emphasis on the interdependence of humans, other forms of life and the physical environment. Three hrs. lecture, 2 hrs. lab. Not for majors or minors. Every semester. GEP Group C.

BIOL 128 Introduction to Ethnobotany 4 cr.
Introduction into the discipline of ethnobotany focusing on the role of plants in Appalachian and other cultures. Field trips to local parks and visits with people active in the use of plants will provide opportunities for hands-on experience with techniques and methods used by field ethnobotanists. Three hrs. lecture, one 2-hr. lab. Fall.

BIOL 149 General Biology I 4 cr.
Biological principles and concepts. The life processes, development and relationship among organisms. Three hrs. lecture, 2 hrs. lab. Every semester. GEP Group C.

BIOL 160 General Zoology 4 cr.
Study of animals and evolution of animal diversity. Study of ecological interactions among animals and their physicochemical and biological environments. Three hrs. lecture, 2 hrs. lab. Required for biology majors. Every semester. Prerequisite: BIOL 149.

BIOL 161 General Botany 4 cr.
Botanical concepts and principles about algae and land plants. Emphasis on their origin, evolution, classification of major groups with typical life cycles and characteristics, general morphology and physiology of vascular plants, and plant ecology. Required for biology majors. Three 1-hr. lectures, one 2-hr. lab. Every semester. Prerequisite: BIOL 149.

BIOL 200 Scientific Investigation and Communication 3 cr.
Problem solving and communication in the natural sciences. Emphasis on analytical reasoning, application of concepts and principles, and values of language, order and measurement to scientific thought. Three hrs. lecture/discussion. Every semester. Prerequisites: BIOL 149, MATH 109/209 and sophomore standing or permission of instructor.

BIOL 211 Essentials of Anatomy and Physiology 4 cr.
An introduction to the structure, function, and movement of the human body. Three lectures and one two-hour laboratory period per week. Not for majors. Fall. Prerequisite: BIOL 149.

BIOL 230 Wildlife Techniques 3 cr.
Study and management of wildlife species. Capture, marking, physiological indices, food habits and nutrition, sex and age, population and habitat analysis. Current management practices. Two hrs. lecture, 3 hrs. lab. Fall. Not open to students who have credit for former BIOL 330. Prerequisite: BIOL 149.

BIOL 302 Animal Physiology 4 cr.
Mammalian physiology, with emphasis on basic physiology. Three hrs. lecture, one 2-hr. labs. Spring. Prerequisites: BIOL 149 or BIOL 160, CHEM 202.

BIOL 303 Plant Physiology 4 cr.
Higher-plant growth and differentiation. Case-study method. Topics include general differentiation, photometabolism, translocation and water relations. Three hrs. lecture, 3 hrs. lab. Spring. Prerequisites: BIOL 150 or BIOL 161 and CHEM 202. CHEM 311 recommended.

BIOL 304 Microbiology 4 cr.
Microorganisms, especially their form, structure, reproduction, physiology, metabolism, and identification, will be studied with emphasis on their distribution in nature, their beneficial and detrimental effects on humans, and the physical and chemical changes they may make in the environment. Two hrs. lecture and two 2-hr. labs. Every semester. Prerequisites: BIOL 149, CHEM 202.

BIOL 305 Dendrology 3 cr.
Collection, identification and study of native and introduced woody plants in summer and winter conditions. One hr. lecture, two 2-hr. labs. Fall. Prerequisite: BIOL 150 or BIOL 161.

BIOL 309 General Entomology 4 cr.
Identification, morphology, physiology, development, geological history, ecology and control of insects. Two hrs. lecture, two 2-hr. labs. Fall, odd-numbered years. Prerequisite: BIOL 150 or BIOL 160.

BIOL 310 Cell Biology 4 cr.
Dynamics of cells and their life processes. Ultrastructure, organization, thermodynamic and metabolic processes. Recommended for biology majors immediately following BIOL 150. Three hrs. lecture, one 2-hr. lab. Fall. Prerequisites: BIOL 149, CHEM 202. Corequisites: CHEM 311 and CHEM 312 or permission of instructor.

BIOL 311 Plant Evolution and Diversity 4 cr.
Origin, evolution and diversity of algae, bryophytes, ferns, gymnosperms and angiosperms. Comparative study of life history, morphology and of representatives of major groups. Two 1-hr. lectures, two 2-hr. labs. Every spring. Prerequisite: BIOL 150 or BIOL 161.

BIOL 312 Plant Taxonomy 3 cr.
Classification of flowering plants, gymnosperms and ferns. Emphasis on collection, identification and preparation of herbarium specimens. One hr. lecture, two 2-hr. labs. Spring. Prerequisite: BIOL 150 or BIOL 161.

BIOL 314 Anatomy and Physiology I 4 cr.
Structure and function of the human body. Includes its organization, the musculoskeletal system and the nervous system. Two hrs. lecture and two 2-hr. labs. Fall. Not open to students who have credit for former BIOL 201. Prerequisite: BIOL 149.

BIOL 315 Anatomy and Physiology II 4 cr.
Structure and function of the human body. Includes the endocrine, circulatory, respiratory, digestive, excretory and reproductive systems, and human development. Two hrs. lecture and two 2-hr. labs. Spring. Not open to students who have credit for former BIOL 202. Prerequisite: BIOL 321 or permission of instructor.

BIOL 320 Economic Botany 4 cr.
Study of plants and the link between plant structure and human's use of plants. Students will gain an understanding of the form and function of the plant body; plant nomenclature; history of plant use; origins of economically important plants; use of flowers and fruits for food and other purposes; use of roots, stems and leaves for food and other purposes. One hr. lecture, one 4-hr. lab. Spring, odd-numbered years. Recommended: BIOL 128 and 150 or 161.

BIOL 324 General Animal Behavior 3 cr.
Behavior of animals from an evolutionary approach. Research project required. Three hrs. lecture. Spring. Prerequisite: BIOL 149 or permission of instructor.

BIOL 340 General Ecology 4 cr.
Environmental relationships of plants and animals. Field laboratory experience. Measuring environmental variables in terrestrial and aquatic ecosystems. Two hrs. lecture, one 4-hr.
Biology Courses

**BIOL 350 Genetics**
Laws and molecular basis of inheritance. Genetic patterns and changes at the molecular, organismal and population levels. Three hrs. lecture. Spring. Prerequisites: BIOL 150, 160 or 161; CHEM 202 (or CHEM 201 and permission of the instructor); MATH 109/209.

**BIOL 401 Genetics Laboratory**
Techniques of collection and analysis of genetic data, including molecular, chromosomal, Mendelian and population genetics. One 2-hr. lab. Spring. Prerequisite or corequisite: BIOL 350.

**BIOL 402 Evolution**
Theories, evidences and mechanisms of evolution. Three hrs. lecture. Fall. Prerequisite: BIOL 149.

**BIOL 404 Histology**
Microscopic structure and function of the tissues and selected organs of vertebrates. Basic laboratory preparative techniques and tissue recognition. Two hrs. lecture, two 2-hr. labs. Spring, even-numbered years. Prerequisites: BIOL 150 or BIOL 160, CHEM 201.

**BIOL 406 Ornithology**
Anatomy, physiology, behavior, ecology and evolution of birds. Laboratory emphasis on identification of regional birds at the species and family level. Two hrs. lecture, one 4-hr. lab. Binoculars required. Spring. Prerequisite: BIOL 149 or BIOL 160.

**BIOL 407 Biological Systematics**
Principles, concepts, and methodologies used in systematic biology. Methods for reconstructing the evolutionary relationships of plants and animal taxa (including phenetic and cladistic analyses). Procedures for description, classification and analysis of the earth's biodiversity. Three hrs. lecture. Spring, odd-numbered years.

**BIOL 410 Plant Diseases**
Nature, cause and control of disease in plants. Plant pathogens: nematodes, viruses, bacteria and fungi in greenhouse, field and forest plants. Laboratory emphasis on identification and preparation of specimens according to phytopathological principles. Two hrs. lecture, one 2-hr. lab. Spring, odd-numbered years. Prerequisite: BIOL 150 or BIOL 161.

**BIOL 411 Invertebrate Zoology**
Structure, physiology, life history and natural history of invertebrate groups. Emphasis on local fauna. Two hrs. lecture, two 2-hr. labs. Spring, odd-numbered years. Prerequisite: BIOL 150 or BIOL 160.

**BIOL 412 General Parasitology**
Principles of parasite structure, function, life cycles and host-parasite relationships. Two hrs. lecture, two 2-hr. labs. Spring, odd-numbered years. Prerequisites: BIOL 150 or BIOL 160, CHEM 202.

**BIOL 414 Quantitative Analysis of Vertebrate Populations**
A survey of quantitative techniques used to describe, analyze and model vertebrate wildlife population phenomena and interactions between populations. Two hrs. lecture, one 3-hr. lab. Spring. Prerequisites: MATH 120 or a course in calculus, MATH 109/209; BIOL 150, 160 or 161.

**BIOL 417 Ichthyology**
The study of fishes, with emphasis on structure and function, development, behavior, ecology and systematics. Two hrs. lecture, one 2-hr. lab. Fall, even-numbered years. Prerequisite: upperclass standing in biology or wildlife/fisheries management.

**BIOL 420 Fish Management and Culture**
Contemporary problems in fisheries management. The study of fish culture; alternatives of commercial harvest and culture. Field trips. Three hrs. lecture. Spring, odd-numbered years. Prerequisite: senior or graduate standing, MATH 109/209 or permission of instructor.

**BIOL 421 Sample Design and Analysis of Plant Communities**
Ecology of plant communities in the mid-Atlantic; plant community concepts and attributes; environmental factors influencing the distribution and abundance of plants: light, temperature, fire, soil, water; methods of sampling vegetation; quantitative analysis of vegetation data; multivariate methods of data interpretation including classification and ordination; collection and interpretation of field data; emphasis on modern computer methods. Two hrs. lecture, one 3-hr. lab. Fall. Prerequisites: BIOL 314, BIOL 340.

**BIOL 422 Herpetology**
The structure, behavior, ecology, evolution and taxonomy of amphibians and reptiles. Laboratory emphasis on identification, anatomy and ecology of local species; techniques of collecting, estimating population sizes, home ranges. Two hrs. lecture, one 3-hr. lab. Spring. Prerequisite: BIOL 150 or BIOL 160.

**BIOL 423 Mammalogy**
The structure, taxonomy, behavior, ecology, evolution and public health significance of mammals, and history of the science of mammalogy. Laboratory emphasizes anatomy, identification, capture techniques, habitat analysis, and home-range and population characterization. Three hrs. lecture, one 3-hr. lab. Fall. Prerequisite: BIOL 150, BIOL 160 or permission of instructor.

**BIOL 425 Forest Ecology and Conservation**
Investigation of forest ecology, management, conservation, policy, research and history; silviculture, stand dynamics and improvement, reforestation, soils, disturbances and natural pests and pathogens. Patterns and processes of forest communities. Forest products and measurements. Two hrs. lecture, one 2-hr. lab. Fall. Prerequisite: BIOL 305.

**BIOL 426 Vertebrate Zoology**
The biology of vertebrates: origin, evolution, classification, structure, ecology, reproduction. Identification of regional examples. Three hrs. lecture, one 2-hr. lab. Spring, even-numbered years. Prerequisite: BIOL 150 or BIOL 160.

**BIOL 427 Comparative Anatomy**
Emphasis on structural relationships among fish, amphibians, reptiles, birds and mammals based on the evolution and development of organ systems. Dissection of representative chordates. Two hrs. lecture, two 2-hr. labs. Not open to students who have credit for former BIOL 327. Fall. Prerequisite: BIOL 150 or BIOL 160.

**BIOL 428 Ethnographic Field Techniques**
Practical training and experience using ethnographic field methods. Introduction to methods ethnographers use including mapping, unobtrusive observation, participant observation, ethnographic and life history interviewing, design and implementation of surveys and questionnaires, and an introduction to participatory research methodologies. A project component is included in the course. Three hrs. lecture. Spring, even-numbered years. Prerequisite: BIOL 128. Ethnobotany Capstone.

**BIOL 430 Introductory Limnology**
Inland waters; physical, chemical and biological aspects. An overview of hydrobiology. Laboratory emphasis on basic analysis of data from aquatic environments. Two hrs. lecture, two 2-hr. labs. Fall, odd-numbered years. Prerequisite: BIOL 340.

**BIOL 435 Molecular Biology**
Modern molecular concepts and techniques such as molecular cell function, DNA replication, PCR, protein synthesis; restriction enzyme analysis, DNA sequencing and DNA fingerprinting. Two hrs. lecture, two 2-hr. labs a week. Spring. Prerequisite: BIOL 310.

**BIOL 436 Molecular Biology Seminar**
Current topics in molecular biology presented by students, faculty and invited speakers coupled with analysis and discussion. Repeatable for maximum of 4 credits if topics are substantially different. Fall, even-numbered years. Prerequisites: senior standing, BIOL 435. Molecular Biology Capstone.

**BIOL 438 Biotechnology Lab**
Advanced techniques in molecular biology. Topics vary depending on instructors. Topics may include cell culture methods, PCR and DNA sequencing, immunocytochemistry, electrophoretic separation and analysis. Required for biotechnology concentration. One hr. lecture, two 2-hr. labs. Spring, even-numbered years. Prerequisites: junior or senior standing, BIOL 435.

**BIOL 439 Environmental Toxicology**
Interdisciplinary study of the major classes and properties of pollutants, ecotoxicology testing methods and their effects on living organisms and the ecosystem. Two hrs. lecture, two hrs. lab. Prerequisites: BIOL 149 and CHEM 202.
BIOL 440 Developmental Biology 4 cr. Classical and modern study of processes producing structural and functional changes during the development of plants and animals. Three hrs. lecture, two hrs. lab. Fall, even-numbered years. Prerequisite: BIOL 150 or BIOL 160.

BIOL 445 Immunology 4 cr. Introduction to the complex network of cells and soluble mediators that recognize and react to substances foreign to the individual. Principles of immunity, techniques resulting from the study of this system and pathologies resulting from its malfunction. Two hrs. lecture, two 2-hr. labs. Fall. Prerequisite: BIOL 304 or BIOL 310.

BIOL 450 Ecology and Management of Wildlife Populations 3 cr. Study of the factors that determine the distribution and abundance of wildlife populations and current management practices used to manipulate wildlife populations. Two-three field trips will be used to gain knowledge of regional management practices. Three hrs. lecture. Fall. Prerequisites: BIOL 340, and one from 406, 423 or 426.

BIOL 456 Advanced Microscopy 4 cr. Principles and techniques of light microscopy and scanning electron microscopy. Preparation of biological specimens for light microscopy (including immunofluorescence) and scanning electron microscopy. Two hrs. lecture, two 2-hr. labs. Spring, odd-numbered years. Prerequisite: cumulative GPA 3.0 or higher, BIOL 304 or 404, or permission of instructor.

BIOL 460 Forestry Field Practice 3 cr. A field-oriented overview of basic forestry. Includes field dendrology, silvics, elements of surveying and mapping, orienteering, log scaling, silviculture, timber cruising and wildlife techniques. Numerous field trips to regional forests. Summer Session, odd-numbered years. 1 cr. lecture, 2 cr. lab. Prerequisites: BIOL 305 and BIOL 425.

BIOL 465 Environmental Health 3 cr. Investigation of the relationship between human exposure to environmental pollutants and resultant adverse health effects. Consideration of epidemiology, exposure assessment, risk assessment and risk management. Variable. Also offered as GEOG 465. Prerequisite: completion of two laboratory science courses.

BIOL 484 Field Experiences in Ethnobotany and Ecology 3 cr. Unique field course where students gain practical training and experience using ecological and ethnographic field methods. Exploration of environmental impact issues is also part of the course. A research or service learning project is required. Additional travel fees may apply. Variable. Prerequisite: permission of instructor.

BIOL 490 Special Topics in Biology 2 to 4 cr. A "one time only" course on a special topic selected by the instructor. Variable. Repeatable for maximum of 4 credits if topics are substantially different. Prerequisite: permission of instructor.

BIOL 492 Wildlife-Fisheries Seminar 1 cr. Current topics in Wildlife and Fisheries presented by students, faculty and invited speakers, coupled with analysis and discussion. For majors in wildlife & fisheries. Variable. Repeatable for maximum of 4 credits if topics are substantially different. Prerequisite: junior, senior or graduate standing in biology or wildlife/fisheries. Wildlife & Fisheries Capstone.

BIOL 494 Field Experiences in Biological Sciences 2 to 6 cr. Work experience with a federal, state or private agency or industry related to the student's major. Faculty sponsor, project approval and final report by the student required. Variable. Repeatable for maximum of 12 credits if placement sites are different. Prerequisites: biology, wildlife & fisheries, or interpretive biology and natural history majors only; junior or senior standing. Interpretive Biology & Natural History and Biology (Environmental Science concentration) Capstone.

BIOL 496 Seminar in Biology 1 cr. Current topics in biology presented by students, faculty and invited speakers, coupled with analysis and discussion. Variable. Repeatable for maximum of 4 credits if topics are substantially different. Prerequisite: senior standing. Capstone for Biology and Biology Pre-Health Professions option.

BIOL 497 Readings in Biology 1 cr. Discussion of readings on selected topics. One period per week. Repeatable to 2 credits. Variable. Repeatable for maximum of 2 credits if topics are substantially different. Prerequisites: junior or senior standing, biology major or minor, permission of the instructor, completion of request form before registering. (The department allows only a total of 2 credits in the readings courses 497 and/or 498.)

BIOL 498 Honors Program — Readings in Biology 1 cr. Discussion of readings on selected topics. One period per week. Repeatable to 2 credits. Variable. Repeatable for maximum of 2 credits if topics are substantially different. Prerequisites: senior standing, biology major, 3.0 average in major and completion of request form before registering. (The department allows only a total of 2 credits in the readings courses 497 and/or 498.)

BIOL 499 Special Problems in Biology 2 or 3 cr. Experimental research directed by a staff member. Variable. Repeatable for maximum of 12 credits if topics are substantially different. Prerequisites: 20 credits in biology, junior or senior standing, permission of instructor, approval of the Department Chair, completion of request form before registering.

Business Administration

BUAD 100 Introduction to Business 3 cr. Introduction to the internal and external environment of contemporary business and a survey of basic concepts, principles, and practices of business organizations. Basic business terminology and concepts for beginning students seeking an introduction to the business world or assistance in making career decisions. Does not count towards business or accounting majors. Every semester.

Business Law

BLAW 291 Legal Environment of Business 3 cr. The workings and importance of legal institutions; the law as a system of social thought and social action. The analysis and study of the law of contracts, agency, employment, negotiable instruments, real property, personal property, sales and insurance. Credit cannot be earned for both BUAD 291 and BLAW 291. Every semester. Additional prerequisite or corequisite: MGMT 110 for all ACCT, BUAD, and ECON majors (Business Economics Concentration) only.

Business Management Information Systems

BMIS 320 Advanced Computer Applications in Business 3 cr. Managerial applications of the microcomputer most often encountered in business. Word processing for report writing, spreadsheets for financial modeling, graphics for presentations, desktop publishing for business use and management data base applications using commercial programs. Variable. Prerequisites: MATH 118 and COSC 220 or COSC 260. Repeatable to 2 credits. (The department allows only a total of 2 credits in the readings courses 497 and/or 498.)

BMIS 455 Management Information Systems 3 cr. Relation of MIS to the management functions of planning, control, and decision making. Concepts that underlie MIS: systems management, databases, computers, telecommunications, and general systems design and implementation. Every semester. Prerequisite: MGMT 251.
**CHEM 100 Chemistry and Society**

- **Credits:** 4 cr.
- Examines the modes of research, the development of modern chemical principles, and the application and subsequent impact of these developments on society. Not intended for natural science majors. Three hrs. lecture, one 2-hr. lab. Every semester. GEP Group C.

**CHEM 101 General Chemistry I**

- **Credits:** 4 cr.
- Atomic and molecular structure, theories of covalent and ionic bonding, chemical reactions, states of matter, gas laws, solutions, reaction rates, stoichiometry and thermochemistry. Two hrs. lecture, 2 hrs. discussion and one 2-hr. lab. Math Level 1 required. GEP Group C.

**CHEM 102 General Chemistry II**

- **Credits:** 4 cr.
- Acid-base concepts, equilibria, thermodynamics, electrochemistry, reaction rates, coordination compounds and organic, nuclear and descriptive chemistry. Three hrs. lecture, one 3-hr. lab. Every semester. You cannot earn credit for both CHEM 102 and 202. Prerequisites: CHEM 201 and MATH 102/119.

**CHEM 103 Foundations of Chemistry**

- **Credits:** 3 cr.
- Introduction to fundamental concepts, methodology and nomenclature of chemistry, including data analysis, atomic structure, inorganic compounds, chemical equations and reactions, stoichiometry, states of matter, solutions. No laboratory. Every semester. Prerequisite: Math Level I. Corequisite: DVMT 100.

**CHEM 113 Honors: Chemistry and Society**

- **Credits:** 4 cr.
- Examines the models of research, the development of modern chemical principles and the application and subsequent impact of these developments on society. Both reading and writing components will be more challenging than those in CHEM 100. Credit cannot be earned for both CHEM 100 and CHEM 113. Three hrs. lecture, 2 hrs. lab and 1 hr. recitation. Every semester. Prerequisite: Admission to Honors Program or permission of instructor. GEP Group C.

**CHEM 130 Computational Techniques in Chemistry**

- **Credits:** 2 cr.
- Introduction to and application of the fundamental methods, tools and techniques essential to solve chemical problems. Regular topics include statistical, mathematical and computational tools; data analysis; and use of chemical sources. Additional topics explored will augment student needs and supplement area of current interest in chemistry. One hour lecture, one 2-hr. lab. Fall. Credit cannot be earned for both CHEM 304 and 304. Prerequisites: CHEM 201 and 202 or equivalent, or permission of the instructor. Tech. fluency.

**CHEM 133 General Chemistry for Engineers**

- **Credits:** 3 cr.
- A math-intensive lecture-only general chemistry course designed for engineering students. Topics include intermolecular forces, thermodynamics, chemical kinetics, catalysis, chemical equilibria, acid-base equilibria, electrochemistry and nuclear chemistry. Fall. Prerequisites: CHEM 201 or permission of instructor.

**CHEM 150 General, Organic and Biochemistry**

- **Credits:** 4 cr.
- Survey of key chemistry concepts in general, organic and biochemistry for non-science majors. Two hrs. lecture, 2 hrs. recitation and one 2-hr. lab. Math Level 1 required. GEP Group C.

**CHEM 201 General Chemistry I**

- **Credits:** 4 cr.
- Atomic and molecular structure, theories of covalent and ionic bonding, chemical reactions, states of matter, gas laws, solutions, reaction rates, stoichiometry and thermochemistry. Two hrs. lecture, 2 hrs. discussion and one 2-hr. lab. Every semester. You cannot earn credit for both CHEM 101 and 201. Prerequisites: C or better in CHEM 103 or placement at Chemistry Level 2 or higher and Math Level II or higher. Corequisite: MATH 102/119 or permission of instructor. GEP Group C. Note: for information on Chemistry Level placement, see Department Chair.

**CHEM 202 General Chemistry II**

- **Credits:** 4 cr.
- Acid-base concepts, equilibria, thermodynamics, electrochemistry, reaction rates, coordination compounds and organic, nuclear and descriptive chemistry. Three hrs. lecture, one 3-hr. lab. Every semester. You cannot earn credit for both CHEM 102 and 202. Prerequisites: CHEM 201 and MATH 102/119.

**CHEM 205 Environmental Chemistry**

- **Credits:** 3 cr.
- Theory and applications of modern instruments for chemical analysis. Electronics, spectrometric, electrochemical and chromatographic techniques. Laboratory use of NMR, IR, UV, AA and GC instruments. Three hrs. lecture, one 3-hr. lab. Spring. Prerequisites: CHEM 304 or permission of instructor.

**CHEM 206 Quantitative Analytical Chemistry**

- **Credits:** 1 cr.
- Application of techniques of experimental organic chemistry. Organic reactions and synthesis. One 3-hr. lab. Every semester. Not open to students who have credit for former CHEM 302. Prerequisites: CHEM 311 and CHEM 312 or equivalent. Corequisite: CHEM 322.

**CHEM 211 Advanced Inorganic Chemistry**

- **Credits:** 4 cr.
- Covers the application of symmetry operations and group theory to elucidate the bonding and spectroscopy of transition metal complexes. Selected topics in inorganic reaction mechanisms, photochemistry, catalysis and bio-inorganic chemistry will then be examined using these theoretical approaches. Three hrs. lecture, one 3-hr. lab weekly. Spring, odd-numbered years. Prerequisite: CHEM 321 or permission of instructor.

**CHEM 212 Physical Chemistry Laboratory I**

- **Credits:** 3 cr.
- Theory and applications of the principles of physical chemistry. Equilibria, gas laws, thermodynamics, electrochemistry, structures and properties. Three hrs. lecture. Fall. Prerequisites: CHEM 320 and 321, MATH 238 and PHYS 215 and 216 or equivalent or permission of instructor.

**CHEM 213 Physical Chemistry Laboratory II**

- **Credits:** 1 cr.
- Continued study of compounds of carbon. Three hrs. lecture. Every semester. Not open to students who have credit for former CHEM 302. Prerequisites: CHEM 311 and CHEM 312 or equivalent. Corequisite: CHEM 322.

**CHEM 214 Organic Chemistry Laboratory I**

- **Credits:** 4 cr.
- Introduction to techniques of experimental organic chemistry: separations, purifications, spectroscopy, mechanistic analysis. One 3-hr. lab. Every semester. Not open to students who have credit for former CHEM 301. Prerequisite: CHEM 202 or equivalent. Corequisite: CHEM 311.

**CHEM 215 Organic Chemistry Laboratory II**

- **Credits:** 1 cr.
- Experimental organic chemistry. One 3-hr. lab. Fall. Prerequisite or corequisite: CHEM 441.
CHEM 455 Biochemistry I  3 cr.
The chemistry and metabolism of biological compounds, biochemical thermodynamics, enzyme mechanisms and kinetics. Three hrs. lecture. Fall. Prerequisite: CHEM 321, BIOL 149 or permission of the instructor.

CHEM 456 Biochemistry Laboratory  3 cr.
Qualitative and quantitative laboratory experiments on the nature and properties of biological materials. Two three-hr. labs. Spring. Prerequisites or corequisites: CHEM 322 and 455.

CHEM 457 Biochemistry II  3 cr.

CHEM 460 Environmental Chemistry  3 cr.
An investigation into the chemical nature of the environment. Development of the chemical interactions found in the atmosphere, hydrosphere, lithosphere and biosphere. Energy and energy usage also discussed. Three hrs. lecture. Spring, odd-numbered years. Prerequisites: CHEM 201, 202 and any of the following: BIOL 430, GEOG 432, CHEM 320 or 420.

CHEM 490 Selected Topics in Chemistry  1 to 3 cr.
Specialized topics such as theoretical organic chemistry, spectroscopy, photochemistry, quantum chemistry or stereochemistry. Repeatable for a maximum of 6 credits. Variable. Prerequisite: 24 credits in chemistry or permission of instructor.

CHEM 491 Seminar in Chemistry  1 cr.
Current topics in chemistry presented by students, faculty and invited guests. One period weekly. Required for majors. Every semester. Prerequisites: CHEM 305 and 320.

CHEM 492 Capstone Experience  1 cr.
An integrated senior-year experience that requires students to use their accumulated skills, knowledge and experiences to present their own research and a portfolio demonstrating important laboratory skills. Required for all chemistry majors. Every semester. Prerequisite: CHEM 491 or permission of instructor.

CHEM 493 Advanced Chemical Research  1 to 8 cr.
Original student investigations in analytical, inorganic, physical, organic, and biochemistry involving both library and laboratory work, planned and executed under faculty guidance. A formal, publication-quality report and a seminar presentation are required. Research projects must be approved by the department and the instructor prior to registration in the course. Repeatable for a maximum of 8 credits. Prerequisite: CHEM 441, junior standing in chemistry, and permission of department chair.

CHEM 495 Internship in Chemistry  1 to 6 cr.
Guided work experience. Work must be directly related to academic program. Grade P/F. Variable. Prerequisites: C or better in Organic Chemistry I (CHEM 311 and CHEM 312); in good academic standing; submission of Agreement Form to Department Chair prior to registering, departmental approval. May not be used to satisfy the requirements for a minor in chemistry.

CHEM 499 Special Problems in Chemistry  1 to 6 cr.
Methods and techniques of basic research. Repeatable for a maximum of 6 credits. Every semester. Prerequisite: permission of department chair.

CMST 102 Introduction to Human Communication  3 cr.
Fundamental theory and practice of human communication in dyadic, small-group and public situations. Every semester.

CMST 112 Honors: Introduction to Human Communication  3 cr.
Fundamental theory and practice of human communication in dyadic, small-group and public situations. Student-led discussions, activities. Variable. Prerequisite: admission to Honors Program or written permission of instructor.

CMST 122 Introduction to Public Speaking  3 cr.
Introduction to, and guided application of, basic principles which underlie effective public speaking and listening in informative, persuasive, and ceremonial speeches. Spring.

CMST 215 Small Group Communication  3 cr.
Principles and practice of communication in small, task-oriented groups. Interaction of task and social dimensions. Problem-solving groups and decision-making principles and methods. Spring.

CMST 225 Interviewing  3 cr.
Communication in informational, appraisal, employment, persuasive and research interviews. Focuses on selecting and structuring questions to achieve specific objectives and on strategies of collecting, analyzing and reporting qualitative data for research. Fall. Prerequisite: CMST 102/112.

CMST 300 Interpersonal Communication  3 cr.
Study of the face-to-face dyad as the fundamental human communication relationship. Implications for other communication modes and settings. Fall. Prerequisite: CMST 102/112 or CMST 132 or permission of instructor.

CMST 302 Argumentation and Advocacy  3 cr.
Analysis, construction and communication of logical arguments in a variety of decision-making contexts. Spring. Prerequisite: CMST 102/112 or CMST 122 or permission of instructor.

CMST 312 Language Behavior and Communication  3 cr.
Processes of human language that enhance or limit thought and expression; development of language and symbolizing; relationship of thought to language; effects of language behavior. Spring. Prerequisite: CMST 102/112 or permission of instructor.

CMST 322 Presentational Communication  3 cr.
Theory and practice of orally presenting ideas to reach audience-centered goals. Use of technology in activities common to communication-related careers. Spring. Prerequisites: CMST 102/112 or CMST 122, or permission of instructor.

CMST 332 Organizational Communication  3 cr.
Theory, practices and analysis of organizational communication, with emphasis on applying practical knowledge in current and future organizational contexts. Includes creation of an organizational portfolio and preparation for the capstone experience for majors. Fall. Prerequisite: CMST 102/112 or permission of instructor.

CMST 345 Conflict Management  3 cr.
Examines the normal, inevitable nature of conflicts with strategies for managing and resolving conflicts in interpersonal, community, organizational, and global contexts. Spring. Prerequisite: CMST 102/112 or permission of instructor.

CMST 350 Intercultural Communication  3 cr.
Explores concepts, theories and communication skills relevant to understanding and managing cross-cultural conflicts in interpersonal, organizational, regional and global contexts. Analyzes and develops skills needed to open channels of communication between and among people of diverse backgrounds as students gain an experiential understanding of the interconnections between communication and culture. Fall. Prerequisite: CMST 102/112 or permission of instructor.

CMST 355 Political Communication  3 cr.
Overview of the role of communication in contemporary political life. Political communication theories, political campaign communication, media and political communication, propaganda and the role of political communication in promoting a deliberative democracy. Fall. Prerequisite: CMST 102/112 or permission of instructor.

CMST 365 Environmental Communication  3 cr.
Development, adaptation and critical analysis of environmentally themed messages for particular audiences. Variable.

CMST 422 Seminar in Rhetorical Criticism  3 cr.
Criteria and methods of rhetorical analysis of significant public discourse and cultural artifacts. Application to traditional and contemporary modes of public communication. Fall, even-numbered years. Prerequisite: CMST 102/112 or permission of instructor.

CMST 451 Seminar in Communication Theory  3 cr.
Examination of classical and contemporary concepts and methods by which the human communication process is explained. Application to realistic settings. Fall. Prerequisite: CMST 102/112 or permission of instructor.
CMST 485 Issues and Responsibilities of Communication 3 cr.
Study of how free speech functions in relation to communication in the United States and the ethical responsibilities of communicators in interpersonal, public, artistic and professional situations. Fall. Prerequisite: CMST 102/112 or permission of instructor.

CMST 490 Special Topics in Communication Studies 3 cr.
Study, research or applied experience related to an announced selected topic. Repeatable for maximum of 9 credits if topics are substantially different. Variable. Prerequisite: permission of instructor.

CMST 492 Internship Project 3 cr.
Academic component of internship experience, in conjunction with CMST 495. Graded A through F. Summer. Corequisites: CMST 495. Prerequisites: CMST 102/112, CMST 335, CMST 451 and one additional 3-credit CMST course, plus permission of instructor. Capstone.

CMST 494 Communication Studies Practicum 1 to 3 cr.
Supervised field experience for Communication Studies majors. Participation in the communication operations of a commercial, governmental or educational organization. Repeatable for maximum of 3 credits. Every semester. Prerequisites: CMST 102, CMST 335, CMST 451 and one additional 3-credit CMST course, plus permission of instructor. Capstone.

CMST 495 Internship in Communication 6 or 12 cr.
Experiential component of internship: guided work experience directly related to student's academic program. Full-time intern must register for 12 credits in CMST 495, 3 credits in CMST 492 and may not enroll in any other courses. Part-time intern must register for 6 credits in CMST 495 and 3 credits in CMST 492. Graded P/F. Summerv. Prerequisites: Junior/Senior status, not on probation; declared major in communication studies, minimum 12 cr. in communication studies and 2.5 GPA in major; Internship Agreement Form approved by department internship director before registering.

CMST 499 Directed Study 1 to 6 cr.
Intensive study through faculty-directed projects or papers. Hours arranged. Variable. Prerequisite: permission of Department Chair.

Computer Science & Information Technologies

COSC 100 Introduction to Computer Science 3 cr.
A survey of the historical, technological and societal aspects of computing with a practical component involving contemporary software applications. Topics include past and future computing, hardware, software, computer systems, data representation and processing, and social and ethical concerns of computing. Practical applications include word processors, spreadsheets, graphics packages, Email, Internet and web page development basics. Every semester. Tech. Fluency.

COSC 101 The Discipline of Computer Science 3 cr.
Survey of the discipline of computer science covering history, hardware development, number systems, Boolean logic, algorithm development, programming languages, computability, artificial intelligence, introduction to programming, social implications and ethics. Every semester. Tech. Fluency.

COSC 102 Foundations of Computer Science 4 cr.
Introduction to the foundations of computer science. Topics include memory addressing, computer functions, architectures found in computer science, digital logic circuits, correctness of computer algorithms, finite-state automata, computability, recursion, and O-notation and efficiency of algorithms. Three hrs. lecture, 2 hrs. lab. Every semester. Prerequisite: Level III or above on the mathematics placement test, or a Level II mathematics course.

COSC 110 Honors: Introduction to Computer Science 3 cr.
A survey of the historical, technological, and societal aspects of computing with a practical component involving contemporary software applications and a programming component using a modern, high-level language. Topics include past and future computing, hardware, software, algorithms, computer systems, data representation and processing, and social and ethical concerns of computing. Practical applications include word processors, spreadsheets, programming languages, graphics packages, Email, Internet and web page development basics. Credit cannot be earned for both COSC 100 and COSC 110. Fall. Prerequisite: acceptance into the Honors Program or permission of instructor. Tech. Fluency.

COSC 120 Introduction to Cyberspace 3 cr.
Survey of Cyberspace including all Internet services, communications and networking, Internet protocols, file types, multimedia and a summary of Web programming techniques. The practical component covers e-mail, chat, teleconferencing, file transfer, newsgroups, mailing lists and the World Wide Web. For a semester project, you will search for and develop a basic Web site presenting Internet resources in your major discipline; this site should be a valuable personal reference that can be updated throughout your education and career. Every semester.

COSC 130 Introduction to Programming 3 cr.
Introduction to visual object-oriented computer programming; development of software stages, using Universal Modeling Language (UML); object-oriented concepts including object representation and modularization. Every semester.

COSC 200 Software Applications for Business 3 cr.
Survey of hardware, introduction to software used in business applications, microcomputer operating system, graphics, word processing, spreadsheet, database management systems and network communication software for microcomputers. Every semester. Tech. Fluency.

COSC 201 Computer Science I 4 cr.
Introduces the fundamental concepts of programming: Simple data types, control structures, array and string data structures, algorithms, debugging techniques and the social implications of computing. Emphasizes good software engineering principles and developing fundamental programming skills in the context of a language that supports the object-oriented paradigm. Three hours lecture; two hour lab. Every semester. Credit may not be earned for both COSC 200 and COSC 240. Prerequisites: Grade of C or better in COSC 101 and test at level 3 or above on mathematics placement test or grade of C or better in MATH 102/119 or corequisite enrollment in MATH 102/119.

COSC 240 Computer Science II 4 cr.
Continues introduction to the methodology of programming from an object-oriented perspective. Design and implementation of data structures used in programming such as linked lists, stacks and queues. Internal sorting and searching. Recursion. Performance analysis of algorithms. Three hours lecture; two hour lab. Every semester. Credit may not be earned for both COSC 201 and COSC 241. Prerequisite: Grade of C or better in COSC 240 and corequisite of COSC 102.

COSC 300 Structured Systems Analysis and Design 3 cr.
Analysis and design of information processing systems. Topics include system development life cycle: study phase, design phase, development phase, operation phase. Student will design and analyze a simple system. Spring. Prerequisite: Grade of C or better in COSC 240 or grade of C or better in ITEC 315.

COSC 305 Computer Ethics 3 cr.
Ethical issues related to computing. Includes topics such as responsibility of the computer professional, computerized crime, technology and employment, equitable access to computing, national databases and privacy, software ownership and responsibilities of the computing profession. Every semester. Prerequisite: Grade of C or better in COSC 240; or grade of C or better in COSC 100/110 or COSC 101 and a grade of C or better in COSC 130.

COSC 310 Data Structures and Algorithm Analysis 3 cr.
Design and implementation of intermediate and advanced data structures and a rigorous introduction to the asymptotic analysis of algorithms. Topics include Huffman coding trees; binary search trees; splay trees; height-balanced binary search trees; general trees; graphs; hash tables; skip lists; multilists; omega, theta and omicron notation; and limits to computation. Research paper and presentation required. Fall. Prerequisites: MATH 336 and a grade of C or better in COSC 241.

COSC 320 Business Programming 3 cr.
Design and implementation of business programming using COBOL. Writing programs to generate reports from sequential data files. Report formatting and paging techniques; edited PIC clauses; control breaks, sorting table and table processing, sequential, indexed and relative files. Every semester. Prerequisite: Grade of C or better in COSC 241.
COSC 325 Software Engineering 3 cr.
Techniques and methodologies of software engineering. Topics include quality assurance, software protection and security. Every semester. Prerequisite: Grade of C or better in COSC 241.

COSC 330 Web Design and Development 3 cr.
A practical study of the design and development of Web sites, covering design principles, authoring applications, authoring languages, hypermedia, techniques for user interactivity, and Web programming. The practical component gives hands-on experience with each of these topics and introduces scripting with JavaScript; these lab exercises provide the expertise to complete, as a course project, a Web site presenting an advanced aspect of Web technology that the student researches. Every semester. Prerequisite: Grade of C or better in COSC 120 or permission of the instructor.

COSC 331 Fundamentals of Computer Networks 3 cr.
Introduction to computer networking using TCP/IP protocol suite. Topics include application layer, transport layer, network layer, data link layer, physical layer and socket programming. Every semester. Prerequisite: COSC 241.

COSC 335 Advanced Topics in Computer Networks 3 cr.
Introduction to advanced concepts in computer networks. Topics include wireless and mobile networks, multimedia communication, network security, network management and quality of service. Fall. Prerequisite: Grade of C or better in COSC 331.

COSC 345 The Internet and Multimedia Communications 3 cr.
Introduction to protocols and applications of multimedia communications. Topics include multimedia networks, compression methods, network protocols, end to end multicast and multimedia application. Variable. Prerequisite: Grade of C or better in COSC 331.

COSC 350 Low-Level Programming Concepts 3 cr.
Introduction to assembly language programming and to the architecture of the computer as seen from the programmer’s point of view. Topics include the virtual machine concept, data representation, Boolean operations, the instruction execution cycle, memory management, integer and floating-point arithmetic, low-level procedures, interrupt handling, instruction encoding and the high-level language interface. Every semester. Prerequisite: Grade of C or better in COSC 240.

COSC 365 Digital Logic 4 cr.
Basic switching theory. Design and analysis of combinational logic circuits and synchronous sequential systems. Minimization techniques, Boolean algebra, Karnaugh maps and number systems. Programmable logic and basic computer architecture. Register transfer language. Memory decoding, microprogramming and bus structure and operation. Detailed study of an actual simple minicomputer or microcomputer system. Every semester. Prerequisite: Grade of C or better in COSC 241. COSC 350 recommended.

COSC 380 Computer-Based Information Systems 3 cr.
Computer information systems from a system planning perspective. Topics include digital communication evaluation, distributed resources, distributed processing and decision-making models. Several case studies are analyzed. Fall. Prerequisite: Grade of C or better in COSC 240.

COSC 390 Topics in Modern Programming Languages 1 to 3 cr.
A modern programming language will be covered. Topics include the syntax and semantics of the language as well as the language programming environment. Example programs will deal with applications particularly suited to the chosen language. Students will be required to design and implement a major programming project. Variable. Prerequisite: Grade of C or better in COSC 241.

COSC 394 Field Experience for Non-Majors 3 cr.
Work experience in industry, government, or small business providing opportunity for practical application of academic training in computer/information science. Course requirements: (1) minimum of 90 hours of field experience and (2) written report and oral presentation. Previous work experience may not be substituted. May not be applied toward major in Computer Science or Information Systems. Every semester. Prerequisites: junior or senior standing and completion of COSC 240 with a grade of C or better.

DEPARTMENT APPROVAL REQUIRED PRIOR TO REGISTERING.

COSC 415 Computer Interfacing 3 cr.
Basic digital computer interfacing, combining digital electronics, programming, and computer architecture. Topics include transducers, electronic amplification, D/A and A/D conversion, data sampling, data storage and retrieval, laboratory exercises in discrete and integrated software, survey of commercially available interface devices. Two hrs. lecture and 3 hrs. lab per week. Variable. Prerequisites: PHYS 216 or PHYS 262 and PHSC 315 or PHYS 332, grade of C or better in COSC 240, or permission of the instructor. Also offered as PHYS 415.

COSC 420 Robotics and Computer Control 3 cr.
Introduction to the field of robotics: applications, safety, sensors, Robotics Languages Model for Computer Aided Design (CAD), speech recognition and generation. Integration of robots with artificial intelligence. Variable. Prerequisite: PHYS 215 or PHYS 261, Grade of C or better in COSC core classes and permission of the instructor.

COSC 431 Secure Computing 3 cr.
Topics include elementary cryptography, program security, security in general-purpose and trusted operating systems, database security, network security, security administration, and legal/privacy/ethical issues in computer security. Variable. Corequisite: COSC 460.

COSC 435 Network Implementation and Testing 3 cr.
Introduction to implementation and testing of networks. Topics include OSI layers, network topologies, LAN technologies, internetworking, network operating systems, and network file system. Variable. Prerequisites: Grade of C or better in COSC 331 and COSC 365.

COSC 440 Database Management Systems 3 cr.
Introduction to database management systems. Topics include database design, database models such as entity-relationship and normalization. Practical use of data definition languages and data manipulation language of a commercial database management system such as Oracle. Variable. Prerequisite: Grade of C or better in COSC 241.

COSC 444 Introduction to Distributed Programming 3 cr.
Introduction to distributed systems implementation using a distributed language. Topics include distributed architecture comparison, overview of distributed languages, creation of several distributed applications. Variable. Prerequisite: Grade of C or better in COSC 331.

COSC 445 Network Programming 3 cr.
Introduction to network programming. Topics include computer networks and communication protocols, socket programming, interprocess communication and network application development. Variable. Prerequisite: Grade of C or better in COSC 331.

COSC 450 Programming Language Principles & Paradigms 3 cr.
Features of existing programming languages and underlying concepts. Syntax and semantics, simple statements, grouping of statements, scopes and storage allocations, subroutines. List processing and string manipulation languages. Fall. Prerequisite: Grade of C or better in COSC 310.

COSC 455 Artificial Intelligence 3 cr.
An introduction to knowledge representation and inference, logic, semantic networks, frames and rule-based. Natural language processing; pattern recognition, pattern association and computer vision. Variable. Prerequisite: Grade of C or better in COSC 241.

COSC 460 Operating Systems Concepts 3 cr.
Process management, scheduling, time slicing, concurrency, mutual exclusion, semaphores, resource management, memory mapping, virtual systems, mass storage, file systems. Case studies of operating systems. Research paper and presentation required. Every semester. Prerequisite: Grade of C or better in COSC 241 and COSC 365.

COSC 465 Computer Systems Architecture 3 cr.
Architecture of large computing systems. Instruction set architecture and RISC. Design of high-speed arithmetic units, I/O subsystems, DMA and channels. Interrupt structures. Horizontal vs. vertical microprogramming. Memory system hierarchy with emphasis on cache, virtual memory and interleveling. Introduction to parallel processing and advanced architectural trends. Variable. Prerequisite: Grade of C or better in COSC 365.

COSC 470 Compiler Design and Implementation 3 cr.
A detailed study of the concepts and techniques used in design and construction of a compiler. Topics include: lexical analysis, syntactic and semantic analysis, intermediate code generation, final code generation and optimization techniques. Each student will be required to design and implement a functional compiler or interpreter for a given language. Spring. Prerequisites: Grade of C or better in COSC 310 and COSC 365, and corequisite enrollment in COSC 485.
COSC 475 Interactive Computer Graphics 3 cr.
Concepts of computer graphics. Terminology and programming primitives, raster vs. vector hardware, interaction devices, software packages, geometrical transformations, two- and three-dimensional viewing, hidden line and surface removal, object hierarchy. Variable. Prerequisite: Grade of C or better in COSC 241.

COSC 480 Knowledge-Based Systems 3 cr.
Concepts of knowledge-based systems with an emphasis on expert systems. Topics include production systems, building of knowledge-based systems and future trends with expert systems. Variable. Prerequisite: Grade of C or better in COSC 241.

COSC 485 Introduction to the Theory of Computation 3 cr.
Basic theoretical principles embodied in formal languages, automata, computability, and computational complexity. Emphasis is placed on developing formal descriptions of computers and computational processes, and practical implications of theoretical results. Variable. Prerequisites: Grade of C or better in COSC 310.

COSC 489 Capstone Course 1 cr.
Creation of professional vita, formation of portfolio consisting of student's best examples of programs and research papers. Amalgamation of curricular concepts into a unified entity. Every semester. Prerequisites: Senior standing and completion of all core courses and grade of C or better in at least two required advanced courses.

COSC 491 Seminar in Computer Science 1 to 6 cr.
Group study of advanced topics under faculty supervision; up to 3 credits may apply to major or minor in Computer Science. Repeatable for maximum of 6 credits if topics are substantially different; up to 3 credits count toward major or minor. Variable. Prerequisite: Grade of C or better in core courses and written permission of faculty supervisor. DEPARTMENTAL APPROVAL REQUIRED PRIOR TO REGISTRATION.

COSC 494 Field Experience in Computer/Information Science 3 cr.
Work experience in industry, government, or small business providing an opportunity for practical application of academic training in computer/information science. The course requirements are: (1) a minimum of 90 hours of field experience, (2) a written report detailing in detail the work performed in the field in conjunction with an oral presentation to interested faculty and students and (3) a project paper on a topic related to the work experience. Previous work experience may not be substituted for this course. Repeatable for maximum of 6 credits if placement sites are different; up to 3 credits count toward major or minor. Every semester. Prerequisite: Grade of C or better in core courses and written permission of faculty supervisor. DEPARTMENTAL APPROVAL REQUIRED PRIOR TO REGISTRATION.

COSC 499 Individual Problems in Computer Science 1 to 6 cr.
Individual advanced projects under faculty supervision; up to 3 credits may apply to major or minor in Computer Science. Students must submit a written, clear proposal to faculty supervisor and department. This proposal must be detailed enough to describe topics, time allocation and limitations, objectives, assignments and projects. Repeatable for maximum of 6 credits: up to 3 credits count toward major or minor. Every semester. Prerequisites: Grade of C or better in core courses and written permission of faculty and supervisor. DEPARTMENTAL APPROVAL REQUIRED PRIOR TO REGISTRATION.

Secure Computing and Information Assurance

SCIA 103 Foundations of Secure Computing & Information Assurance 4 cr.
Introduction to the foundations of secure computing and information assurance. Computer functions, digital logic circuits, correctness of algorithms, O-notation and efficiency of algorithms. Introductory mathematical material from such fields as probability theory, computational theory, complexity theory, group theory, information theory, graph theory and number theory. Three hrs. lecture, 2 hrs. lab. Every semester. Prerequisite: Level III or above on mathematics placement test, or a Level II mathematics course.

SCIA 120 Introduction to Secure Computing & Information Assurance 3 cr.
Broad overview of computing security. Importance of securing digital information, operating systems security, secure programming, and secure digital communications. Physical security, social engineering, operating systems security, malware, network security, Internet security, cryptography, security models and practices, distributed-applications security, and cloud computing security. Every semester.

SCIA 210 Introduction to Cyber Law 3 cr.
Overview of federal and state laws that impact computer security, information assurance, and other aspects of security. Examines how laws have adapted and/or been implemented in relationship to the digital age and living in an online society. Computer crimes, identity theft, sexual harassment, intellectual property, plagiarism, cyber stalking, medical issues, and financial concerns. Torts, liability, securities, antitrust laws, bankruptcy, and hiring/termination. Every semester.

SCIA 325 Software Security Engineering 3 cr.
Overview of existing processes, standards, life-cycle models, frameworks, and methodologies that support secure software development. Properties of secure software, requirements engineering, architecture and design, construction and testing, system integration/assembly, and governance and management. Threat modeling, defensive programming, web security and human-computer interaction issues that affect security. Variable. Prerequisites: Grade of C or better in COSC 241 and SCIA 120.

SCIA 335 Network Security 3 cr.
Cryptography basics for network security, network- related authentication applications, Email security, IP security, web security, network management security, intruders and malicious software, IDSS and firewalls. Variable. Prerequisites: Grade of C or better in COSC31 and SCIA 120.

SCIA 340 Secure Databases 3 cr.
Securing data and information, monitoring communications and auditing database environments. RDBMS, SQL, database communications, database authentication, access control in databases, encryption in databases, database auditing, and databases in the cloud. Variable. Prerequisites: Grade of C or better in COSC 240 and SCIA 120.

SCIA 360 Operating System Security 3 cr.
Fundamental principles of operating systems and operational security, including process and resource management, security capabilities and limitations, authentication, security policies, sandbox, software vulnerabilities, and virtualization. Case studies of operating systems. Variable. Prerequisites: Grade of C or better in COSC 241 and SCIA 120.

SCIA 370 Security Policy and Assessment 3 cr.
Information security concepts, security risk management processes, information security lifecycle, security planning and policy, business continuity planning, security assessment and system availability, security review and security audit, security standards. Variable. Prerequisite: Grade of C or better in SCIA 120.

SCIA 425 Software Testing and Assurance 3 cr.
Survey of quality processes and technologies for software development to assure that new software provides sufficient security for the threat environment and functions in the intended manner. Quality and security requirements and specifications; quality in architecture, design, and construction; correctness verification, inspection, and testing techniques; process and product assurance: statistical quality control; and quality management. Variable. Prerequisite: Grade of C or better in SCIA 25.

SCIA 435 Access Control 3 cr.
Access control objectives, formal models and mechanisms, access control of commercial off-the-shelf systems, and security architecture for authorization. Implementation of access control in current systems. Variable. Prerequisite: Grade of C or better in SCIA 335.

SCIA 460 Cloud Computing and Security 3 cr.
Cloud computing basic concepts, architecture, and framework; current popular cloud computing technologies; security challenges and risk facing in cloud computing; concepts, methods, procedures and tools for assuring security in cloud computing. Variable. Prerequisite: Grade of C or better in SCIA 335.

SCIA 470 Computer and Network Forensics I 3 cr.
Forensic tools, methods, and procedures used for investigation of computers; techniques of data recovery and evidence collection, protection of evidence, expert witness skills, and computer crime investigation techniques. Analysis of various file systems and specialized diagnostic software used to retrieve data. Variable. Prerequisites: Grade of C or better in SCIA 210 and SCIA360.
### Criminal Justice - Dance

**SCIA 471 Computer and Network Forensics II**  
3 cr.  
Forensic methodology, procedures and tools associated with different kinds of cybercrime in a network environment. Importance of network forensic principles, legal considerations, digital evidence controls, and documentation of forensic procedures. Variable. Prerequisite: Grade of C or better in SCIA 470.

**SCIA 472 Hacking Exposed and Incident Response**  
3 cr.  
Common network attacks, applications of information security concepts, hands-on security assessments of wired and wireless networks, web applications and intrusions, countermeasures to attacks, lifecycle of incident response, real world case studies. Variable. Prerequisite: Grade of C or better in SCIA 471.

**SCIA 480 Applied Cryptography**  
3 cr.  
Basics of design of secret codes for secure communication, including encryption and integrity verification: ciphers, cryptographic hashing, and public key cryptosystems, mathematical principles underlying encryption, cryptanalysis concepts, and cryptographic protocols. Variable. Prerequisite: Grade of C or better in SCIA 335.

**SCIA 485 Emerging Issues and Cyber Warfare**  
3 cr.  
Current issues, trends and challenges in information warfare; high-level analysis of information warfare threats, such as cyber terrorism, espionage, Internet fraud; intelligence activities, cyber ethics, and law enforcement. Variable. Prerequisite: Grade of C or better in SCIA 335.

**SCIA 489 Capstone**  
1 cr.  
Creation of professional vita and a portfolio consisting of student’s best examples of programs, projects, and research papers. Integration of curricular concepts into a unified entirety. Administration of degree exit exam. Every semester. Prerequisites: Senior standing, completion of all core courses and a grade of C or better in at least two required advanced courses.

**SCIA 491 Seminar in Secure Computing & Information Assurance 1-6 cr.**  
Group study of advanced topics under faculty supervision; repeatable for maximum of 6 credits if topics are substantially different; up to 3 credits count towards major or minor in Secure Computing & Information Assurance. Variable. Prerequisites: Grade of C or better in core courses and written permission of faculty supervisor. DEPARTMENT APPROVAL REQUIRED PRIOR TO REGISTERING.

**SCIA 494 Field Experience in Secure Computing & Information Assurance**  
3 cr.  
Work experience in industry, government, or small business providing an opportunity for practical application of academic training in Secure Computing & Information Assurance. The course requirements are: (1) Minimum of 90 hours of field experience; (2) A written report describing in detail the work performed in the field in conjunction with an oral presentation to interested faculty and students; (3) A project paper on a topic related to the work experience. Previous work experience may not be substituted for this course. Repeatable for maximum of 6 credits if placement sites are different; no more than 3 credits count towards major in Secure Computing & Information Assurance. Every semester. Prerequisites: Junior or senior standing and completion of the core courses in Secure Computing & Information Assurance with a grade of C or better. DEPARTMENT APPROVAL REQUIRED PRIOR TO REGISTERING.

**SCIA 499 Individual Problems in Secure Computing & Information Assurance**  
1-6 cr.  
Individual advanced topics under faculty supervision. Repeatable for maximum of 6 credits; up to 3 credits can apply to major or minor in Secure Computing & Information Assurance. Students must submit a written proposal to faculty supervisor and department describing topics, time allocation and limitation, objectives, assignment, and projects. Variable. Prerequisites: Grade of C or better in core courses and written permission of faculty supervisor. DEPARTMENT APPROVAL REQUIRED PRIOR TO REGISTERING.

### Criminal Justice

**CRJU 490 Advanced Topics in Criminal Justice**  
1-3 cr.  
Selected topics in criminal justice relating to law enforcement or corrections. Does not duplicate any other FSU course. May be repeated for credit if topics are substantially different. Variable. Prerequisite: POSC 324 or permission of instructor.

**CRJU 494 Field Experience**  
6-9 cr.  
Guided work experience in a criminal justice agency. Minimum 225 work hours of experience for 6 credits; 339 work hours for 9 credits. Academic component of course consists of at least one writing project and an oral presentation. Variable. Prerequisite: POSC 324 or course equivalent.

### Dance

**DANC 110 Dance Appreciation**  
3 cr.  
Dance forms, dance personalities, contemporary trends in dance. Every semester. GEP Group A.

**DANC 131 Ballet I**  
2 cr.  
Beginning ballet techniques, terminology and history. Fall, even-numbered years.

**DANC 154 Jazz I**  
2 cr.  
Beginning jazz dance techniques, history and terminology. Fall, odd-numbered years.

**DANC 165 Tap I**  
2 cr.  
Beginning tap technique, history and terminology. Spring, even-numbered years.

**DANC 231 Ballet II**  
3 cr.  
Intermediate ballet techniques, history and terminology. Spring, odd-numbered years. Prerequisite: DANC 131 or permission of instructor.

**DANC 254 Jazz II**  
3 cr.  
Intermediate jazz techniques, history and terminology. Spring, even-numbered years. Prerequisite: DANC 154 or permission of instructor.

**DANC 255 Dance Company I**  
3 cr.  
Application of procedures in auditioning, learning choreography, rehearsals, and production of both individual and company dance pieces as a member of FSU Dance Company culminating in public performances. Participation in all rehearsals and performances required. Lecture/Lab. Repeatable for a maximum of 12 credits. Every semester. Prerequisite: permission of instructor after formal audition.

**DANC 265 Tap II**  
3 cr.  
Intermediate tap technique, history and terminology. Fall, even-numbered years.

**DANC 305 Improvisation**  
3 cr.  
Exploration of movement designed to enhance creativity, freedom and spontaneity. Fall, even-numbered years.

**DANC 309 Composition and Theory**  
3 cr.  
Development of creative process through exploration of choreographic works, movement concepts and compositional concepts. Spring, even-numbered years. Prerequisite: DANC 131, DANC 154, DANC 165 or permission of instructor.

**DANC 342 Contemporary Modern**  
3 cr.  
Movement class exploring the fusion of traditional modern dance techniques with contemporary dance. Fall, odd-numbered years. Prerequisite: DANC 131 or permission of instructor.

**DANC 355 Dance Company II**  
3 cr.  
Application of procedures in auditioning, learning choreography, creating and teaching choreography, rehearsals, and production of both individual and company dance pieces as a member of FSU Dance Company culminating in public performances. All students are required to compose, cast, teach, and rehearse their dance composition for public performance as part of the Dance Company Concert. Student choreographers are required to meet all deadlines established at the start of the course. Participation in all rehearsals and performances required. Lecture/Lab. Repeatable for a maximum of 12 credits. Every semester. Prerequisite: Three credits of DANC 255 and permission of instructor after formal audition.

**DANC 361 Dance for Musical Theatre**  
3 cr.  
Study of dance techniques, styles and genres used in musical theatre productions. Spring, odd-numbered years. Prerequisite: DANC 154, 165 or permission of instructor.

**DANC 382 Dance History**  
3 cr.  
History of theatrical dance in Western culture and the role of dance in humankind, a thematic approach. Variable. Prerequisite: DANC 110 or permission of instructor.
ECON 200 Basic Economics
Introduction survey course covering both Macro and Microeconomics designed to provide minimum competence for majors other than business, accounting and economics. Not open to students who have already completed ECON 201 and ECON 202 with grades of C or above. Every semester. GEP Group D.

ECON 201 Principles of Economics (Macro) 3 cr.
An introduction to Principles of Economics focusing primarily on the forces determining the economy-wide levels of production, employment, and prices. Examines monetary and fiscal policy and alternative views of how the economy should be managed. Every semester. GEP Group D.

ECON 202 Principles of Economics (Micro) 3 cr.
An introduction to Principles of Economics focusing primarily upon individual consumer and producer decision making behavior in various organized market structures; the price system, market performance, efficiency and government policy. Every semester. Prerequisite: ECON 201/211.

ECON 211 Honors: Principles of Macroeconomics 3 cr.
An introduction into the forces at work in the national economy including income, employment, and the monetary system. A variety of written research assignments on current topics in macroeconomics required. Credit cannot be earned for both ECON 201 and 211. Fall. Prerequisite: acceptance into the Honors program or permission of the instructor. GEP Group D.

ECON 212 Honors: Principles of Microeconomics 3 cr.
Examines markets, consumer behavior, market structures, resource pricing, income distribution, and general equilibrium. Spring. Prerequisites: ECON 201 or 211.

ECON 300 History of Economic Thought 3 cr.
The historical evolution of economic doctrines from early times to the present; the relation of economics to social issues. Views and significance of major schools of thought. Spring. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 301 Labor Economics 3 cr.
The theory of labor supply and demand, labor force participation, investment in human capital, compensating wage differentials, government regulation, employment, unemployment, unionism, discrimination, wage-related income transfers and pensions. Spring. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 303 American Economic History 3 cr.
Development from colonial times to the present. The industrial revolution and the impact of technological change upon such areas as transportation, agriculture, business organization, unions, the banking system, and public policy. Fall, odd-numbered years. Prerequisites: ECON 200; or ECON 201/211 and ECON 202/212.

ECON 305 Managerial Economics 3 cr.
Applications of micro-economic theory to management practices. Topics may include demand estimation and forecasting; production and cost; pricing in various market structures; and special topics in firm decision making. Fall. Prerequisites: ECON 201/211 and ECON 202/212; and MATH 118 or MATH 220 or MATH 236.

ECON 306 Money and Banking 3 cr.
The nature and functions of money, credit, banking, and the Federal Reserve System. Institutions generating the money supply; the influence of monetary and fiscal policies on economic stability and growth. Every fall. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 307 Government, Business, and Public Policy 3 cr.
Economic aspects of the relation of government and business in the United States; antitrust, economic, and social regulation of business. Spring, even-numbered years. Prerequisites: ECON 200; or ECON 201/211 and ECON 202/212.

ECON 309 Comparative Economic Systems 3 cr.
Analysis of ideology and problems in different economic systems: capitalism, Marxism, and socialism. Comparisons of centrally planned and unplanned economies; free market pricing and direct controls; private enterprise and nationalized industry. Spring, even-numbered years. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 351 Intermediate Macro-Economics 3 cr.
General theory, both Keynesian and post-Keynesian, of the growth of the economy as a whole. Monetary theory, fiscal policy, and review of macroeconomic issues. Fall. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 352 Intermediate Micro-Economics 3 cr.

ECON 400 International Trade 3 cr.
An explanation of the pure theory of international trade and its application to trade policy; comparative advantage: gains from trade; tariffs, quotas, and other barriers to trade. Fall. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 401 International Finance 3 cr.
The theory of international finance and its application to international monetary policy; international monetary and capital movements; the balance of payments and adjustment mechanisms; alternative exchange rate systems. Spring. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 404 Public Sector Economics 3 cr.
Government taxes and expenditures for economic stability and growth; tax equity, efficiency, and incidence; government services; relationship of monetary and fiscal policies. Spring, odd-numbered years. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 405 Economics of Developing Countries 3 cr.
Survey of underdeveloped economies. Theories of economic development and their application; appraisal of programs in selected developing countries. Fall. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 408 Urban and Regional Economics 3 cr.
Focuses on applied economic analysis of the regional economy and areas within the regional economy. Techniques introduced include economic base analysis, shift share analysis and input-output modelling. Fall, even-numbered years. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 410 Resource and Energy Economics 3 cr.
Economic analysis of problems and policies affecting natural resource and energy industries and the related impacts on the environment. Analytical economic framework used to study energy, mineral, forest, and fisheries industries. Spring, odd-numbered years. Prerequisite: ECON 202/212 or permission of the instructor.

ECON 450 Quantitative Economics 3 cr.
Introduction to the use of calculus, matrix algebra, Lagrangean constrained optimization and linear programming in economics. Spring. Prerequisites: ECON 201/211 and ECON 202/212.

ECON 460 Introduction to Econometrics 3 cr.
Applies economic theory, mathematics, and statistical techniques for the purpose of testing hypotheses about economic phenomena, estimating coefficients of economic relationships, and forecasting economic events. Fall. Prerequisites: ECON 201/211, ECON 202/212 and MATH 109/209/110/380.
EDUC 201 Phase I Teaching & Professional Assessment Laboratory 1 cr. 
Through a series of short video-taped teaching sessions, students acquire skill in assessing their own strengths and weaknesses as teachers. Students will write instructional objectives, prepare lesson plans and teach a series of 10-minute lessons to their peers. Includes screening for selected teaching proficiencies. This course is required in all teacher education programs. Graded P/F. Every semester. Prerequisite: admission to Phase I. Corequisite: enrollment in EDUC 202.
EDUC 202 Students, Teachers and Learning Environments 3 cr. 
A study of students, teachers and learning environments, including the philosophical and historical foundations of the American educational system. Basis for further study in education, including topics on legal and ethical issues and diversity. Controlled observations in educational settings. Every semester. Prerequisite: EDUC 100.
EDUC 202 Foundations of Learning and Instruction 3 cr. 
The learning and teaching process in the American educational system. Human growth and development of students birth-21, learning theories and styles, instructional strategies and adaptations. Controlled observations in educational settings. Every semester. May be taken Pre-Phase or concurrently with Phase I. Recommended to be taken after EDUC 201.
EDUC 210 Educational Psychology 3 cr. 
General principles of the psychology of learning and teaching; emphasis on laws of learning, conditions of learning, efficient learning, improving study habits, diagnosis and evaluation of the learner. Variable.
EDUC 290 Field Experiences in Education 1 to 3 cr. 
Supervised field experiences for teacher education students in school and non-school settings focusing on specific problems identified by students. Repeatable for maximum of 6 credits. Graded P/F. Every semester. Prerequisite: permission of department chair, with written proposal for a field problem approved prior to registering.
EDUC 300 Phase II Teaching and Professional Assessment Laboratory .5 cr. 
Video-taped teaching segments with students in school settings. Skills practice and analysis using various teaching models, classroom management techniques and assessment practices. Participation in seminars on current topics in education. Screening for selected academic and instructional proficiencies. Graded P/F. Every semester. Prerequisite: admission to Phase II and concurrent enrollment in Phase II methods and appropriate field work experiences.
EDUC 310 Diversity & Social Justice in Education 3 cr. 
Educational diversity, equity and social justice in public education; emphasis on development of individual identity in the context of economic class, religion, ethnicity, race, gender, sexual orientation and other factors; exploration of best practices for teachers and administrators to create inclusive learning environments. Experiential component: minimum of 12 hours of field work in diverse public school settings; some field work options may require additional expenses. Required of all secondary education majors. Variable.
EDUC 316 Early Adolescent Literacy and Learning 3 cr. 
The middle school movement, developmental characteristics of middle grades students, teaching in the middle grades, middle grades philosophy and organization. Clinical field experiences. Every semester. Prerequisite: EDUC 100, to be taken Pre-Phase or concurrent with Phase I.
EDUC 335 Teaching Framework 2 cr. 
Analysis of education in America and self-assessment to determine match between abilities and demands of the education profession. Students will write instructional objectives, prepare lesson plans and teach a series of lesson plans to their peers to determine strengths and weaknesses. Initial portfolio development and reflection. Fall semester. Prerequisite: admission to Phase I in the Early Childhood/Elementary program at USMH.
EDUC 346 Educational Technology Lab I 1 cr. 
Experiences and practice in using technology to support any curriculum. Experiences are assimilated into professional practice. Emphasis on use of technology within the context of accomplishing authentic tasks. Every semester. May be satisfied by portfolio and performance assessment examination. Prerequisite: Phase I admission or permission of department.
EDUC 354 General Music Methods in the Elementary School 3 cr. 
Music teaching, emphasizing the elementary school level: materials and techniques of instruction for general music classes; general educational theories and their relevance to music education; computer-assisted instruction and integrated technology; facility with accompanying folk instruments; and exposure to the Orff, Kodaly and Dalcroze approaches to music education. Required in junior year of all students desiring certification in music. Prerequisite: admission to Phase II of the Teacher Education Program and junior standing in the Music program.
Music teaching emphasizing the secondary school level: materials and techniques for general music classes, computer-assisted instruction and integrated technology, facility with accompanying folk instruments, historical and philosophic foundations of music education and program development and instructional design. Required in junior year of all students desiring certification in music. Prerequisites: EDUC 354 and admission to Phase II of the Teacher Education Program.
EDUC 376 Special and Multicultural Education 3 cr.
Characteristics of exceptional children. Understanding how exceptionalities, American culture, race, ethnicity, gender, socio-economic class, religion, age, language and intellectual ability influence learning. Historical and legal influences on American schools and community agencies. Applicable teaching methods. Controlled observations included. Every semester. Prerequisite: Phase I admission.

EDUC 390 Field Experience in Early Childhood Education 3 cr.
Supervised field experiences for Early Childhood candidates in Head Start and/or other pre-school settings. Develops knowledge, skills and dispositions of age-appropriate environments. Includes analysis of children's needs and examines and assesses human and curricular environments. Enables candidates to plan physically and psychologically safe, supportive and healthy learning environments in early childhood settings. Includes some class work. Taken for 3 credit hours during Phase I of the ECE/ELEM major's professional sequence. ECE specialization. Graded P/F. Every semester. Prerequisite: Phase I admission or permission of department.

EDUC 391 Teaching Internship I: Secondary Education 2 cr.
Initial internship practicum at secondary school level. Graded P/F. Fall.

EDUC 392 K-12 Field Experience 1 to 2 cr.
Teacher assistantship in elementary and secondary settings. Requires 30 days of in-school aide experience at each level. Assignments coordinated with other Phase II courses. Graded P/F. Prerequisite: Phase II admission.

EDUC 401 Nursery-Eighth Grade Field Experiences I 1½ cr.
Teacher assistantship in N-8 school setting. Requires 90 hours of in-school experience. Assignments coordinated with Block I methods courses. Graded P/F. Every semester. Prerequisites: Phase II admission and concurrent enrollment in Block I.

EDUC 402 Nursery-Eighth Grade Field Experiences II 1½ cr.
Teacher assistantship in N-8 school setting. Requires 90 hours of in-school experience. Assignments coordinated with Block II methods courses. Graded P/F. Every semester. Prerequisites: Phase II admission and concurrent enrollment in Block II.

EDUC 403 Assessment and Management of Learning 3 cr.

EDUC 405 Leadership 2 cr.
Educational leadership in schools, communities and professional organizations. Professionalism emphasized. Last offered spring 2006. Prerequisite: Phase III admission.

EDUC 406 Leadership Seminar 2 cr.
Reflective self and peer evaluation of teaching performance in the classroom as a foundation for exploration of the leadership roles professional teachers are expected to play in the classroom, school, community and profession. Prerequisite: Phase III admission, concurrent enrollment in internship.

EDUC 410 Teacher Internship: P-8 3 cr.
A study of the research and materials for various models of teaching with the intent of securing objective feedback for making a sophisticated analysis of curriculum impact, teaching methods and teacher/student interaction. Graded P/F. Every semester. Prerequisite: Phase III admission.

EDUC 422 Leadership Seminar: P-8 3 cr.
Educational leadership in schools, communities and professional organizations. Elements of developmentally appropriate classroom management. Management strategies for student behavior, curriculum, materials and resources. Professionalism and advocacy emphasized. Every semester. Prerequisite: Phase III admission. Capstone.

EDUC 429 The School and Community 3 cr.
Role and participation of the community in public education today. Cooperation between public school and non-school educative agencies in the community. Participation in a field research project required. Variable.

EDUC 430 Desktop Publishing for Educators 3 cr.
Use a computer for publishing materials. Learn fundamental principles of publishing design. Learn how to produce published materials that can be used in the classroom. Design desktop publishing projects that will involve K-12 students. Plan for integration of desktop publishing into the curricula. Variable.

EDUC 432 Hypermedia & Multimedia: Educational Applications 3 cr.
Learn about hypermedia and multimedia. Become familiar with using a computer for hypermedia applications. Work with text, graphics, video and sound to create presentations and information exploration materials which incorporate various approaches to teaching and learning. Design hypermedia projects that will involve K-12 students. Plan for integration of hypermedia into the curriculum. Variable.

EDUC 434 LOGO: Ed. Programming and Instructional Techniques 3 cr.
Learn about Logo as a language for learning about computers, computer programming and thinking. Emphasis is on learner-controlled and learner-directed explorations of intellectual problems of interest. Variable.

EDUC 441 Classroom Discipline Strategies 3 cr.
For undergraduates who have had aiding or teaching internship and for practicing teachers. Emphasis on understanding child behavior in school. Democratic classroom setting. Variable. Prerequisite: Phase II completion.

EDUC 444 Cooperative Learning Workshop: Level I 3 cr.
A study of cooperative learning through an analysis of the underlying theory and observation; planning and implementation of cooperative learning activities. Summer.

EDUC 445 Strategic Reading and Writing in the Middle Grades 3 cr.
The middle school movement, the middle school student and curriculum, teaching in the middle school, middle school organization. Every semester. Prerequisites: Phase II admission and EDUC 316.

EDUC 446 Using Databases for Critical Thinking 1 cr.
Use databases in learning to organize, access, manipulate and evaluate information. Learn to find and interpret information, find patterns and make inferences based on established patterns. Develop techniques for using databases in elementary and secondary curricula. Variable.

EDUC 447 Educational Technology Lab II 1 cr.
Experiences and practice in using technology to support any curriculum. Experiences are assimilated into professional practice. Emphasis on use of technology within the context of accomplishing authentic tasks. Extension and refinement of Lab I experiences. Every semester. Prerequisite: Phase II admission.

EDUC 448 Educational Technology Lab III 1 cr.
Experiences and practice in using technology to support any curriculum. Experiences are assimilated into professional practice. Emphasis on use of technology within the context of accomplishing authentic tasks. Extension and refinement of Lab II experiences. Every semester. Prerequisite: appropriate phase admission and successful completion of Educational Technology Lab II.

EDUC 450 Art Education Methods for the Secondary Teacher 3 cr.
Curriculum, goals, content and organization of secondary art education. Theories of visual development and artistic behavior in age-appropriate students; materials, resources and processes for teaching art; classroom management; and technology applications. Two hrs. lecture, 2 hr. lab. Credit cannot be earned for both EDUC 450 and EDUC 308. Fall. Prerequisites: admission to Phase II or permission of the Department Chair; EDUC 392 and EDUC 451 recommended concurrently.

EDUC 451 Art Education Methods for the Elementary Teacher 3 cr.
Curriculum, goals, content and organization of elementary art education. Theories of visual development and artistic behavior in age-appropriate students; materials, resources and processes for teaching art; classroom management; and technology applications. Two hrs. lecture, 2 hr. lab. Credit cannot be earned for both EDUC 451 and EDUC 309. Fall. Prerequisites: admission to Phase II or permission of the Department Chair; EDUC 392 and EDUC 450 recommended concurrently.
EDUC 454 Microcomputer Application in Education 3 cr.
Introductory course to familiarize educators with microcomputers. Microcomputers as a teaching tool; innovations, systems of instruction, model programs, matching software to school children's needs. Every semester. Prerequisite: Phase II admission or permission of instructor.

EDUC 490 Special Topics in Education 1/2 to 6 cr.
Special workshop on a current topic, as arranged. Repeatable for maximum of 6 credits if topics are substantially different.

EDUC 497 Teaching Internship: K-12 Programs 12 cr.
Supervised practicum in teaching in elementary and secondary schools. Joint supervision by school system and University personnel. Daily, full day for one semester. Graded P/F. Every semester. Prerequisite: Phase III admission.

EDUC 499 Individual Problems in Education 1 to 3 cr.
Independent study under supervision. Research paper on special topic. Requires proposal approval through Dept. of Educational Professions prior to registering. Repeatable for maximum of 6 credits. Every semester, summer.

Early Childhood Education

ECED 150 Early Childhood Foundations 3 cr.
Introduction to profession of early childhood education. Includes growth and development of young children. Examines historic, theoretical and philosophical underpinnings of current early childhood programs. Explores play, learning environments and curriculum. Requires a case study focusing on young children. Every semester. Taken prephase, preferred before ECED 293 in the ECE/ELEM major's professional sequence. Required for ECE/ELEM major.

ECED 293 Early Childhood Learning Environment, Materials and Methods 3 cr.
Examination and assessment of developmentally appropriate environments, materials and methods for young children birth to age eight. Includes planning of physically and psychologically safe and healthy learning environments. Taken during prephase of ECE/ELEM major's professional sequence. Every semester. It is recommended that ECED 150 be taken prior to ECED 293.

ECED 431 Early Childhood Education Curriculum Development, Implementation and Assessment 3 cr.
Philosophy and function of early childhood education curriculum. Analysis of children's needs; planning, implementing and assessing a developmentally appropriate program. Includes use of effective strategies and development of positive supportive relationships. Taken Phase II Block II of ECE/ELEM major's professional sequence. Prerequisite: successful completion of ECED 443 or permission of the department.

ECED 438 Early Childhood Classroom Management 3 cr.
For the early childhood teacher: advanced teaching skills in nurturing the young child's social experiences, self-discipline, independence and creativity; arranging play experiences, organizing physical space, communicating with children, child study. Variable.

ECED 442 Administration and Supervision of Early Childhood Programs 3 cr.
Administrative and supervisory responsibilities for the early-childhood educator in providing quality programs for young children. Variable. Prerequisite: permission of instructor.

ECED 443 Adults in the Child's World 3 cr.
The early childhood educator's influence on and collaboration with the child's caregivers, families and communities; the use of local, state and national resources to meet child, family and community educational needs. Development of respectful reciprocal relationships with families and communities. Taken Phase II Block I of ECE/ELEM major's professional sequence. Every semester. Prerequisite: Phase II admission or permission of department.

Elementary Education

ELED 307 Block I Clinical and Professional Assessment Component 1 cr.
Supervised assisting at the early childhood, elementary and middle school levels. Joint supervision by school system and university personnel. Daily, full day field clinical experience. Graded P/N. May only be repeated once, upon approval of the program coordinator. Every semester. Prerequisite: admission to Phase II.

ELED 403 Assessment and Management of Learning 4 cr.
Component course of the 13 credit integrated Block II, Phase II of the elementary teacher education program. Block II courses center on the extension and refinement of basic concepts, skills, and information related to the teaching of mathematics, science, language arts and social studies. The major program themes of technology, integration, teaming, performance-based instruction, professionalism, diversity, service learning and career awareness are modeled and utilized as integrating threads. Focuses on the evaluation of students and instructional activities. Every semester. Prerequisite: admission to Phase II of the Teacher Education Program and recommendation of Phase I, Block I faculty team.

ELED 470 General Curriculum 3 cr.
Planning, constructing and organizing the school curriculum; types of curricula and current applications. Every semester. Prerequisite: Phase II admission or permission of Department Chair.

ELED 471 Mathematics Curriculum, Methods and Assessment 3 cr.
Planning, constructing and organizing curriculum; types of curricula. Methods, materials, content and assessment for teaching P-8 mathematics. Every semester. Prerequisite: admission to Phase II.

ELED 472 Language Arts Curriculum, Methods and Assessment 3 cr.
Planning, constructing and organizing curriculum; types of curricula. Methods, materials, content and assessment for teaching language arts. Every semester. Prerequisite: admission to Phase II.

ELED 474 Science Curriculum, Methods and Assessment 3 cr.
Planning, constructing and organizing curriculum; types of curricula. Methods, materials, content and assessment for teaching P-9 science. Every semester. Prerequisite: admission to Phase II.

ELED 475 Social Studies Curriculum, Methods and Assessment 3 cr.
Planning, constructing and organizing curriculum; types of curricula. Methods, materials, content and assessment for teaching P-9 social studies. Every semester. Prerequisite: admission to Phase II.

ELED 494 Teaching Internship I: P-9 6 cr.
Supervised practicum at the early childhood, elementary and middle school levels. Joint supervision by school system and university personnel. Daily, full-day clinical experience. When taken during the fall semester, includes a multiple-day beginning-of-school experience. Graded P/N. May only be repeated once, upon approval of the program coordinator. Every semester. Prerequisite: successful completion of admission requirements for Professional Development Schools.

ELED 495 Teaching Internship II: P-9 12 cr.
Supervised practicum at the early childhood, elementary and middle school levels. Joint supervision by school system and university personnel. Daily, full-day clinical experience. When taken during the fall semester, includes a multiple day beginning of school experience. Graded P/N. May only be repeated once, upon approval of the program coordinator. Every semester. Prerequisite: Successful completion of Internship I and admission requirements for Phase III. Capstone.

Guidance

GCUS 406 Introduction to Guidance 3 cr.
History and philosophy of guidance programs; the role, organization, and methods of guidance. Variable.
Reading

REED 317 Content Area Reading 3 cr.
Identification of the special reading demands in content areas and development of appropriate instructional activities. The reading process as it relates to content area learning. Research, best practices and instructional strategies. Required for all secondary and K-12 approved programs. Fall. Prerequisite: appropriate Phase admission.

REED 323 Process and Acquisition of Reading 3 cr.
Process of language development, including impact of phonemic awareness, and how the brain responds to reading acquisition. Practical applications of research in language development, acquisition and use. Understanding of the role of experiential background, prior knowledge, motivation and personal significance to emerging readers. Every semester. Prerequisite: Phase I admission.

REED 416 Reading and Language 3 cr.
Practical applications of research in language development, acquisition and use. Relevant to all education majors. Every semester. Prerequisite: Phase II admission.

REED 418 Reading and Writing Connections 3 cr.
Reading and writing activities in daily instruction. The role and use of authentic assessments in determining student reading performance and selection of materials appropriate to student ability levels. Not open to students with credit for former REED 318. Fall. Prerequisite: Phase II admission.

REED 420 Assessment for Reading Instruction 3 cr.
Understanding of the use of state, national, local and classroom reading assessment data to make ongoing instructional modifications as a strategy for prevention and intervention. Understanding of a variety of reading assessments and curriculum adjustments. Communicating assessment data about individual student reading performance to appropriate sources. Every semester. Prerequisite: successful completion of Block I.

REED 422 Practicum in Reading Instruction 3 cr.
Laboratory experience in correcting reading problems. Diagnosis and program planning. Tailoring of materials and techniques to the particular child. Variable. Prerequisite: REED 420.

REED 425 Materials and Motivations for Reading 3 cr.
Support for long-term motivation of developing readers within a framework of inquiry. Experience a variety of texts to be used in classes when reading for literary experience, reading to perform a task and reading for information. Apply strategies for selecting materials, retrieving and evaluating materials. Understanding of accessibility, variety of media, multicultural materials, text features and oral and written responses to literature. Knowledge of the role of parents in supporting reading programs. Every semester. Prerequisite: Block II admission or permission of the department.

REED 440 Children’s Literature 3 cr.
Content and form of children’s literature in books other than school textbooks. How to evaluate literature and use literary materials in teaching. Variable.

REED 450 Classroom Techniques in Diagnosis and Correction of Reading Difficulties 3 cr.
Lecture and laboratory to diagnose reading difficulties and plan corrective programs using a variety of materials and techniques in tutoring. Summer. Prerequisites: REED 420 and 422.

REED 473 Reading Instruction 3 cr.

Secondary Education

SCED 410 Secondary Methods and Curriculum 3 cr.

SCED 411 English in the Secondary School 3 cr.
Subject methods course required for secondary certification in teaching English. Modern trends in curriculum and instruction. Not open to students with credit for former SCED 311. Fall. Prerequisite: Phase II admission or permission of Department Chair; EDUC 391 recommended concurrently.

SCED 414 Mathematics in the Secondary School 3 cr.
Subject methods course required for secondary certification in teaching mathematics. Modern trends in curriculum and instruction. Not open to students with credit for former SCED 314. Fall. Prerequisite: Phase II admission or permission of Department Chair; EDUC 391 recommended concurrently.

SCED 415 Methods of Teaching Modern Foreign Languages 3 cr.
A general methods course for foreign-language majors seeking certification at the secondary level or elementary education majors seeking certification in teaching a language at the elementary level. (Does not certify a secondary language major to teach the elementary level.) Not open to students with credit for former SCED 315. Fall. Prerequisites: Phase II admission or permission of Department Chair; EDUC 391 recommended concurrently.

SCED 416 Business Education in the Secondary School 3 cr.
Methods of teaching business content and skill competencies, organization and evaluation of work experiences, and the leadership role of the teacher in the development of student organizations. Included are philosophy, aims, purposes and objectives of Business Education; planning, organizing and evaluating the educational process, facilities and equipment; survey techniques used in business; teacher role in developing attitudes and preparing students for lifelong learning. Proficiency in the skill areas required. Credit cannot be earned for both SCED 416 and SCED 316. Fall. Prerequisites: Phase II admission or permission of Department Chair; EDUC 391 recommended concurrently.

SCED 419 Science in the Secondary School 3 cr.
Subject methods course required for secondary certification in teaching science. Modern trends in curriculum and instruction. Not open to students with credit for former SCED 319. Fall. Prerequisites: Phase II admission or permission of Department Chair; EDUC 391 recommended concurrently.

SCED 420 Social Studies in the Secondary School 3 cr.
Subject methods course required for secondary certification in teaching social studies. Modern trends in curriculum and instruction. Not open to students with credit for former SCED 320. Fall. Prerequisites: Phase II admission or permission of Department Chair; EDUC 391 recommended concurrently.

SCED 430 Pedagogical Content Knowledge in the Secondary Disciplines 3 cr.
Secondary content, discipline-specific learning modules in lesson design and teaching methods focused on English Language Arts, Mathematics, Spanish Language & Literature, Science and Social Studies. Comparison of pedagogically appropriate application of content curriculum at the middle and high school levels in all secondary disciplines. Design of model unit plan and other key program assessments. Embedded clinical practice in local 7-12 schools. Required for secondary education majors. Fall. Prerequisite: Phase II admission.

SCED 496 Teaching Internship II: Secondary Education 6-12 cr.
Supervised practicum in teaching at secondary school level. Joint supervision by school system and University personnel. Daily, full day for one semester. Graded P/F. Spring. Prerequisite: Phase III admission or permission of Department Chair.

Special Education

SPED 451 Adapting Instruction in Diverse Classrooms 3 cr.
An understanding of the instructional and social development needs of the disabled and non-disabled students in inclusive classrooms. Special attention to collaboration, technology, legislation, educational programming, instructional strategies, inclusion models and current research related to the students enrolled in secondary school inclusion programs (middle/senior high school) and K-12 programs. Not open to students with credit for former SPED 361. Spring. Prerequisite: appropriate phase admission.
## Engineering Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENES 099</td>
<td>Introduction to Workshop and Machine Shop</td>
<td>1 cr.</td>
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<tr>
<td>ENES 102</td>
<td>Statics</td>
<td>3 cr.</td>
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<tr>
<td>ENES 220</td>
<td>Mechanics of Materials</td>
<td>3 cr.</td>
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<tr>
<td>ENES 221</td>
<td>Dynamics</td>
<td>3 cr.</td>
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<tr>
<td>ENES 310</td>
<td>Mechatronic and Robotic Design</td>
<td>3 cr.</td>
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<tr>
<td>ENES 320</td>
<td>Wind and Solar-Powered Generation System Design</td>
<td>3 cr.</td>
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<tr>
<td>ENES 321</td>
<td>Fluid Mechanics</td>
<td>3 cr.</td>
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<tr>
<td>ENES 330</td>
<td>Solid Mechanics</td>
<td>3 cr.</td>
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## Electrical Engineering

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<tbody>
<tr>
<td>ENEE 114</td>
<td>Programming Concepts for Engineers</td>
<td>4 cr.</td>
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<tr>
<td>ENEE 204</td>
<td>Basic Circuit Theory</td>
<td>3 cr.</td>
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<tr>
<td>ENEE 206</td>
<td>Fundamental Electric &amp; Digital Circuit Laboratory</td>
<td>2 cr.</td>
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<tr>
<td>ENEE 241</td>
<td>Numerical Techniques in Engineering</td>
<td>3 cr.</td>
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<tr>
<td>ENEE 244</td>
<td>Digital Logic Design</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENEE 303</td>
<td>Analog and Digital Electronics</td>
<td>3 cr.</td>
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**Course Descriptions**

**SPED 461 Characteristics of Exceptional Children**
3 cr.
Etiology, diagnosis, physical, emotional and social characteristics of exceptional children, including the gifted, retarded and physically handicapped. Variable.

**SPED 462 Intro. to the Education of Exceptional Children**
3 cr.
Understanding the educational needs of exceptional children; preventive and remedial education. Variable.

**SPED 463 Teaching Children with Special Needs**
3 cr.
Observation, identification and management of children with mild to moderate learning problems. Variable. Prerequisite: permission of instructor.

**SPED 481 The Gifted Learner**
3 cr.
Study of recent research on characteristics, needs and problems of gifted learners; model programs; future possibilities. Variable. Prerequisite: PSYC 150 or EDUC 201 or permission of instructor.

**SPED 482 Curriculum for the Gifted Learner**
3 cr.
Theoretical and practical approaches to teaching gifted learners; constructing unique plans for each teacher's needs. For those who will deal with gifted learners. Prerequisite: at least one course in curriculum.

**ENES 099 Introduction to Workshop and Machine Shop**
General knowledge of the available resources required for upper level physics and engineering courses. Hands-on and demonstration activities. Strong emphasis on personal safety and procedures while using the department workshop and machine shop space and equipment. One hr. integrated lecture and lab. Fall. Does not count for credit toward the 120 hours required for graduation.

**ENES 100 Introduction to Engineering Design**
FSU Course: Introduction to the engineering design process, computer software for word processing, spreadsheet, CAD and communication skills. Students work as teams to design and build a project. Two hrs. lecture and two hrs. recitation per week. Every semester.

**ENES 102 Statics**
FSU Course. The equilibrium of stationary bodies under the influence of various kinds of forces. Forces, moments, couples, equilibrium, trusses, frames and machines, beams and friction. Vector and scalar methods are used to solve problems. Three hrs. lecture and one hr. discussion/recitation per week. Spring. Prerequisite: MATH 236.

**ENES 220 Mechanics of Materials**
FSU Course. 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. Fall. Prerequisites: ENES 102, MATH 237, PHYS 261.

**ENES 221 Dynamics**
FSU Course. 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. Two hrs. lecture and two hrs. lab per week. Fall. Prerequisites: PHYS 261, ENES 102, MATH 237.

**ENES 310 Mechatronic and Robotic Design**
Components of mechatronics systems and robotics. Control of electromechanical systems. Material handling systems, numerical controlled tools, flexible manufacturing systems. Sensors, transducers, actuators, data acquisition and computer interfacing. Process control systems. Dynamics of electromechanical systems, design considerations and contemporary practical issues. Two hrs. lecture and two hrs. lab activities per week. Fall. Prerequisite: ENME 350 or ENEE 204 or permission of department chair.

**ENES 320 Wind and Solar-Powered Generation System Design**
Comparison of wind turbine types. Types of photovoltaic (PV) modules. Grid-connected, backup and off-grid systems. Structure and feasibility of wind and PV generation system. Design considerations related to wind and solar-powered energy generation systems: capacity factor, cost analysis, power quality and environmental issues. Two hrs. lecture and two hrs. lab per week. Spring. Prerequisite: PHYS 264 or permission of department chair.

**ENES 401 Fundamentals of Energy Engineering**
Principles of thermodynamics: conventional and alternative energy sources and storage systems. Integration of alternative sources of energy and distributed generation. Energy conservation, environmental impacts of energy use, energy sustainability. Spring. Prerequisites: Physics 263, and permission of the department chair or senior standing.

**ENES 491 Engineering Seminar**
2-3 crs.
Individual reports and group discussions on current topics in Engineering and the role of various science fields in Engineering. Topics selected jointly by student and instructor. Preparation of proposal for a research project. Review of basic concepts in mechanics, electrodynamics, thermodynamics, and atomic physics. Variable. Prerequisites: Majors with junior or senior standing. Repeatable once for credit.

**Electrical Engineering**

**ENEE 114 Programming Concepts for Engineers**
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. Three hrs. lecture and two hrs. recitation per week. Spring. Corequisite: ENES 100.

**ENEE 204 Basic Circuit Theory**
Basic circuit elements: resistors, capacitors, inductors, sources, mutual inductance and transformers; their I-V relationships. Kirchhoff’s Laws. DC and AC steady-state analysis. Phasors, node and mesh analysis, superposition, theorems of Thévenin and Norton. Transient analysis for first- and second-order circuits. Three hrs. lecture and one hr. discussion/recitation per week. Spring. Prerequisite: PHYS 262. Corequisite: MATH 432.

**ENEE 206 Fundamental Electric & Digital Circuit Laboratory**
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. One hr. lecture and three hrs. lab per week. Spring. Prerequisite: ENEE 244. Corequisite: ENEE 204.

**ENEE 241 Numerical Techniques in Engineering**

**ENEE 244 Digital Logic Design**
Gates, flip-flops, registers and counters. Karnaugh map simplification of gate networks. Switching algebra. Synchronous sequential systems. PLAs. Elements of binary arithmetic units. Three hours of lecture and one hour of discussion/recitation per week. Fall. Prerequisites: ENEE 114.

**ENEE 303 Analog and Digital Electronics**
Introduction to the conceptual physical operation of PN-junction diodes, MOSFETs and bipolar transistors (BJTs). Large signal terminal characteristics of PN junction diodes, bipolar and MOSFET transistors. Digital electronics is covered at the transistor level, including the inverter, NAND and NOR gates. Semiconductor memory. Basic transistor circuit configurations, including the BJT common emitter (CE) and common collector (CC) circuits, and the MOSFET common source (CS) and common drain (CD) configurations. DC bias and small-signal analysis of BJTs and MOSFETs. Simple multitransistor circuits, including the differential-amplifier and the current mirror. Frequency response of simple amplifiers. Fall. Prerequisites: "C" or better in ENEE 204, 206 and 244. Corequisite: ENEE 307 or permission of department chair.
**ENEE 307 Electronics Circuits Design Laboratory**  
2 cr.  
I-V properties of diodes and transistors through simple experiments. Analysis, design and construction of digital and analog electronic circuits at the transistor and integrated circuit levels. Operation and design of relevant multi-transistor circuits. BJT forward active operation by study of CE design, bias and small-signal operation. MOS common source operation, study of inverters, NAND and NOR gates. Simulation and analysis of Random Access Memory (RAM). Study of basic transistor configurations and frequency response by building a high-fidelity audio amplifier. Differential amplifiers, active loads, current mirrors and principles of feedback through the construction of opamps from discrete components. Experiments will be tightly aligned to the ENEE 303 lectures. Not open to students who have credit for former ENEE 306. One hr. lecture, three hrs. lab per week. Fall. Prerequisites: "C" or better in ENEE 204, 206 and 244. Corequisite: ENEE 303 or permission of the department chair.

**ENEE 313 Introduction to Device Physics**  
3 cr.  
Basic physics of devices, including crystal structure, fields in solids and properties of electrons, and holes, including diffusion and energy distributions. Current flow in Si by drift and diffusion, equations of motion of particles, p-n junction, depletion, fields and potentials, depletion and diffusion capacitance, and current flow under forward and reverse bias. Operation of bipolar junction and metal-oxide field effect transistors, their physical structure, operation thresholds, current flow, capacitance and current-voltage characteristics. Spring. Prerequisites: "C" or better in ENEE 204, 206, 244.

**ENEE 322 Signal and System Theory**  
3 cr.  
Concept of linear systems, state space equations for continuous systems, time and frequency domain analysis of signals and linear systems. Fourier, Laplace and Z transforms. Application of theory to problems in electrical engineering. Fall. Prerequisites: ENEE 204 and MATH 432.

**ENEE 324 Engineering Probability**  
3 cr.  
Axioms of probability, conditional probability and Bayes' rules, random variables, probability distribution and densities, functions of random variables, weak law of large numbers and central limit theorem. Introduction to random processes, correlation functions, spectral densities and linear systems. Applications to noise in electrical systems, filtering of signals from noise, estimation and digital communications. Spring. Prerequisite: ENEE 322.

**ENEE 350 Computer Organization**  
3 cr.  
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. Three hrs. lecture and one hr. discussion per week. Fall. Prerequisites: "C" or better in ENEE 204, 206 and 244.

**ENEE 380 Electromagnetic Theory**  
3 cr.  
Study of electromagnetic fields, Coulomb's law, Gauss's law, electrical potential, method of images, boundary value problems, multipole expansion, Biot-Savart law, Ampere's law, Lorentz force equation, Faraday's law and Maxwell's equations. Fall. Prerequisites: PHYS 263 and junior standing. Corequisite(s) MATH 452.

**ENEE 381 Electromagnetic Wave Propagation**  
3 cr.  
The electromagnetic spectrum: Review of Maxwell's equations; the wave equation potentials, Poynting's theorem, relationship between circuit theory and fields; propagation of electromagnetic waves in homogeneous media and at interfaces; transmission line theory, wave-guides, radiation and antennas. Spring. Prerequisite: PHYS 312.

**ENEE 408 Capstone Design Project**  
3 cr.  
Culmination of prior course work in 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 offered include analog and digital electronic circuits, electromechanical systems and devices, control systems, signal processing, and instrumentation. 1.5 hrs. lecture and 3 hrs. lab per week. Spring. Prerequisite: permission of department. Repeatable to 6 credits maximum if content differs.

**ENEE 417 Microelectronics Design Laboratory**  
2 cr.  
Senior class capstone project laboratory. The design and building of sophisticated circuits, mainly composed of discrete transistors and integrated circuits. Project-based synthesis of knowledge from varied disciplines within electrical engineering. One hour of lecture and three hours of lab per week. Variable. Prerequisites: "C" or better in ENEE 303, ENEE 307 and ENEE 312 or permission of the department chair.

**ENEE 435 Introduction to Wireless Sensor Networks**  
4 cr.  
Background on networking, range of applications for WSN, various sensors, communication, protocol model, wireless transmission technology for WSN, concept of sensor motes, basic architectural elements, Medium Access Control Protocols, routing protocols, transport protocols, middleware and operating systems for WSN. Variable. Prerequisites: Completion of all ENEE 100- and 200-level courses with a “C” or better or permission of department chair.

**ENEE 439 Topics in Signal Processing**  
1-3 cr.  
Selected topics in signal processing. For electrical engineering majors only. Variable. Repeatable up to 6 credits. Prerequisites: Completion of all ENEE 100- and 200-level courses within core with a ”C” or better or permission of department chair.

**ENEE 461 Control Systems**  
4 cr.  
Design criteria, characteristics and limitations of modern control systems. Sensors, feedback, PID control. Servomechanisms, control of various physical quantities such as temperature, pressure, liquid level, etc. Dynamics, performance criteria and stability of control systems. Computer-based process control. Errors in control systems. Three hrs. lecture and three hrs. lab per week. Variable. Prerequisites: Completion of all 100- and 200-level core courses with a “C” or better or permission of the department chair.

**ENEE 475 Power Electronics**  
3 cr.  
Basic principles of power electronics and its applications. Analytical methods, canonical circuit topologies, fundamentals of power semiconductors, snubbing circuits, drive circuits and control methods. Variable. Prerequisite: "C" or better in ENEE 303 or permission of department chair.

**ENEE 488 Independent Study in Electrical Engineering**  
1-4 crs.  
Independent study topics on advanced electrical and computer engineering issues. Projects typically involve academic investigations of technical themes that are not addressed in other courses. Study plans tailored to the student's educational goals but are approved and supervised by faculty. Project must have substantial research activity. Variable. Prerequisite: Senior standing, permission of instructor and the department chair.

**ENEE 499 Senior Project in Electrical and Computer Engineering**  
1-5 crs.  
Independent research projects on advanced electrical and computer engineering topics. Projects selected by students and faculty and supervised by faculty and other qualified mentors (if applicable). May involve the acquisition of new skills or information. Focus is to conduct an independent investigation of a technical theme leading to a specified project outcome(s). The course must have defined deliverables as a result of the student research. Variable. Prerequisite: Senior standing, permission of instructor and the department chair.

**Mechanical Engineering**

**ENME 232 Thermodynamics**  
3 cr.  

**ENME 271 Numerical Methods in Mechanical Engineering**  
3 cr.  
FSU Course. 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. Two lectures and two hrs. lab per week. Spring. Prerequisites: PHYS 261, MATH 237.

**ENME 272 Introduction to Computer-Aided Design**  
2 cr.  
Fundamentals of CAD, using solid modeling packages (Pro/E, SolidWorks and Autodesk Inventor). Two- and three-dimensional drawing. Dimensioning and specifications. Introduction of CAD-based analysis tools. Students will complete a design project. Prerequisites: ENES 100, Math 237 or equivalent, and permission of the department chair.
ENME 320 Thermodynamics 3 cr.

ENME 331 Fluid Mechanics 3 cr.

ENME 332 Transfer Processes 3 cr.

ENME 350 Electronics and Instrumentation I 3 cr.
FSU Course. 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. Two hrs. lecture and two hrs. lab per week. Fall. Prerequisite: A “C” or better in PHYS 263 or ENEE 204.

ENME 351 Electronics and Instrumentation II 3 cr.
FSU Course. Continuation of ENME 350. Modern instrumentation. Basic circuit design, standard microelectronic circuits. Digital data acquisition and control. Signal conditioning. Instrumentation interfacing. Designing and testing analog circuits. Laboratory experiments. Two hours lecture and two hours lab per week. Spring. Prerequisites: A “C” or better in ENME 350 and PHYS 263.

ENME 361 Vibration, Controls and Optimization I 3 cr.

ENME 371 Product Engineering and Manufacturing 3 cr.

ENME 382 Engineering Materials & Manufacturing Processes 3 cr.
FSU Course. Basic material structures and properties. Mechanical behavior of materials. Manufacturing processes theory. Materials handling. Quality assurance. Laboratory experiments. Two hours lecture and two hours lab per week. Spring. Prerequisite: A “C” or better in ENES 220.

ENME 391 Statistical Methods for Product & Process Development 3 cr.
FSU course. 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. Fall. Prerequisites: MATH 238 and permission of the department. Credit cannot be earned for ENME 391 and 392.

ENME 392 Statistical Methods for Product & Process Development 3 cr.
UMCP Course. 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. Fall. Prerequisite: MATH 238.

ENME 400 Machine Design 3 cr.

ENME 405 Fundamentals of Materials Engineering 4 cr.
Structure of crystalline solids and imperfections in materials. Electrical, thermal, magnetic, and optical properties of materials. Characterization of materials by X-ray diffraction and scanning electron microscopy. Fall. Prerequisite: ENME 382.

ENME 425 Microfabrication 3 cr.
Overview of microfabrication technologies and the science of miniaturization. Microsensors, nanotechnology. Photolithography, dry etching, wet etching, chemical vapor deposition, and physical vapor deposition. Three hrs. integrated lecture and lab. Spring. Prerequisites: Senior standing in physics or engineering or permission of department chair.

ENME 462 Vibration, Controls and Optimization II 3 cr.

ENME 472 Integrated Product and Process Development 3 cr.

ENME 488 Special Problems in Mechanical Engineering 3 cr.
Advanced problems in mechanical engineering with special emphasis on mathematical and experimental methods. Repeatable for maximum of 6 credits if topics are substantially different. Variable. Prerequisite: permission of department.

English

Writing

ENGL 100 Publication Practicum 1-2 cr.
Writing for and editing the campus literary magazine. Open to all students. (1-2 credits per semester: repeatable to 4 credits). Spring.

ENGL 101 Freshman Composition 3 cr.
Addresses the processes of composition and develops intermediate skills in writing essays with an expository or analytical edge. Based on readings for diverse audiences, it prepares students for writing documented essays. Every semester. Students may not withdraw unless withdrawing from the University. Core Skill 1.

ENGL 107 English Praxis 1-3 cr.
Practical application of writing skills and/or literary analysis. Every semester. Departmental approval. Repeatable for a maximum of 3 credits if topics are substantially different.

ENGL 111 Honors: Freshman Composition 3 cr.
Development of intermediate skills in writing based on readings for general audiences. Preparation for honors-level courses. Credit cannot be earned for both ENGL 101 and ENGL 111. Every semester. Prerequisite: enrollment in the Honors Program. Core Skill 1.

ENGL 197 Career Paths in English 1 cr.
Introduction to career paths in English. Explanation of what it means to be an English major or minor at FSU. Discussion of opportunities for involvement within the department, university and community for internships, independent studies, publications, advising, related minors, employment and student organizations. Every fall.

ENGL 215 Grammar for Writing 3 cr.
Systematic study of English grammar, including parts of speech, components of sentences, phrases, clauses, sentence patterns and punctuation. Emphasis on application of grammatical principles to student writing. Variable, but normally offered during intersession and summer sessions only. Does not fulfill Core Skill 1 or 2, although the credits may be used to fulfill the 120 hr. minimum toward graduation. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR THE MAJOR OR MINOR IN ENGLISH.

ENGL 300 Critical Writing About Literature 3 cr.
Introduction to literary theory to develop critical perspectives on literary works and provide flexible writing strategies. Advanced writing about literature. Required of English majors and minors. Readings involve literary analysis and criticism. Every semester.
COURSE DESCRIPTIONS

ENGL 308 Social Sciences Advanced Composition 3 cr.
Development of advanced skills in writing based on reading for social science audiences. Preparation of extended papers; attention to research tools and documentation. Students may receive credit for only one of the following: 308, 309, 310 or 312. Every semester. Prerequisites: C or better in ENGL 101 or 111; and at least 42 credits or permission of Chair. Core Skill 2.

ENGL 309 Advanced Composition: Humanities 3 cr.
A special advanced composition course which fulfills all of the reading and writing requirements of English 308 and 310, but centers research on topics appropriate to the humanities. Development of advanced writing skills. Extensive and research-based papers; attention to research tools and documentation. Students may receive credit for only one of the following: 308, 309, 310 or 312. Every semester. Prerequisites: C or better in ENGL 101 or 111; and at least 42 credits or permission of Chair. Core Skill 2.

ENGL 310 General Advanced Composition 3 cr.
Development of advanced skills in writing. Students may receive credit for only one of the following: ENGL 308, 309, 310 or 312. Every semester. Prerequisites: C or better in ENGL 101 or 111; and at least 42 credits or permission of Chair. Core Skill 2.

ENGL 312 Honors: Advanced Composition 3 cr.
Development of advanced skills in writing. Both reading and writing assignments more challenging than those in other Advanced Composition courses (ENGL 308, 310). Credit cannot be earned for more than one of the following: ENGL 308, 309, 310 or 312. Variable. Prerequisites: C or better in ENGL 101 or 111, at least 42 credits, and enrollment in Honors Program. Core Skill 2.

ENGL 330 Business Writing 3 cr.
Basic writing for business and para-professional occupations. Writing resumes, job applications, memos and reports, and other kinds of business writing. Every semester. Prerequisites: C or better in ENGL 101 or 111; and at least 42 credits or permission of Chair. Core Skill 2.

ENGL 334 Creative Writing: Fiction 3 cr.
Major elements of fiction writing: style, characterization, point of view, structure, pacing, conflict. Class critiques of student work. Every semester. Prerequisite: C or better in ENGL 101 or 111.

ENGL 335 Creative Writing: Poetry 3 cr.
Major elements of poetry: imagery, metaphor, theme, form. Both lyric and narrative poetry. Class critiques of student work. Every semester. Prerequisite: C or better in ENGL 101 or 111.

ENGL 336 Journalistic Writing 3 cr.
Introduction to the journalism industry, including citizen journalism. Effective, responsible, and deadline-driven newsgathering, reporting, and editing. Specialized demands of straight news, feature stories, and the public-relations profession. Every semester. Prerequisite: C or better in ENGL 101 or 111.

ENGL 337 Technical Writing 3 cr.
Principles and practice of writing related to science, industry and government. Effective style, organization and mechanics of writing reports. Every semester. Prerequisites: C or better in ENGL 101 or 111; and at least 42 credits or permission of Chair. Core Skill 2.

ENGL 338 Scientific Writing 3 cr.
Introduction to formats, prose, and style specifications for Natural Science curricula. Focuses on language, research, critical analysis and interdisciplinary impact of scientific discoveries. Variable. Prerequisites: C or better in ENGL 101/111; at least 42 credits or permission from Chair. Core Skill 2.

ENGL 355 Socially Networked Journalism 3 cr.
Gathering, writing, and disseminating news via current social-networking platforms such as Blogger, Facebook, Flickr and Twitter. Introduction to online beat coverage. Logistical and ethical challenges of the 24-hour news cycle. Fall. Prerequisite: C or better in ENGL 101 or 111.

ENGL 360 Creative Nonfiction 3 cr.
Merging of the skills of storytelling and reporting to write personal essays and literary journalism. Fall. Prerequisite: ENGL 334, 335, or 336.

ENGL 402 Editing and Production 3 cr.
Design, layout, and editing techniques for professional publications. Reinforcement of copy editing and proofreading skills. Spring. Prerequisite: ENGL 300, 308, 309, 310, 330 or 338.

ENGL 430 The Composing Processes 3 cr.
A survey of theory and research on the composing processes. Spring. Prerequisite: 6 hrs. of writing courses, including one from the 300 writing series offered by the English department.

ENGL 434 Advanced Fiction Writing 3 cr.
Continued study of fiction writing through advanced individual work on short stories, a novel, or a novella. Within a workshop setting, students will work toward producing publishable-quality fiction and learn how to approach publishers and editors. Fall. Prerequisite: ENGL 334 or permission of instructor.

ENGL 435 Advanced Poetry Writing 3 cr.
Continued study of poetry writing through advanced individual work on lyrical, dramatic, and narrative poems. Within a workshop setting, students will work toward publishable-quality poetry. Spring. Prerequisite: ENGL 335.

ENGL 436 Advanced News and Feature Writing 3 cr.
Skills in gathering and writing news. Techniques of New Journalism and writing for magazines. Spring. Prerequisite: ENGL 336 or permission of instructor.

ENGL 438 Applied Digital Writing 3 cr.
Introduction to writing within various digital genres of the Internet and other multimedia systems; use of multimedia tools in conjunction with writing; analysis of existing media online. Spring. Prerequisite: ENGL 300, 308, 309, 310, 312, 330, 338, 339 or permission of instructor.

ENGL 460 Form and Theory of Fiction and Poetry 3 cr.
In-depth study of the techniques and methods employed by major writers of fiction and poetry, including consideration of structure, language, form, voice, theme, point of view and character. Fall. Prerequisite: ENGL 334 or 335.

ENGL 470 Senior Workshop 3 cr.
An integrated senior-year experience that requires students to use their accumulated skills, knowledge, and creative impulses to complete a final creative writing portfolio of publishable quality. Course includes tutorials, workshops, marketing and submission of original work, and final readings. Spring. Prerequisite: ENGL 434 or 435.

ENGL 491 Practicum in the Teaching of Writing 3 cr.
Supervised opportunity to act as a learning mentor. Study of approaches to teaching writing. Emphasis on practice and experience. Repeatable for up to 12 credit hours. Only 3 hours may be counted towards English major or minor. Every semester. Prerequisites: C or better in one of the following: English 300, 308, 309, 310, 312, 330, 338 or 339; departmental approval.

ENGL 492 Internship Seminar 1 cr.
Academic component of internship. Requires co-registration in 495. Graded A-F. Credit for 492 may be counted toward major. Every semester.

ENGL 494: Field Experience in Writing 1-3 cr.
Requires nine three-weeks per week per credit of practical writing experience in an approved, supervised, professional setting. Every semester. Repeatable for a maximum of 6 credits if experience is substantially different. Three credits required for Journalism minor. Prerequisites: Junior or senior standing and permission of the faculty coordinator.

ENGL 495 Internship in English 6-12 cr.
Experiential component of internship: guided work experience in conjunction with 492; must directly relate to academic program. Full-time intern is register for 12 credits in 495 and 1 credit in 492. Part-time intern register for 6 credits in 495 and 1 credit in 492. English 495 is graded P/F. Every semester. Prerequisites: junior or senior status, in good academic standing; submission of Internship Agreement form to internship director prior to registering; major or minor in English, or minor in Public Relations, Journalism or Film Studies.
LITERATURE AND LANGUAGE

ENGL 150 Introduction to Literature 3 cr.
A thematic study of literature, looking across genres and cultures at contemporary topics. Continued development of writing skills. Every semester. GEP Group B.

ENGL 207 Introduction to Film Studies 3 cr.
A cross-cultural examination of film with a focus on developing critical skills and formal approaches to cinematic analysis through such concepts as genre, cinematography, camera movement and sound. Weekly film viewing. Fall. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 208 Film and American Culture 3 cr.
Critical investigation of popular American movies, emphasizing the role films have historically played in projecting, reflecting and challenging cultural values and beliefs. Weekly film screening. Spring, even-numbered years. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 221 Intro. to Literature/Intermediate Composition 3 cr.
Critical reading of expository prose and significant poetry, drama, and fiction from a variety of cultures and eras, with emphasis on developing intermediate writing skills. Preparation of short papers and essay exams. Graded A-F. A passing grade (D or better) satisfies the GEP Group B requirement for ENGL 150. Students meeting the competencies of freshman composition purchase three credits for ENGL 101. Students in 221 may thus fulfill both the core skill (ENGL 101, when the credits are purchased) and the GEP Group B requirement of ENGL 150, or they may fulfill only one, or neither. Every semester. Open only to students never enrolled in ENGL 101 or ENGL 111. Students may not withdraw unless withdrawing from the University. Core Skill 1 and/or GEP Group B.

ENGL 231 African American Literature 3 cr.
Critical examination of major African American writings. Spring, even-numbered years. Prerequisite: C or better in ENGL 101 or 111 or equivalent. GEP Group F.

ENGL 250 Honors: Comparative Literature 3 cr.
Literature generated by the cross-cultural interface of Western countries with those third-world areas that have reclaimed their national identities since World War II. Credit cannot be earned for both ENGL 150 and ENGL 250. Variable. Prerequisite: acceptance into the Honors Program or permission of instructor. GEP Group B.

ENGL 260 British Literature: Beowulf to Present 3 cr.
A survey of British literature from Beowulf to the present. Includes major works from each period to provide historical perspective. Designed for English majors and minors. Every semester. Prerequisite: C or better in ENGL 101 or 111.

ENGL 261 American Literature: Colonial to Present 3 cr.
A survey of American literature from colonial times to the present. Includes works from each period to provide historical perspective. Designed for English majors and minors. Every semester. Prerequisite: C or better in ENGL 101 or 111.

ENGL 270 European & Neo-European Literature 3 cr.
Works, in translation, important to European and Neo-European cultures, such as selections from the Old Testament, the literature of ancient Greece and Rome, Italian, French, Spanish, German, Russian, etc., literatures. Fall. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 271 Asian & African Literature 3 cr.
Including works, in translation, from Asian and African cultures, such as the major works of the Middle East, India, the African nations, China, and Japan. Spring. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 276 Adolescent Literature 3 cr.
Definition, classification, and analysis of adolescent literature and its value. Contemporary and classical works appropriate for or written especially for adolescents. Spring. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 280 Mythology and Literature 3 cr.
Greco-Roman literature, American Indian legends, and myths from diverse cultures examined in a literary and socio-cultural context. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 281 Literature Into Film 3 cr.
Critical examination of how literary works are translated into film, analyzing the means by which the director and others (actors, cinematographers, editors) interpret the literary work being adapted. Weekly film viewing. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 282 Shakespeare on Film 3 cr.
A critical examination of Shakespeare’s plays on film, considering the films as interpretations and adaptations. The emphasis will be both literary - how do the films interpret and revise Shakespeare’s drama - and cultural - what do these films reveal about the culture that produced them. Weekly film viewing. Fall, odd-numbered years. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 290 Topics in Language and Literature 3 cr.
A selected aspect of language or literature. May be taken more than once for credit if subtitle is different. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. English 101 or 111 must be taken concurrently with or prior to ENGL 290.

ENGL 306 Introduction to English Linguistics 3 cr.
A study of the grammars and grammatical aspects of English as well as of language use in society, language change, and language acquisition and processing. Every semester. Prerequisite: C or better in ENGL 101 or 111.

ENGL 340 Shakespeare 3 cr.
A selection from the histories, comedies, major tragedies, and problem plays or romances. Every semester. Prerequisite: C or better in ENGL 101 or 111.

ENGL 344 Film Genre 3 cr.
An extended examination of a single film genre, focusing on the narrative frameworks, conventions and themes particular to that genre. Three hours discussion with a weekly film viewing. Fall, even-numbered years. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 371 Literature of the Middle Ages 3 cr.
Literature of the Anglo-Saxon and Medieval periods. Credit cannot be earned for both ENGL 371 and ENGL 411. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 372 Early Modern Literature 3 cr.
Literature from the Early Modern Period or Renaissance (16th-17th centuries). Focus on British writers with attention to the literature of the discovery of the New World. Credit cannot be earned for both ENGL 372 and ENGL 307. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 373 Literature of the Enlightenment 3 cr.
Literature of 1650-1750 in Great Britain and America that represents movements toward philosophic, spiritual, scientific, social, and personal enlightenment. Credit cannot be earned for both ENGL 373 and either ENGL 322 or ENGL 352. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 374 Literature of the Age of Revolution 3 cr.
Literature of the mid and late eighteenth century on both sides of the Atlantic. Credit cannot be earned for both ENGL 374 and either ENGL 332 or ENGL 352. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 375 Romanticism 3 cr.
Literature of Romantic movement in the 19th century, with attention to major themes of Romantic and Transcendental writers, on both sides of the Atlantic. Credit cannot be earned for both ENGL 375 and either ENGL 303 or ENGL 313. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 376 Realism and Naturalism 3 cr.
Literature of the later 19th century from both sides of the Atlantic. Credit cannot be earned for both ENGL 376 and either ENGL 323 or ENGL 407. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.
ENGL 377 Modernism  3 cr.
Literature from the turn of the twentieth century to WWII from both sides of the Atlantic. Credit cannot be earned for both ENGL 377 and either ENGL 407, ENGL 404, or ENGL 426. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 378 Postmodernism  3 cr.
Literature written after WWII from both sides of the Atlantic. Credit cannot be earned for both ENGL 378 and either ENGL 408, ENGL 424, or ENGL 426. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 379 Postcolonial Literature  3 cr.
Literatures of former British and other European colonies from the second half of the twentieth century through the present, with emphasis on issues such as colonialism, nationalism, and modernity. Variable. Prerequisite: C or better in ENGL 101 or 111 or equivalent.

ENGL 416 History of the English Language  3 cr.
From the beginning to contemporary usage; changes in sounds, grammatical and spelling forms, syntax, and vocabulary. Spring. Prerequisite: C or better in ENGL 101 or 111.

ENGL 418 Second Language Acquisition: Theory & App.  3 cr.
Introduction to theories of how children and adults learn second languages, with application to conducting research or to teaching/tutoring children and adults who are second language learners (principally English as a second language). Fall, even-numbered years.

ENGL 421 Jane Austen in Literature and Film  3 cr.
Examination of the five major novels of Jane Austen in literature and in film versions. Variable. Prerequisite: C or better in ENGL 101/111.

ENGL 431 World Drama I: Premodern  3 cr.
World drama from the 5th Century B.C. Greeks to the late 19th century. Representative dramatists and forms from both the West and the East. Multicultural emphasis on the use and development of drama. Fall, even-numbered years. Prerequisite: C or better in ENGL 101 or 111; ENGL 150/250 or THEA 106 or permission of instructor. Also offered as THEA 431.

ENGL 432 World Drama II: 20th Century  3 cr.
World drama during the 20th century. Representative dramatists and forms from both the West and East. Multicultural emphasis on the variety of dramatic forms. Variable. Prerequisites: C or better in ENGL 101 or 111; ENGL 150/250 or THEA 106 or permission of instructor. Also offered as THEA 432.

ENGL 440 Literature of the Environment  3 cr.
Critical, multi-cultural and historical study of literature of the environment, emphasizing the variety of attitudes toward the land in essays and poetry. Variable. Prerequisite: C or better in ENGL 101 or 111.

ENGL 450 Women and Literature  3 cr.
A cross-cultural study of womanhood as portrayed by male and female writers over the centuries. Fall, even-numbered years. Prerequisite: C or better in ENGL 101 or 111.

ENGL 471 Seminar in Critical Theory  3 cr.
Study of literary critical theory and application to an independent student project. Required of English majors in the literature concentration. Fall. Prerequisites: C or better in ENGL 101 or 111; senior status.

ENGL 480 Senior Seminar in English  3 cr.
Integration of previous course material and student’s own experience in the discipline for a critical analysis of a topic in literature. Topics will vary. Senior thesis required. Variable. Prerequisite: C or better in ENGL 101 or 111.

ENGL 489 English Capstone  1 cr.
Conversion of students’ working portfolios, accumulated during their careers as English majors, into “best works” collections for professional application and departmental assessment purposes. Other assessment activities possible. Every semester. Prerequisite: senior status.

ENGL 490 Selected Topics in English  3 cr.
A select aspect or body of literature of limited scope and topical interest. Subject varies; see Academic Schedule for specific titles. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. Seniors only. Prerequisite: C or better in ENGL 101 or 111.

ENGL 499 Independent Study  1-3 cr.
Guided reading and/or writing projects. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. Prerequisites: permission of the department chair and a faculty director, normally given only to majors of junior or senior standing with at least a B average in the major.

Reading Improvement and Development

ENGL 105 Critical Reading  3 cr.
The reading process: development of literal comprehension and critical analysis in various content areas. Fall. Students required to enroll in this course based upon results of the reading placement test administered by the University may not withdraw unless withdrawing from the University.

Finance

You cannot receive credit for both a FINA course and the same course formerly labeled BUAD.

FINA 301 Introduction to Personal Financial Planning  3 cr.
Overview of elements in the personal financial planning process: goal identification and budgeting, tax management, insurance planning and risk management, investments planning, retirement income and benefits, and issues in estate planning. Fall.

FINA 303 Principles of Finance  3 cr.
Introduction to basic principles of the three traditional divisions of finance: financial markets and institutions, investment and portfolio analysis, and corporate finance. Does not count for accounting majors. Spring. Prerequisites: core skill requirement in mathematics, ACCT 211 and ECON 200 or ECON 201/211.

FINA 370 Corporate Finance  3 cr.
Principles of financial management within business enterprises. Basics of financial analysis, stocks and bonds valuation, capital budgeting, capital structure decisions, dividend policy, and working capital management. Every semester. Prerequisites: MATH 118 or MATH 220, ACCT 211, ECON 201/211 and ECON 202/212. Prerequisite or corequisite: ACCT 212.

FINA 371 Insurance Planning and Risk Management  3 cr.
The nature of risk and its effect on the business enterprise. Various types of insurance, underwriting practices, actuarial and contractual problems, and government regulations. Spring.

FINA 375 Financial Institutions Management  3 cr.
Concepts of financial intermediation, characteristics of institutions within the financial services industry, regulation, and financial innovation. Management of liquidity, credit, interest rate, and other risks in a global economic environment. Fall. Prerequisite: FINA 370.

FINA 377 Retirement Income Planning  3 cr.
Retirement income savings planning. Characteristics of various pension plans. Management of defined contribution plans and defined benefit plans, investment of pension assets and performance evaluation of pension funds. Fall. Prerequisites: ACCT 312 or FINA 301 or 303 or 370.

FINA 381 Principles of Real Estate  3 cr.
Industry principles and factors influencing the real estate business. Contracts, deeds, valuation, financing, and government regulation. Fall.

FINA 405 Short-term Financial Management  3 cr.
Traditional analytical techniques and new approaches to liquidity management. Working capital accounts (cash, receivable, inventory and accounts payable management) and topics such as bank relations, off balance sheet financing, variance analysis models, improved liquidity indicators, and hedging techniques. Variable. Prerequisite: FINA 370 or FINA 476.
FINA 420 Entrepreneurial Finance
Introduction to financial issues relevant to small and emerging businesses, with special emphasis on sourcing capital. Analysis of the financial needs of new business ventures, profit management and cash flow analysis, entrepreneurial capital budgeting, accessing government sources of financing, working capital management, long-term financial policy, as well as external expansion through mergers and acquisitions. Spring. Prerequisite: FINA 370.

FINA 451 Estate Planning & Advanced Topics in Financial Planning 3 cr.
Study and application of the legal, tax, and human factors surrounding the efficient transfer of property including property ownership, probate, wills, intestacy, trusts, federal estate and gift taxation, contemporary techniques in individual estate planning, industry regulation and ethical practices for the estate planner. Synthesis of the financial planning process and discussion of advanced topics in financial planning. Variable. Prerequisites: Two from FINA 371, FINA 377, FINA 475 and ACCT 420.

FINA 475 Securities Investment 3 cr.

FINA 476 Financial Management 3 cr.
Financial planning and performance evaluation in the business enterprise; obtaining and investing funds. Case-study approach to financial decision-making: basic financial analysis, working capital management, capital budgeting, long-term financing, leasing, mergers, acquisitions, and bankruptcy. Not open to students who have credit for the former BUAD 376. Every semester. Prerequisites: FINA 370 or ACCT 312.

FINA 477 International Financial Management 3 cr.
Analysis of financial management in a multinational enterprise. Multinational working capital management, management of foreign exchange risks, translation and transaction exposure, participation in global financial markets, multinational capital budgeting, and political risks. You cannot receive credit for both FINA 477 and FINA 470. Fall. Prerequisite: FINA 370 or ACCT 312.

FINA 479 Financial Policy 3 cr.
Advanced topics in corporate financial policy. Extensive case study and readings-based approaches to developing and implementing financial policy. Short-term financial planning, advanced capital budgeting, valuation of the firm, long-term strategic financial planning and issues of corporate restructuring. Spring. Prerequisites: FINA 370 and one from FINA 375 or FINA 475 or FINA 476. Finance Capstone.

FINA 490 Special Topics in Business Administration - Finance 3 cr.
A detailed study of a limited topic, problem, or period. Topics vary from semester to semester. Fall. Prerequisites: 90 credits and 18 hrs. of business administration course work.

FINA 494 Internship in Finance 3 or 6 cr.
Guided work experience in finance with business, nonprofit, or government organizations. Minimum of 135 clock hours of experience for 3 credits or 270 for 6 credit hours. Academic components include but not limited to one internship paper for 3 credits or two internship papers for 6 credit hours, internship log, and site supervisor’s evaluation of the student’s performance. Previous experiences are not acceptable for credit. Maximum of 6 credit hours. A 6 credit Internship choice counts as one elective course. Repeatable for maximum of 6 credits. Every semester. Prerequisites: junior or senior standing; department chair’s approval.

FINA 499 Independent Study in Finance 1 - 3 cr.
Research and report on a specific topic not covered by regularly rostered courses. Topic will be defined by the student in conjunction with faculty sponsor. Proposals must be approved prior to registration. You cannot receive credit for both a BMIS course and the same course formerly labeled BUAD. Repeatable for maximum of 4 credits. Every semester. Prerequisites: 18 credits of business administration course work, 90 credits and permission of department chair.

Foreign Languages & Literature

Intercultural Studies

MDFL 111 Intercultural Understanding 3 cr.
The study of the concept of Culture as well as its multiple manifestations and the case study of three diverse peoples. Team taught. Variable. GEP Group F.

Special Topics

MDFL 190 Selected Topics in Foreign Lang. and Literature 3 cr.
A variable topic in a foreign language, literature, or culture other than French or Spanish such as Italian, Japanese, German, Arabic or Chinese. Specific title listed in course schedule. Repeatable for a maximum of 15 credits if topics are substantially different. Variable.

MDFL 290 Selected Topics in Foreign Language & Literature 1-4 cr.
A variable topic in a foreign language, literature, or culture other than French or Spanish such as Italian, Japanese, German, Arabic or Chinese more advanced than MDFL 190. Specific title listed in course schedule. Repeatable for a maximum of 15 credits if topics are substantially different. Variable.

MDFL 390 Selected Topics in Foreign Language & Literature 1-4 cr.
A variable topic on language, literature or culture. Specific title listed on course schedule. Repeatable for a maximum of 15 credits if topics are substantially different. Variable. Prerequisite: permission of department.

Literature in Translation

MDFL 211 Introduction to World Literature I 3 cr.
Literary masterpieces in translation, illustrating spiritual, social, and esthetic life from ancient times through the Renaissance. Guest lectures in various literatures. Variable. Prerequisite: ENGL 101 or 111.

MDFL 212 Introduction to World Literature II 3 cr.
Literary masterpieces in translation from the 17th to the present. Guest lectures in various literatures. Variable. Prerequisite: ENGL 101 or 111.

MDFL 301 Latin American Women’s Issues 3 cr.
Study of the history and realities of Latin American women from the colonial period through contemporary Latin America. Variable. GEP Group F.

MDFL 407 Latin American and Spanish Film 3 cr.
A study principally of the most recent films from Latin America and Spain. Taught in English (may not be taken to satisfy the Spanish major). Not open to students with credit for SPAN 407. Two hrs. lecture and two hrs. lab. Variable.

MDFL 417 World Film 3 cr.
A study of the principal films from around the world. The course is organized geographically and chronologically. Variable. Prerequisite: junior or senior standing or permission of the instructor.

Linguistics

LING 301 Introduction to Language 3 cr.
Introduction to the study of language. The nature of language; language families; techniques of linguistic analysis; linguistic change. Conducted in English. Variable.

French

FREN 101 Basic Elements of French I 3 cr.
Fundamental skills: listening, speaking, reading, writing. Emphasis on active performance. Language laboratory. Not for students with high school or college French except by special placement. Fall.
FREN 102 Basic Elements of French II 3 cr.

FREN 211 French Grammar, Composition, and Conversation I 3 cr.
Intensive grammar, oral command of the language, introduction to expository writing. Language laboratory. For students with two or more years of high school French, or FREN 102. Fall.

FREN 212 French Grammar, Composition & Conversation II 3 cr.
Sequel to FREN 211. Spring.

FREN 250 Overview of French Language and Culture 3 cr.
Survey of French language through study of major aspects of French and Francophone cultures. Serves as a gateway to advanced study in French. May be taken concurrently with a 300-level course. Fall. Prerequisite: FREN 212 or equivalent. GEP Group B.

FREN 330 Advanced Conversation 3 cr.
Emphasis on development and strengthening of oral-aural skills. Listening and speaking activities, simulation and role playing, phonetics and pronunciation practice. Extensive use of authentic audio and video materials, both recorded and live. Not open to students who have received credit for former FREN 311. Fall. Prerequisite or corequisite: FREN 250 or equivalent.

FREN 331 Advanced Composition 3 cr.
Emphasis on advanced grammar and reading and writing skills. Reading of authentic newspaper and magazine articles and current and relevant materials in the social sciences and other content areas. Not open to students who have received credit for former FREN 312. Spring. Prerequisite or corequisite: FREN 250 or equivalent.

FREN 332 French for the Professions 3 cr.
Vocabulary, reading, writing, and speaking for contact with the French professional world. Use of role-plays, authentic French business materials, analysis of French professional sectors, culture, and etiquette. Spring. Prerequisite or corequisite: FREN 250 or equivalent.

FREN 335 Intro. to French Literary Texts 3 cr.
Introduction to the current methodologies of literary analysis through the chronological study of selected writers and works from the Medieval period to the modern era. Not open to students who have received credit for former FREN 315. Variable. Prerequisite or corequisite: FREN 250 or equivalent.

FREN 336 French Civilization Through Film and Literature 3 cr.
Broad survey of French history from the Renaissance to present day through analysis of French and Francophone film tradition, focusing on a specific, enduring theme of Francophone culture, and incorporating major literary works. Emphasis on aural/oral skills with some supplementary reading in French. Every other fall beginning 2006. Prerequisite or corequisite: FREN 250 or permission of instructor.

FREN 401 French Poetry and Drama 3 cr.
Masterpieces of French poetry and drama in esthetic and cultural context. Every other spring beginning Spring 2007. Prerequisite: FREN 250 or equivalent.

FREN 411 French Fiction, Non-Fiction and Film 3 cr.
Masterpieces of French fiction, non-fiction and film in esthetic and cultural context. Every other spring beginning Spring 2006. Prerequisite: FREN 250 or equivalent.

FREN 430 Individual and Society in Francophone World 3 cr.
Analysis of a problem or theme of French individual and social identity within the French social science and philosophical traditions. Every other fall beginning Fall 2006. Prerequisite: FREN 250.

FREN 431 Translation 3 cr.
Theory and practice of oral interpretation and written translation from French to English, using real-life examples from social sciences, commerce, natural sciences, media, and the law. Every other fall beginning Fall 2005. Prerequisite FREN 250 or permission of instructor.

FREN 490 Special Topics in French Language and Literature 3 cr.
A selected topic such as an author or work, a genre or theme, translation or interpreting. Repeatable for a maximum of 9 credits if topics are substantially different. Variable. Prerequisite: FREN 250 or equivalent.

FREN 493 Senior Seminar in French Literature 3 cr.
Capstone in French literature incorporating dossier of written work, oral presentation, extended reading and critical analysis of French literary text or director of multiple films. Prerequisite: 90 credits or permission of department chair.

FREN 495 Internship in French 6-12 cr.
Guided work experience in a French speaking organization either in the US or abroad. Graded P/F. The credit is not applicable toward the major. Every semester and summer. Prerequisites: junior or senior status, major or minor in French, and permission of department.

FREN 496 Senior Seminar in French Professional Studies 3 cr.
Capstone in French Professional Studies incorporating dossier of written work, oral presentation, and internship or research project. Prerequisite: 90 credits or permission of department chair.

FREN 498 Readings in French 1 to 4 cr.
Intensive readings and a term paper. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. Prerequisite: FREN 250 or equivalent.

FREN 499 Individual Problems in the French Language 1 to 4 cr.
Individual research or activity requiring submission of a final paper or completed project. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. Prerequisite: FREN 250 or equivalent.

Spanish

SPAN 101 Basic Elements of Spanish I 3 cr.
Fundamental skills: listening, speaking, reading, writing. Emphasis on active performance. Language laboratory. Not for students with high school or college Spanish except by special placement. Every semester.

SPAN 102 Basic Elements of Spanish II 3 cr.

SPAN 211 Spanish Grammar, Composition, & Conversation I 3 cr.
Survey of Spanish language through study of major aspects of Spanish and Latin American cultures. Serves as a gateway to advanced study in Spanish. May be taken concurrently with a 300-level course. Every semester. Prerequisite: SPAN 212 or equivalent. GEP Group B.

SPAN 212 Spanish Grammar, Composition, & Conversation II 3 cr.
Sequel to SPAN 211. Variable.

SPAN 250 Overview of Spanish Language & Culture 3 cr.
Survey of Spanish language through study of major aspects of Spanish and Latin American cultures. Serves as a gateway to advanced study in Spanish. May be taken concurrently with a 300-level course. Every semester. Prerequisite: SPAN 212 or equivalent. GEP Group B.

SPAN 330 Spanish for Practical Communication I 3 cr.
Emphasis on development and strengthening of oral-aural skills. Listening and speaking activities, simulation and role playing, phonetics and pronunciation practice. Extensive use of authentic audio and video materials, both recorded and live. Not open to students who have received credit for former SPAN 311. Variable. Prerequisite or corequisite: SPAN 250 or equivalent.

SPAN 331 Spanish for Practical Communication II 3 cr.
Development of fundamental writing skills through review of specific grammatical topics and analysis of significant reading selections. Conducted entirely in Spanish. Not open to students who have received credit for SPAN 312. Variable. Prerequisite or corequisite: SPAN 250 or equivalent.
SPAN 333 Introduction to Culture and Civilization of Spain 3 cr.
Spanish culture: political, literary, economic, social, and artistic life in Spain. Not open to students who have received credit for former SPAN 313. Variable. Prerequisite or corequisite: SPAN 250 or equivalent.

SPAN 334 Introduction to Culture & Civilization of Latin America 3 cr.
Latin American culture: political, literary, economic, social, and artistic life in Latin America. Not open to students who have received credit for former SPAN 314. Variable. Prerequisite or corequisite: SPAN 250 or equivalent.

SPAN 335 Introduction to Study of Spanish Literature 3 cr.
Esthetics of Spanish poetry, fiction, and drama. Not open to students who have received credit for former SPAN 315. Variable. Prerequisite or corequisite: SPAN 250 or equivalent.

SPAN 350 Spanish Phonetics and Pronunciation 3 cr.
Introduction to Spanish phonetics with the objective of improving pronunciation and intonation in Spanish. Students will learn terminology for classifying Spanish sounds as well as basic phonetic transcription with an introduction to the International Phonetic Alphabet (IPA). Variable. Prerequisite or corequisite: SPAN 250 or equivalent.

SPAN 401 Literature of Spain I 3 cr.
Survey of literature of Spain from the Middle Ages through the seventeenth century. Representative figures and major literary developments. Variable. Prerequisites: SPAN 250 and two 300-level Spanish courses.

SPAN 402 Literature of Spain II 3 cr.
Survey of literature in Spain from the eighteenth century to the present. Representative figures and major literary developments. Variable. Prerequisites: SPAN 250 and two 300-level Spanish courses.

SPAN 403 Spanish American Literature I 3 cr.
Survey of literature in Latin America from the Pre-Hispanic period through the early twentieth century. Representative figures and major literary developments. Variable. Prerequisites: SPAN 250 and two 300-level Spanish courses.

SPAN 404 Spanish American Literature II 3 cr.
Survey of literature in Latin America from the early twentieth century to the present. Representative figures and major literary developments. Variable. Prerequisites: SPAN 250 and two 300-level Spanish courses.

SPAN 407 Latin American and Spanish Film 3 cr.
A study principally of the most recent films from Latin America and Spain. 2 hours lecture and 2 hours lab. Not open to students with credit for MDFL 407. Variable. Prerequisites: Two 300-level Spanish courses.

SPAN 408 Comparative Grammar and Translation 3 cr.
Comparative study of English and Spanish grammar and lexicon and basic Spanish-to- English translation. Prerequisite for SPAN 436 Spanish–English Translation. Variable. Prerequisites: Two 300-level Spanish courses or permission of instructor.

SPAN 425 Latinos in the USA 3 cr.
Identification, study, analysis, and consideration of the different origins, circumstances of living, problems and achievements of Latino communities in the United States. Variable. Prerequisites: Two 300-level Spanish courses or permission of the instructor.

SPAN 432 Spanish for the Professions II 3 cr.
Strategies to effectively read and write specialized documents for a variety of professions, taking into account the Spanish or Spanish-American cultural context. Conducted entirely in Spanish. Variable. Prerequisite or co-requisite: SPAN 250.

SPAN 433 Literature of Women Writers 3 cr.
Critical survey of the work of women writers from the Spanish-speaking world including some writers from the U.S.A. who write in Spanish. The survey includes ample range of writing from poetry to movie scripts. Variable. Prerequisites: Two 300-level Spanish courses or permission of instructor.

SPAN 436 Spanish–English Translation 3 cr.
Introduction to translation theory and method, with a specific focus on Spanish to English translation. Students will practice these theories and methods through both in-class and out-of-class translation assignments. Variable. Prerequisite: SPAN 408.

SPAN 489 Capstone in Spanish 3 cr.
Capstone experience in Spanish language and cultures, incorporating an oral presentation, dossier of written work, faculty assessment of language and cultural proficiency, and articulation of goals for the use of the language and culture in professional setting. Every semester. Prerequisite: 90 credits or permission of department chair.

SPAN 490 Special Topics in Spanish Language & Literature 3 cr.
A selected topic such as an author or work, a genre or theme, translation or interpreting. Repeatable for a maximum of 9 credits if topics are substantially different. Variable. Prerequisites: two 300-level Spanish courses and permission of instructor.

SPAN 495 Internship in Spanish 6-12 cr.
Guided work experience in a Spanish speaking organization either in the US or abroad. Graded P/F. The credit is not applicable toward the major. Every semester and summer. Prerequisites: junior or senior status, major or minor in Spanish, and permission of department.

SPAN 498 Readings in Spanish 1 to 4 cr.
Intensive readings and a term paper. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. Prerequisites: three 400-level Spanish courses and permission of instructor.

SPAN 499 Individual Problems in Spanish Language 1 to 4 cr.
Individual research or activity requiring submission of a final paper or completed project. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. Prerequisite: three 300-level Spanish courses and permission of instructor.

Geography

GEOG 103 Physical Geography 4 cr.
Earth-sun relations, map reading and interpretations, landforms, elements of weather and climate, and climate regions. Three hrs. lecture and 2 hrs. lab. Every semester. GEP Group C.

GEOG 104 Human Geography 3 cr.
Systematic consideration of factors influencing the distribution of human beings in relation to population dynamics and migration, economic development and urbanization, and cultural diversity. Every semester. GEP Groups D or F.

GEOG 110 World Regional Geography: Cultural Diversity 3 cr.
Earth's natural and cultural diversity, their interconnections and their dynamic processes examined in each major world region. Variable. GEP Group D or F.

GEOG 113 Honors: Physical Geography 4 cr.
Earth-sun relations, map reading interpretation, landforms, elements of weather and climate, and climate regions. Three hrs. lecture, 2 hrs. lab, and four Saturday field trips. Variable. Credit cannot be earned for both GEOG 103 and GEOG 113. Prerequisite: acceptance into the Honors Program or permission of instructor. GEP Group C.

GEOG 114 Honors: Human Geography 3 cr.
Systematic consideration of factors influencing the distribution of human beings in relation to population dynamics and migration, economic development and urbanization, and cultural diversity. Credit cannot be earned for both GEOG 104 and GEOG 114. Spring. Prerequisite: acceptance into the Honors Program or permission of instructor. GEP Group D or F.

GEOG 150 Earth, Wind and Fire: An Environmental Science Approach to Natural Hazards and Disasters 3 cr.
Survey of the environmental science of natural hazards and disasters, including floods, hurricanes, volcanoes, earthquakes, landslides and global climate change. Discussion of impacts to society caused by hazards and disasters, and human activities increasing hazards and disasters. Consideration of the risk of disasters and hazards. Variable.

GEOG 205 Descriptive Meteorology 3 cr.
Aspects of the atmosphere, weather variables and measurement, radiation, clouds and precipitation, atmospheric stability, air masses and severe weather. Principles of weather forecasting. Also offered as PHSC 205. Spring. GEOG 103 recommended.
### GEOG 207 Physical Geology and Geomorphology (4 cr.)
A process oriented approach to develop a fundamental understanding of geology and geomorphology. Experimental laboratory and field experiences of subsurface and surficial interactions with tectonic, hydrologic and atmospheric processes. At least one field trip will be required. Three hrs. lecture and 2 hrs. lab. Not open to students who have credit for former GEOG 307. Spring. Prerequisite: GEOG 103/113 or permission of instructor.

### GEOG 208 Earth System History (4 cr.)
Chronology of the Earth's history from hypothesized origins through the Holocene. Paleography, paleoecotectonics, and floral and faunal evolution. Lab study of sediments, fossils as indicators of rock age and environment, and geologic maps and structure sections. One field trip may be required. Three hrs. lecture and 2 hrs. lab. Not open to students who have credit for former GEOG 308. Fall. Prerequisite: GEOG 103 (or 113) or permission of instructor.

### GEOG 209 People, Places and Landscapes of Appalachia (3 cr.)
Physical, historical and human processes that have influenced and shaped the spatial distributions of Appalachia. Fall. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 222 Introduction to Cities (3 cr.)
Study of the forces that shape contemporary cities. Discussion of efforts to improve the social and physical environments of cities. Fall. Prerequisite: GEOG 104/114 or GEOG 110.

### GEOG 275 Fundamentals of Geographic Data Handling (3 cr.)
Exploring sources, characteristics and types of geospatial data. Discussion of techniques for manual and automated handling of geographically referenced information. Two hrs. lecture and 2 hrs. lab. Every semester. Prerequisites or co-requisites: GEOG 103 (or 113) and MATH 109/209, or permission of instructor. Tech. Fluency.

### GEOG 300 Economic Geography (3 cr.)
The distribution of world economic activities. Agriculture, mining, the manufacturing industries, trade and transportation. Fall. Prerequisite: GEOG 104/114 or GEOG 110 or sophomore standing.

### GEOG 301 Geography of North America (3 cr.)
Major national and geographic regions of the United States, Canada and Mexico. Relationship between natural and economic factors. Fall, odd-numbered years. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 302 Geography of Maryland (3 cr.)
A geographic analysis of the state. Spring. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 310 Fundamentals of Cartography (3 cr.)
The art and science of compiling and producing thematic maps as a medium for communication and research. Emphasis is on map design, symbolization and data classification through desktop mapping and map animation software applications. Two hrs. lecture and 2 hrs. lab. Every semester. Prerequisites: GEOG 103 (or 113) or GEOG 104 (or 114), or GEOG 110 or permission of instructor.

### GEOG 317 Principles of Geographic Information Science (3 cr.)
An examination of the basic theory, concepts, data structures, operations and applications of geographic information systems (GIS) as a science. Lectures supplemented by computer-based laboratory exercises. Two hrs. lecture and 2 hrs. lab. Fall. Prerequisites: GEOG 275 and GEOG 380 or completion of one additional MATH course or a Level II Math class or DVMT 100 or proficiency at Level III on the Math placement test, or permission of instructor. GEOG 310 recommended.

### GEOG 320 Geography of Latin America (3 cr.)
Physical and human processes that explain the spatial patterns and landscapes of Latin America. Spring, even-numbered years. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 324 Urban Geography (3 cr.)
Introduction to land use and planning issues facing North American metropolitan areas. Discussion of historic growth patterns, housing trends and urban problems. Spring. Prerequisite: GEOG 104/114 or GEOG 110 or sophomore standing.

### GEOG 335 Oceanography (3 cr.)
Basic principles of oceanographic science and discussion of the role of oceans in global environmental systems. Fall, even-numbered years. Also offered as SCIE 335. Prerequisites: GEOG 103 (or 113), BIOL 149 and completion of a college-level mathematics course.

### GEOG 340 Soil: Genesis, Nature and Characterization (3 cr.)
Origin and processes of soil formation, change with time and environmental factors including use, identification and delineation on the landscape, and interpretation and usage of soil surveys. Two hrs. lecture and 2 hrs. lab./field session. Not open to students who have credit for former GEOG 440. Fall. Prerequisite: GEOG 103/113 or permission of instructor. GEOG 207 completion or co-registration strongly recommended.

### GEOG 360 Food Systems (3 cr.)
Geographic examination of the production, distribution and consumption of food. Cultural and spatial foundations of the global food system and its impacts on human and natural systems. Sustainable food systems. Fall, odd-numbered years. Prerequisite: GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 380 Research Methods in Geography (3 cr.)
Examines qualitative and quantitative methods for handling geo-spatial data. Design of geographic research, approaches to data collection and synthesis, inferential and descriptive geo-spatial statistics, and presentation of findings. Spring. Prerequisites: GEOG 275 and 9 hrs. of geography or permission of instructor.

### GEOG 400 Geography of Asia (3 cr.)
Cultural, economic and physical transformation of East, South and Southeast Asia. Variable. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110.

### GEOG 401 Geography of Europe (3 cr.)
Physical, historical and cultural features that have shaped the current landscapes of Europe. Three hrs. lecture. Spring, odd-numbered years. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 402 Geography of Northern Eurasia (3 cr.)
Physical and human processes that explain the spatial patterns and landscapes of Russia, Ukraine, Mongolia and adjacent states. Variable. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 403 Geography of Sub-Sahara Africa (3 cr.)
Cultural, economic, physical and political potentials of Sub-Sahara Africa. Complex spatial patterns that define the Sub-Saharan African landscape. Fall, even-numbered years. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 404 Geography of the Middle East and Central Asia (3 cr.)
Physical and human systems that have shaped the current landscapes and societies of North Africa, the Middle East, the Islamic republics of the former Soviet Union and Afghanistan. Spring, even-numbered years. Prerequisite: GEOG 103/113 or GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 405 Physical Climatology (3 cr.)
Overview of the physical processes that define Earth's global climate. Movement of energy and water throughout the climate system, global circulation, distribution of climate types, natural and anthropogenic controls of climate, land-atmosphere interactions, spatial and temporal patterns, climate variability and change, and analysis of climate data. Two hrs. lecture and 2 hrs. lab. Fall. Prerequisite: GEOG 103/113. GEOG 205/PHSC 205 and MATH 220/ MATH 226 recommended.

### GEOG 406 Management & Conservation of Nat. Resources (3 cr.)
Current problems associated with the use and misuse of natural resources. Fall. Prerequisites: GEOG 103/113 and GEOG 104/114 or GEOG 110 or permission of instructor.

### GEOG 407 Political Geography (3 cr.)
Geographic factors affecting national identity and the present development of countries. Consideration of the spatial organization of political units at the international and domestic scale. Fall. Prerequisite: GEOG 104/114 or GEOG 110 or junior standing.

### GEOG 410 Locational Analysis (3 cr.)
Theories and methods of analyzing and explaining the spatial location of economic activities. Emphasis on theoretical, methodological and practical issues. The relationship between consumer behavior and the location of industrial and service facilities is examined. Spring, even-numbered years. Prerequisite: GEOG 104/114 or GEOG 110 or junior standing.
COURSES

**GEOG 413 Remote Sensing — Image Interpretation**  
Fundamental principles of remote sensing and image interpretation applications in geography; the remote sensing process, Earth surface energy/matter interactions, photogrammetry basics, color theory and digital image display, introductory digital image processing and a survey of image types including panchromatic, color-infrared, multispectral, thermal and radar. Two hrs. lecture and 2 hrs. lab. Fall. Prerequisite: GEOG 275 or permission of instructor.

**GEOG 420 Topics in the Mapping and Geospatial Sciences**  
A project-based course covering advanced topics in the mapping sciences and geospatial intelligence. Topics may include digital image processing, advanced cartographic design and/or geospatial analyses. Two hrs. lecture/discussion and 2 hrs. lab per week. May be repeated for up to 6 hours provided the topics are different. Spring. Prerequisites: GEOG 275, GEOG 310, GEOG 317 and GEOG 413 or permission of instructor.

**GEOG 421 Regional Planning**  
Contemporary topics in regional planning and development. Group and individual projects and research. Fall. Prerequisite: GEOG 325 or permission of instructor.

**GEOG 422 Geography of the Suburbs**  
Geographic patterns of suburbanization in North America. Economic, social, political and environmental issues and planning challenges of modern suburbs. Comparative suburbanization in global perspective. Variable. Intersession and summer. Prerequisites: GEOG 104/114 and 12 credits in GEOG, SOC, ECON, and/or POSC.

**GEOG 425 Geography of Transportation**  
The linkages and flows of goods, services and people from area to area. The influence of various transportation modes in the historical development of regions; the role of transportation planning in shaping future regional and settlement growth. Spring, odd-numbered years. Prerequisite: GEOG 104/114 or GEOG 110 or junior standing.

**GEOG 427 Geography of Languages and Religions**  
Languages and religions examined from a geographic perspective. Emphasis placed on the five geographic themes of culture region, cultural diffusion, cultural integration, cultural landscape and cultural ecology. Fall, even-numbered years. Prerequisite: GEOG 104/114 or GEOG 110 or junior standing.

**GEOG 429 Synoptic Climatology**  
Relating global atmospheric circulation principles and patterns to regional and local weather. Introduction to forecasting and weather modeling. Spring of even numbered years. Prerequisite: GEOG 405 or permission of instructor. GEOG 205/PHYS 205 and MATH 220/MATH 236 recommended.

**GEOG 430 Surface Water Hydrology**  
Physical principles governing occurrence and movement of water, including precipitation, evaporation and transpiration, runoff, infiltration, soil water movement and stream channel morphology. Lab/field experience with stream gauging, infiltration measurement, soil hydraulic conductivity, flow frequency analysis and related phenomena. Human influence on surface water hydrology. Three hrs. lecture and 2 hrs. lab. Spring. Prerequisite: GEOG 103/113 or permission of instructor.

**GEOG 431 Quaternary Environments**  
An examination of theoretical concepts and multi-proxy physical evidence to establish the history and scale of environmental changes during the last 2.5 million years. Reconstruction techniques will include geomorphological mapping, sedimentology, pollen analysis and radiometric dating. Two hrs. lecture and 2 hrs. lab. Field component required. Spring, even-numbered years. Prerequisites: GEOG 103 (or 113) and GEOG 207 or 208, or permission of instructor.

**GEOG 432 Groundwater Hydrology**  
Principles governing the physical and chemical nature of water below the Earth’s surface, including fundamental concepts of groundwater flow, water-rock interaction and groundwater-surface water interactions. Exploration of human influence on the groundwater environment. Spring. Prerequisites: GEOG 207 and MATH 220 or MATH 236, or permission of instructor.

**GEOG 433 Surveying and Field Techniques**  
Theory of measurements, computation and instrumentation; field work, use of Global Positioning Systems (GPS) and compilation of topographic base maps; evaluation of errors; profiling, grading, slope and grade stakes. Fieldwork will include use of a variety of instruments. One hr. lecture and 4 hrs. lab. Fall. Recommended: GEOG 275.

**GEOG 435 Field Experiences in Geography**  
Examination and analysis of physical and/or human geography in the field. Variable. Repeatable for a maximum of 6 credits provided that locations are different. Field sites may vary from year to year. Prerequisite: permission of instructor.

**GEOG 441 Soil Analysis**  
Physical and chemical characteristics of soils as they relate to suitability for plant growth and reproduction. Laboratory and field testing of soil and soil-forming material. Physical properties of soil, moisture relationships, organic matter content and chemical constituents. Two hrs. lecture and 2 hrs. lab/field session. Fall. Prerequisite: GEOG 340 or permission of instructor.

**GEOG 442 Biogeography**  
Patterns of plant and animal distributions in the landscape are stressed and are considered in light of historical, environmental and biotic influences. Historical development of contemporary regional distributions, survey of world biomes and the importance of disturbance and human-induced changes on biotic distributions are considered. Spring. Prerequisite: GEOG 103 (or 113) or BIOL 149. BIOL 340 is recommended.

**GEOG 450 Urban Planning**  
City planning: needs assessment, land use suitability, policy and design. Participation in limited scale planning projects. Spring. Prerequisite: GEOG 324 or permission of instructor.

**GEOG 454 Geographical Tourist**  
A review of the geographical distribution of tourism, travel patterns and tourist impacts on natural environments and local populations. Fall, odd-numbered years. Prerequisite: GEOG 104/114 or GEOG 110 or junior standing.

**GEOG 455 Tourism Planning**  
Planning activities associated with the development and marketing of tourist activities. Consideration of both business and leisure travel. Group project focus. Spring, even-numbered years. Prerequisite: GEOG 454.

**GEOG 460 Natural Hazards in the Physical Environment**  
Study of hazards to human society arising from wind, water and earth either independently or from human activities. Perception, prevention and mitigation of hazards; spatial distribution and impact on global populations. Fall. Prerequisite: GEOG 103 or permission of instructor.

**GEOG 469 Principles of Atmospheric Dynamics**  
Physical dynamics of the atmosphere. Large-scale processes and horizontal flow, small-scale processes and the vertical dimension, Newton’s laws of motion, conservation of mass and energy, radiation, thermodynamics and angular momentum. Spring, odd-numbered years. Prerequisite: GEOG 405, MATH 220/MATH 236 or permission of instructor.

**GEOG 470 Soil and Water Engineering**  
Principles and methods for soil and water management related to surface land disturbances. Methods for calculating storm runoff and erosion, design of flow conveyances and water detention basins, and computer assisted modeling. Three hrs. lecture and 2 hrs. lab. Fall. Prerequisites: Completion of GEOG 103 and GEOG 275, or permission of the instructor.

**GEOG 471 Engineering for Land Development**  
Basic engineering techniques used in designing landforms, drainage systems, and roadways for land development projects. An overview of project development, equipment and management strategies. Two hrs. lecture, 2 hrs. lab. Spring. Prerequisites: Completion GEOG 103 and GEOG 275, or permission of the instructor.

**GEOG 472 Environmental Planning**  
Principles and methods used in environmental assessments and site analysis. Students will prepare an environmental impact statement, site development plan or mine reclamation plan. Two hrs. lecture, 2 hrs. lab. Spring. Prerequisite: GEOG 103 (or 113) or permission of the instructor. Capstone for Environmental Analysis and Planning major.

**GEOG 473 Environmental Law**  
A survey of federal and state environmental laws and regulations. History and role of environmental regulation related to air and water pollution, waste disposal and resource development. Fall. Prerequisite: GEOG 103/113 or junior standing.
**Global Business**

**INTR 330 International Business**

Introduction to foreign commerce; survey of the environmental, economic, political and social constraints on doing business abroad; discussion of issues and problems facing managers when firms do business with and within foreign countries. Credit cannot be earned for both INTR 330 and BUAD 330. Every semester. Prerequisite: 42 credits.

**INTR 490 Special Topics in Global Business**

Research or applied experience on an announced selected topic. Topics vary from semester to semester. Variable. Repeatable for a maximum of six credits if the topics are substantially different. Prerequisites: 75 credits and permission of instructor.

**INTR 491 Global Business Seminar**

Serves as the culmination of studies in the global business concentration by providing students with an in-depth immersion into all aspects of global business from international trade policy and marketing practice to entry decisions. Spring. Prerequisites: INTR 330, ECON 400 and senior standing. Capstone.

**Health**

**HEED 100 Personal Wellness**

2 cr.

Students will be assisted in developing an understanding of and appreciation for the importance of including lifelong wellness practices and physical activities in their daily lives. Students plan, implement and evaluate own wellness plan. Every semester.

**HEED 103 Foundations of Exercise & Sport Science**

3 cr.

The study of both the history and philosophy of exercise and sport science. Emphasis placed on the subdisciplines of athletic training and health/fitness. Every semester.

**HEED 200 Nutrition**

3 cr.


**HEED 206 Introduction to Athletic Training**

3 cr.

Provides the student interested in Athletic Training the first extensive exposure to the field. Focuses on the theoretical base of the field as well as introductory injury prevention and management concepts. Fall.

**HEED 210 Athletic Taping & Bracing Techniques**

1 cr.

The art and science of applying athletic tape and braces in the prevention and treatment of athletic injuries. Fall. AT majors only.

**HEED 222 Emergency Medical Techniques in Athl. Training**

4 cr.

An introduction to the daily management of the athletic training clinical environment. Fall. AT majors only.

**HEED 223 Clinical Experiences in Athletic Training I**

2 cr.

An introduction to the daily management of the athletic training clinical environment. Spring. AT majors only.

**HEED 305 Care and Prevention of Athletic Injuries**

3 cr.


**GEOG 475 Glacial & Periglacial Geomorphology**

3 cr.

Examination of the process, history and characteristics of the cryosphere. Glacial dynamics, associated sedimentary deposits and cold non-glacial frost dominated geomorphic processes and landforms. Analysis of glacial and periglacial landscapes using field data, sedimentary and biological evidence, remote sensing imagery and numerical models. Two hrs. lecture, 2 hrs. lab. Spring, odd-numbered years. Prerequisites: GEOG 103/113 and GEOG 207.

**GEOG 476 Fluvial-Coastal Geomorphology**

3 cr.

An examination of fluvial and near-shore coastal landscapes and sediments developed under the influence of moving water. Analysis of fluvial and near-shore landforms using field data, sedimentary and biological evidence, remote sensing imagery and numerical models. Two hours of lecture, two hours of lab. Spring, even-numbered years. Prerequisites: GEOG 103 and GEOG 207.

**GEOG 480 The Geographic Perspective**

3 cr.

The historical development of geographic thought with an emphasis on how geographers structure research questions. Spring. Prerequisite: junior standing and 18 hours of geography completed.

**GEOG 481 Geography Capstone**

1 cr.

Creation of a portfolio comprised of student work that demonstrates achievement of the established learning goals for the Geography major. Grade P/F. Every semester. Prerequisite: Senior standing or permission of department chair.

**GEOG 482: Senior Project (I)**

3 cr.

First stage of the Earth Science Senior Project, preparation and development of project design, identification of appropriate research methods, detailed project plan, initial background research (literature review) and preliminary data collection. Presentation in written report. Graded A/F. Every semester. Prerequisite: Senior standing, minimum 15 hours of geography, GEOG 380 or permission of instructor.

**GEOG 483 Senior Project (II)**

3 cr.

Concluding stage of the Earth Science Senior Project. Collection, presentation, analysis, interpretation, discussion and conclusions of original research by written thesis and oral exhibition. Graded A/F. Every semester. Prerequisite: GEOG 482.

**GEOG 485 Senior Project**

1 cr.

Capstone project in Urban and Regional Planning. Completion of independent project with public presentation of findings. Grade P/F. Every semester. Corequisite: GEOG 421 or GEOG 450.

**GEOG 486 Earth Science Capstone**

1 cr.

Capstone portfolio in Earth Science. Collection of students’ work that demonstrates achievement of established learning goals for Earth Science program. For professional application. Every semester. Prerequisite: Senior standing or permission of department chair.

**GEOG 488 Environmental Practicum**

3 cr.

A self-paced, independent research study capstone course for concentrators in Environmental Science in Earth Science. The student will select an environmentally-related topic in consultation with his/her advisory committee, prepare a research proposal, conduct a literature review and/or collect field data, and complete a substantive research paper (adhering to the format of a major professional journal) which is also presented in an open public forum. Every semester, summer. Prerequisites: completion of 24 credit hours in this concentration, senior standing, GPA of at least 2.0 in the concentration and approval of department chair prior to registration.

**GEOG 490 Special Topics in Geography**

3 cr.

A specialized topic or recent development in geography. Variable. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: 6 hrs. of geography or permission of instructor.

**GEOG 492 Internship: Research in Geography**

3 or 6 cr.

Academic component of internship. Requires co-registration in 495. Graded A-F. Every semester, summer.

**GEOG 495 Internship in Geography**

6 or 9 cr.

Experiential component of internship: guided work experience in conjunction with 492, must directly relate to academic program. Interns register for 9 credits in 495 and 6 credits in 492 or 6 credits in 495 and 3 credits in 492. Co-registration in other courses requires prior approval of the internship coordinator. Graded P/F. Every semester, summer. Prerequisites: major in Geography, Earth Science, Urban and Regional Planning, or Environmental Analysis and Planning with 24 hrs. completed, senior status, GPA of at least 2.5 in the major; approval of Department Chair; attendance at orientation meeting in semester prior to internship; submission of internship application by fifth week of semester prior to internship (application includes a resume and an internship proposal); requirements of cooperating agency, if any.

**GEOG 499 Research in Geography**

1-6 cr.

Research in field of interest chosen by student and faculty. Every semester, summer. Repeatable for maximum of 6 credits. Prerequisites: minimum of 15 hrs. of geography completed, GEOG 380 and permission of Department Chair.
### Health and Physical Education

**HEED 360 Organization & Administration of Exercise & Sports Science** 3 cr.
- Effective administration and management strategies in exercise and sport science.
- Human resource management, financial management, facility design and planning, client management issues and legal liability issues addressed. Emphasis on athletic administration, athletic training and health/fitness management. Every semester.

**HEED 311 Assessment & Evaluation Methodology** 3 cr.
- Testing and measurement techniques; evaluation procedures. Practice in testing and interpretation. May not be taken by students who have credit for former PHEC 311. Fall. Prerequisite: HPED 200.

**HEED 318 Orthopedic Assessment I: Lower Extremity** 4 cr.
- General and specific athletic injury assessment procedures. Emphasis is placed on the lower extremity on the spine, pelvis and lower extremity including gait and postural assessment. 3 hrs lecture, 2 hours lab. AT majors only.

**HEED 319 Orthopedic Assessment II: Upper Extremity** 4 cr.
- General and specific athletic injury assessment procedures. Emphasis is placed on the upper extremity on the head, abdomen, throat and thorax assessment. 3 hrs lecture, 2 hours lab. AT majors only.

**HEED 320 Pharmacology and General Medical Conditions** 3 cr.
- Pathology and clinical information about various general medical conditions commonly seen in the physically active. Spring.

**HEED 322 Clinical Experiences in Athletic Training II** 2 cr.
- The continued in-depth study of both the theoretical and practical clinical aspects of athletic training. Fall. AT majors only.

**HEED 323 Clinical Experiences in Athletic Training III** 2 cr.
- The continued in-depth study of both the theoretical and practical clinical aspects of athletic training. Spring. AT majors only.

**HEED 330 Epidemiology of Health and Disease** 3 cr.
- Examination of the contributions of lifestyle, genetics, environmental and social factors, and health care access to health and well-being of individuals and populations. Variable. Prerequisite: HEED 101.

**HEED 340 Organization & Administration of Athletic Training** 3 cr.
- Administration and management strategies in athletic training. Human resource management, financial management, facility design and planning, client management, ethics and legal liability issues. Fall. Prerequisite: HEED 206.

**HEED 408 Therapeutic Modalities in Sports Medicine** 4 cr.
- The study of both the theoretical and practical usage of various therapeutic modalities. Designed for individuals who routinely treat sports related injuries. 3 hours lab. Spring. Prerequisite: HEED 318. AT Majors only.

**HEED 413 Rehabilitation Techniques in Sports Medicine** 4 cr.
- Various aspects of the rehabilitation process for the physically active or athletic population. Goals, techniques, evaluation methods and specific rehabilitation programs covered. Credits cannot be earned for both HEED 413 and PHEC 413. 3 hrs lecture 2 hrs lab. Fall. Prerequisite: HEED 319. AT Majors only.

**HEED 414 Advanced Rehabilitation Techniques in Athletic Training** 3 cr.
- Advanced study in the science and application of safe rehabilitative exercise techniques for both the general population as well the physically active. Hands on manual-based techniques for patients will be the primary emphasis. Fall. Prerequisite: HEED 413. AT Majors only.

**HEED 416 Curriculum Design in Health Education** 3 cr.
- Health Education curriculum development, implementation, and evaluation; implementation of program strategies from evaluation results. Variable. Prerequisite: Major in Health and Physical Education; junior standing.

**HEED 418 Current Issues in Health** 3 cr.
- Identification and investigation of problems and solutions relevant to existing or emergent health topics. Variable.

**HEED 422 Clinical Experiences in Athletic Training IV** 2 cr.
- Summary of CAATE competencies and Role Delineation Study required to prepare for BOC exam. Emphasis is placed on clinical proficiencies/decision making skills. Fall. Prerequisites: HEED 322 and HEED 323. AT Majors only.

**HEED 423 Clinical Experiences in Athletic Training V** 2 cr.
- Summary of CAATE competencies and Role Delineation Study required to prepare for BOC exam. Emphasis is placed on clinical proficiencies/decision-making skills. Spring. Prerequisites: HEED 322 and HEED 323. AT Majors only.

**HEED 450 Evidence-Based Practice in Athletic Training** 3 cr.
- Scientific experimentation vs. anecdotal case description in athletic training. Student learns to systematically find, appraise and use the most current and valid research findings as the basis for clinical decisions. Prerequisites: Senior and permission of instructor.

**HEED 480 Capstone I in Athletic Training** 3 cr.
- Finalization of the theoretical and clinical application of upper body injury assessment and rehabilitation techniques used by athletic trainers, preparation for BOC exam. Fall.

**HEED 485 Capstone II** 3 cr.
- Finalization of the theoretical and clinical application of lower body injury assessment and therapeutic modalities used by athletic trainers, athletic nutrition, pharmacology and preparation for BOC exam. Spring. AT majors only.

**HEED 492 Seminar in Health Promotion** 3 cr.
- Monthly full day seminar meetings addressing work-related topics. Students must be enrolled in HEED 495 and have completed all other course work. Every semester.

**HEED 495 Internship in Health Promotion** 9 cr.
- Special work experiences related to the health promotion academic program. Full-time students must register for a minimum of 9 credit hours of internship. Graded P/F. Variable. Prerequisite: Completion of 90 credit hours or more with a “C” or better in the concentration and senior status.

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**Health and Physical Education**

You may not receive credit for both an HPED course and the same course formerly labeled as HEED or PHEC.

**HPED 103 Foundations of Physical Education** 3 cr.
- Theories and practices guiding instructional planning in physical education. Foundational knowledge for TOPE program. Prerequisite: Major in Health and Physical Education.

**HPED 104 Foundations of Health Education** 3 cr.
- Introduction to theories and practices guiding professional health educator responsibilities and competencies. Spring. Prerequisite: Major in Health and Physical Education.

**HPED 201 Teaching Fitness** 3 cr.
- Content and pedagogy related to teaching fitness in elementary and secondary physical education. Fall. Prerequisite: HPED 103.

**HPED 202 Teaching Tactical Games I** 3 cr.
- Content and pedagogy related to teaching invasion games and target games in elementary and secondary physical education using the tactical games model. Spring. Prerequisite: HPED 103.

**HPED 203 Teaching Tactical Games II** 3 cr.
- Content and pedagogy related to teaching net/wall games and striking/fielding games in elementary and secondary physical education using the tactical games model. Fall. Prerequisites: HPED 103, HPED 202.

**HPED 204 Teaching Dance and Gymnastics** 3 cr.
- Content and pedagogy related to teaching dance and gymnastics in elementary and secondary physical education. Every semester. Prerequisite: HPED 103.

**HPED 205 Teaching Outdoor Adventures and Group Initiatives** 2 cr.
- Content and pedagogy related to teaching outdoor adventures and group initiatives in elementary and secondary physical education. Every semester. Prerequisite: HPED 103.

**HPED 208 Inclusion Strategies in Health Education** 1 cr.
- Special understanding necessary to the adaptation of health education to disabilities of individual persons. Fall. Prerequisite: HPED 104.
COURSE DESCRIPTIONS

HPED 230 Assessment Design in Health & Physical Education 3 cr.
Cognitive, affective and psychomotor domain assessments for health and physical education following national and state standards. Follows Bloom's Revised Taxonomy. Spring. Prerequisite: HPED 104; major in Health and PE.

HPED 232 Teaching Health Content I: ATOD & Safety Education 2 cr.
Content and theory in the teaching of alcohol, tobacco, drugs, safety and injury prevention in a school health education program. May not be taken by students who have credit for former HEED 207 or 209. Fall. Prerequisite: HPED 104.

HPED 233 Teaching Health Content II: Human Sexuality & Nutrition Education 3 cr.
Content and theory in the teaching of family life and human sexuality, mental and emotional health, and nutrition in a school health education program. May not be taken by students who have credit for former HEED 220, 221 or 224. Spring. Prerequisite: HPED 104.

HPED 234 Teaching Health Content III: Disease Prevention 3 cr.
Content and theory in the teaching of personal, consumer, community and environmental disease prevention in a school health education program. May not be taken by students who have credit for former HEED 225, 226 or 227. Fall. Prerequisite: HPED 104.

HPED 301 Applied Biomechanics 3 cr.
Mechanics of human motion — muscles and joints. Emphasis on the teaching of various physical principles through the study of human motion. Biomechanical relationship in the upper and lower extremities, and the vertebral column. May not be taken by students who have credit for PHEC 303. Every semester. Prerequisite: BIOL 211.

HPED 310 Technology in Health and Physical Education 3 cr.
Introduction to content and practical applications of technology for the health and physical educators, including Microsoft Office programs, online presentation tools and discipline-specific technology devices. Spring. Prerequisites: HPED 103 and HPED 104. Tech. Fluency.

HPED 402 Adapted Physical Education 4 cr.
Adapting physical activities to individual disabilities. Three hrs. lecture, 3 hrs. lab. Prerequisite: HPED 416.

HPED 404 Health Instruction 3 cr.
Basic concepts of health education. Implementing a health education program for grades K-12. Every semester. Required in BLOCK semester prior to HPED 497 for Teacher Education. Prerequisites: HPED 416 and admission to PHASE II.

HPED 406 Applied Physiology 3 cr.
Understanding how the cardio-respiratory, digestive and muscle/neural systems function in the human body; how to teach physiological principles of training; how to promote a physically active lifestyle. May not be taken by students who have credit for PHEC 401. Every semester. Prerequisite: BIOL 211.

HPED 407 Motor Learning and Performance 3 cr.

HPED 408 Elementary Methods of Physical Education 3 cr.
Neuromuscular skills appropriate to grades K-6. Enhancing capacities for movement as a way to express oneself. One lecture and 2 labs per week. Every semester. Prerequisites: Admission to Phase II teacher education; HPED 416.

HPED 416 Curriculum Design in Health and Physical Education 3 cr.
Health and physical education curriculum development and evaluation. Instructional planning that is standards-based, developmentally appropriate and progressive. Spring. Prerequisites: Health and Physical Education majors only; junior standing.

HPED 418 Secondary Methods of Physical Education 3 cr.
Materials and methods of instruction in physical education at the secondary level. Teaching experience at local high school. Required in BLOCK semester prior to HPED 497 in Teacher Education. Every semester. Prerequisites: Admission to Phase II teacher education; HPED 416.

HPED 497 Teaching Internship: K-12 Programs 12 cr.
Supervised practicum in teaching in elementary and secondary schools. Joint supervision by school system and University personnel. Daily, full day for one semester. Graded P/F. Every semester. Prerequisite: Phase III admission.

Health Promotion

You may not receive credit for both a HLTH course and the same course formerly labeled HEED or PHEC.

HLTH 101 Community Health Promotion 3 cr.
Introduction to the profession, theories, and practice of health promotion. Spring.

HLTH 125 Health and Culture 3 cr.
An examination of personal and community health issues and problems as experienced across the cultural landscape of the United States. Fall. GEP Group F.

HLTH 330 Epidemiology of Health 3 cr.
Examination of the contributions of lifestyle, genetics, environmental and social factors, and health care access to health and well-being of individuals and populations. Fall. Prerequisite: HLTH 101.

HLTH 405 Sexuality 3 cr.
Content and topics related to sexual and reproductive health relative to the individual and society. Every semester.

HLTH 430 Methods & Materials for Health Promotion 3 cr.
Development of skills to formulate program goals, delineate program objectives, employ a variety of educational techniques, select resources, and integrate behavior change strategies for individual and population-based health education and promotion programs. Spring. Prerequisites: 6 hours in HLTH.

HLTH 435 Health Promotion Programming 3 cr.
Development and application of skills in planning, implementation, and evaluation of multi-level health promotion programs. Variable. Fall. Prerequisite: HLTH 430.

HLTH 483 Field Experience in Health Promotion 1 to 6 cr.
Field experience in health promotion. Sites of study may vary. Offered as needed. Repeatable for maximum of six credits if placement sites are different. Prerequisite: permission of instructor.

Health Science

HSCI 101 Medical Terminology 3 cr.
Discussion of medical terminology, symbols and abbreviations, and the application of this new language in the field of health care. Focus is on medical vocabulary and being able to construct terms using word parts such as roots, suffixes and prefixes as they relate to body structure and function. Fall and summer. Online.

HSCI 491 Health Science Seminar 1 cr.
Demonstration of disciplinary knowledge in a seminar format of on a topic or area of health science selected by the instructor. Repeatable for maximum of 4 credits if topics are substantially different. Fall. Prerequisite: senior standing. Health Science Capstone.

History

HIST 100 The Contemporary World in Historical Perspective 3 cr.
A consideration of major historical developments of the last century in diverse areas of the world that illuminate contemporary problems. Every semester. GEP Group B or E.

HIST 103 History of the United States 3 cr.
Survey of the political, social, economic, and diplomatic trends in United States history from 1492 until 1876. Every semester.

HIST 104 History of the United States 3 cr.
Survey of the political, social, economic, and diplomatic trends in United States history from 1876 to the present. Every semester.
HIST 111 Honors: The Contemporary World in Historical Perspective 3 cr.
A consideration of major historical developments of the last century in diverse areas of the world that illuminate contemporary problems. Both reading and writing assignments are more challenging than those in HIST 100. Credit cannot be earned for both HIST 100 and HIST 111. Spring. Prerequisite: enrollment in the Honors Program or permission of the instructor. GEP Group B or F.

HIST 113 World History 3 cr.
Survey of Western and Non-Western Civilizations and cultures from the earliest times to 1500. Fall.

HIST 114 World History 3 cr.
Survey of Western and non-Western Civilizations and cultures from 1500 to 1900. Spring.

HIST 290 Special Topics in History 3 cr.
A study of an historical topic, problem, or period allowing for more specific focus and greater depth than is possible at the 100-level. Variable. Repeatable for maximum of 6 credits if topics are substantially different.

HIST 299 Writing and Research in History 3 cr.
The study and practice of the techniques of historical research and writing. Completion of this course with a C or better is required for final admission to the History major. Every semester. Prerequisite: complete at least one of HIST 103/104/113/114 and enroll concurrently with or soon after completing at least one 300-400 level course.

HIST 301 Traditional Africa 3 cr.
The African pre-colonial states: their governments, economic systems, cultural patterns, achievements, and relations with other African and non-African peoples. Also offered as AAST 300. Spring.

HIST 303 History of Latin America 3 cr.
Earlier Latin American history: Aztecs, Incas, and Mayas, the Age of Conquest, the colonial period and the struggle for independence. Variable.

HIST 304 History of Latin America 3 cr.
Later Latin American history: the development of the Latin American nations from independence until the present. Variable.

HIST 306 Medieval Europe 3 cr.
A topical survey of European history and Europe's interactions with its neighbors from the 5th century to about 1300. The environmental, economic, social, political, and cultural factors that made for a distinctive civilization in Europe and provided the foundations for future developments in European history. Variable.

HIST 307 Renaissance and Reformation Europe 3 cr.
The political, social, economic, and cultural transformation of Europe from medieval (1300) to early modern (1600). Emphasis on cultural innovation (Renaissance) and religious diversity and conflict (Reformation). Variable.

HIST 308 Europe, 1600-1815 3 cr.
European history from 1600 through Napoleon. The political, social, economic, and cultural development of Europe from a traditional society to the beginnings of the modern period. Variable.

HIST 310 Ancient Greece and Rome 3 cr.
Bronze Age, Archaic, and Classic civilizations of Greece; Alexander and Hellenistic era; early Italy and the Etruscans; Roman republic and empire; fall of Rome. A balance of political, cultural, socio-economic aspects, and interactions with neighboring peoples. Variable.

HIST 341 The Modern and Contemporary Middle East 3 cr.
The religious and secular history of the Middle East from the late 19th century to the present era. National and international aspects of the region before, during, and after the Western imperial thrust into the area. Variable.

HIST 353 Contemporary Africa 3 cr.
The 20th-century emergence of representative African nations; the achievements of these nations; their current political, economic, and social problems. Variable.

HIST 356 Modern and Contemporary Asia 3 cr.
The rising spirit of nationalism, colonial resistance movement, reactions of the imperial powers, and the emergence of new nations against the background of the old cultures. The economic, political, social, and diplomatic implications of the change. Variable.

HIST 376 Modern Europe 3 cr.
European history in the modern period, from the Napoleonic era (1799-1815) to present day, with particular attention to geographic, historical, political and economic distinctions between western and eastern Europe. Variable.

HIST 403 Imperial Russia 3 cr.
The political, economic, social, and cultural history of the Russian empire, from its roots in the ninth-century Kievian state to its fullest expansion under the last Romanov tsar, Nicholas II. Variable.

HIST 404 Revolutionary and Soviet Russia 3 cr.
Russia since the revolution of 1905: political developments, both domestic and foreign; economic system, organization; social and cultural evolution. Variable.

HIST 409 World Environmental History 3 cr.
Historical study of environmental dimensions of change in human history. Historical case examples covering most world regions, and periods such as prehistory, the ancient world, agrarian societies, and the recent industrial world. Variable.

HIST 418 Native Peoples of the Americas 3 cr.
Survey of the history of Native American peoples in the Western Hemisphere from pre-Columbian times to the present. The impact of Europeans on native societies and cultures and the natives' relationships with the emerging nation-state. Variable. GEP Group F.

HIST 419 A History of Terrorism 3 cr.
The study of terrorism, or conspiratorial political violence that targets the few to gain the attention of the many, in historical context. A consideration of political, economic, social and cultural factors in the evolution of terrorism as a global phenomenon. Variable.

HIST 420 Green: Environment and Economy in US History 3 cr.
Environmental history of colonial America and the United States (1607–Present). Particular attention paid to the impact of economic development on the natural world, the politics of conservation, and the changing ecology of daily life. Variable.

HIST 433 Public History 3 cr.
An introduction to the ideas and methods of public history, emphasizing practical application of research, writing and critical thinking skills in the public sector. Variable.

HIST 436 Women’s Issues in World History 3 cr.
The historical study of the major issues affecting women's lives in the modern age (18th-21st centuries) and across multiple cultures. Variable. GEP Group F.

HIST 437 History of Korea 3 cr.
Survey of Korean history from the foundations of society on the peninsula to modern times. Looks at how Koreans have utilized their historical memory to define themselves. Variable.

HIST 445 History of Maryland 3 cr.
Survey of Maryland history from its founding until the present. Variable.

HIST 450 The History of Mexico 3 cr.
The development of Mexican society from the pre-Columbian period to the present. The Aztec and Mayan civilizations, the implanting of Spanish control, the origins of the Mexican Revolution and its long-range impact. Variable.

HIST 455 Latin American Revolutions 3 cr.
Twentieth-century revolutions in Latin America. Theories of revolution, the causes, leaders and followers, post-revolutionary developments and the international consequences of Latin American revolutions. Variable.

HIST 457 India 3 cr.
The philosophical, political, economic, and cultural evolution of India from antiquity until the present. Variable.

HIST 458 History of China 3 cr.
Social, political, economic, and diplomatic aspects from the prehistoric and early dynastic era to the current age. Variable.

HIST 459 History of Japan 3 cr.
The rise and power of Shintoism; Japan's rise to imperial power and the rise of Western civilization; the lack of political, social, and cultural change from the prehistoric and early dynastic era to the current age. Variable.
HIST 459 History of Japan 3 cr.
Social, political, economic, and diplomatic aspects from the prehistoric and early dynastic era to the current age. Variable.

HIST 461 Colonial America, 1607-1763 3 cr.
From the settlement of Jamestown through the French and Indian War. European backgrounds, religious developments, regional differences, Indian relations, and cultural life. Variable.

HIST 462 Revolutionary America 1763-1789 3 cr.
From the conclusion of the French and Indian War to the formation of the United States Constitution: British-American imperial relations; cultural developments in the 18th century; origins, impact, and general nature of the American Revolution; and the formation of the Federal Union. Variable.

HIST 463 The Age of Jefferson and Jackson, 1789-1848 3 cr.
From Washington's presidency through the administration of James K. Polk. The philosophies of Hamilton and Jefferson, the origins of political parties, politics of the Jackson era, Indian removal, the development of transportation, the frontiers, slavery, abolitionism, and emerging sectionalism. Variable.

HIST 464 The Civil War and Reconstruction, 1849-1877 3 cr.
From the end of the Mexican War through the period of Southern Reconstruction: growth and sectionalism, and the social, political, military, and economic impact of the War Between the States. Variable.

HIST 465 Gilded Age America, 1877-1913 3 cr.
From the presidency of Hayes through the Progressive Era: the labor movement, growth of the city, immigration, imperialism, art and architecture, and politics. Variable.

HIST 466 The United States in the 20th Century, 1914-1945 3 cr.
The home front during World War I, postwar reaction, the 1920s, the Stock Market Crash, the Great Depression, the New Deal, and American society during World War II. Variable.

HIST 467 The U.S. in the 20th Century, 1945-Present 3 cr.
The Truman, Eisenhower, and Kennedy Years; the Cold War and McCarthyism; the 1960s; Black and student movements; Johnson and Vietnam; Nixon and Watergate; and more recent presidencies. Variable.

HIST 470 America and the Vietnam War 3 cr.
An interdisciplinary study of the origins, development and consequences of the United States involvement in Vietnam from 1950-1975, with emphasis on political and social history. Variable.

HIST 475 Genocide and Mass Violence 3 cr.
Genocides of the modern era from that of the Herero of German Southwest Africa (early 20th century) to that of Darfur in the Sudan (early 21st century). Variable.

HIST 480 The American West 3 cr.
The West from the Mississippi River to the Pacific, including Alaska, emphasizing the 19th century. Spanish exploration; the fur empire; Indian assimilation and extinction; the cowboy's frontier; mining frontier; women in the West; the myth of lawlessness; the West in art, literature, and song; the 20th century West. Variable.

HIST 481 Experiential History/International 3 cr.
Experiential exploration of various topics in international history through student re-enactment using role playing/game models. Taught in rotation by interested faculty. Repeatable for a maximum of 6 credits if topics are substantially different. Variable.

HIST 482 Experiential History/Americas 3 cr.
Experiential exploration of various topics in Americas history through student re-enactment using role playing/game models. Taught in rotation by interested faculty. Repeatable for a maximum of 6 credits if topics are substantially different. Variable.

HIST 484 Practicum in History 3 cr.
Practical experience in public history through placement with an organization or agency for the purpose of completing a specific project. May be repeated once for credit in a different placement. Variable. Repeatable for maximum of 6 credits if placement sites are substantially different.

HIST 485 Seminar in History 3 cr.
Topics in history presented by students, faculty, and invited guests. Individual research (senior thesis) with interim reports and formal presentation of paper. Discussion leadership expected. Spring. Prerequisite: completion of HIST 299 with a C or better and senior standing. Capstone.

HIST 489 Special Topics in International History 3 cr.
A detailed study of a limited topic, problem, or period in European/African/Asian history. Topics vary from semester to semester. Variable. Repeatable for maximum of 6 credits combined if HIST 489 and HIST 390 if topics are substantially different.

HIST 490 Special Topics in the Americas 3 cr.
The preparation of a research paper under the direction of the History Department. The topic must relate to an upper level history course previously taken in that area. Normally limited to seniors majoring in history with at least a 3.0 GPA in all history courses. Permission of advisor, instructor, and chair of the department must be secured during the preceding semester. In exceptional circumstances, may be repeated once for credit. Intersession and Summer. Repeatable for maximum of 6 credits.

HIST 492 Internship Seminar 3 cr.
Academic component of internship. Requires co-registration in 495. Normally Summer. Prerequisites: junior or senior status, in good academic standing, submission of Internship Agreement form to internship director prior to registering.

HIST 495 Internship in History 6-12 cr.
Experiential component of internship: guided work experience in conjunction with 492; must directly relate to academic program. Full-time interns register for 12 credits in 495 and 3 credits in 492 and may not enroll in other courses. Part-time interns register for 6 credits in 495 and 3 credits in 492. Graded P/F. Normally Summer. Prerequisites: junior or senior status, in good academic standing, submission of Internship Agreement form to internship director prior to registering.

HIST 498 Readings in History 3 cr.
Directed readings in some specialized area or topic of history. The topic must relate to an upper level history course previously taken in that area. Normally limited to seniors majoring in history with at least a 3.0 GPA in all history courses. Permission of advisor, instructor, and chair of the department must be secured during the preceding semester. In exceptional circumstances, may be repeated once for credit. Intersession and Summer. Repeatable for maximum of 6 credits.

HIST 499 Individual Research in History 3 cr.
The topic must relate to an upper level history course previously taken in that area. Normally limited to seniors majoring in history with at least a 3.0 GPA in all history courses. Permission of advisor, instructor, and chair of the department must be secured during the preceding semester. In exceptional circumstances, may be repeated once for credit. Intersession and Summer. Repeatable for maximum of 6 credits.

ITEC 312 Human-Computer Interaction 3 cr.
Basic concepts of human-computer interaction, human factors, performance analysis, cognitive processing, usability studies, human-centered software, accessibility, emerging technologies, developing effective interfaces. Variable. Prerequisites: Grade of C or better in COSC 130 and PSYC 150/151.

ITEC 315 Programming 3 cr.
Fundamental data structures including the use of stacks, queues, graphs and trees; fundamental programming constructs including basic syntax and semantics; object oriented programming; algorithms and problem solving; event-driven programming; recursion. Variable. Prerequisites: Grade of C or better in COSC 100/110 or grade of C or better in COSC 101 and COSC 130 or permission of the instructor.

ITEC 345 Database Systems I 3 cr.
Introduction to principles of database development focusing on major business functions and benefits of databases, database planning, database models, database design, and database applications. Learn how to approach a real world database project, convert the project requirement to a design and finally implement using a commercial database management system. Variable. Prerequisite: Grade of C or better in ITEC 315.
**ITEC 355 Network Implementation**  
3 cr.  
Foundations of networking, LANs, WANS, service providers, packets, hubs, routers, switches, Internet protocols, layered models, physical layer, security, and application areas. Variable. Prerequisite: Grade of C or better in COSC 102 and ITEC 315.

**ITEC 360 Operating Systems**  
3 cr.  
Fundamentals of operating systems including both Unix and Windows operating systems; architecture and organization; computing infrastructure; enterprise deployment software; firmware; hardware; installation; maintenance; administrative activities; administrative domains. Variable. Prerequisites: Grade of C or better in COSC 102 and ITEC 315.

**ITEC 363 PC Module Installation and Maintenance**  
3 cr.  
Managing, maintaining, and troubleshooting PC hardware. Two hrs. lecture, 2 hrs. lab. Variable. Prerequisite: Grade of C or better in ITEC 360.

**ITEC 364 PC Software Installation and Maintenance**  
3 cr.  
Managing, maintaining, and trouble-shooting PC software. Survey of current software applications like MS servers, SAP Knowledge Management software, and other Enterprise Resource Planning software. Two hrs. lecture, 2 hrs lab. Variable. Prerequisite: Grade of C or better in ITEC 360.

**ITEC 410 Diversity in the Global Information Technology**  
3 cr.  
Issues and influences that information technology (IT) has had on the global society and culture. Changing nature of work, education, government, culture, and society around the world; place of professionals entering the global IT workforce. Global ethical issues such as intellectual property rights, computer-related crime, privacy concerns, public policy issues, and IT influences on global economics. Variable. Prerequisite: Grade of C or better in COSC 305.

**ITEC 414 Knowledge Management**  
3 cr.  
Basic concepts, skills, techniques, and practices of knowledge management in the context of information sciences and information technology. Technologies including intranets, groupware, web logs, content management systems, and collaborative tools in both individual and organizational contexts. Use these KM technologies, review case studies, research methods of knowledge organization, and analyze and evaluate KM processes and systems. Variable. Prerequisite: Grade of C or better in ITEC 315.

**ITEC 442 Electronic Commerce**  
3 cr.  

**ITEC 445 Database Systems II**  
3 cr.  
Advanced topics such as database security, importing and exporting data, creating indexes and views, script writing, and performing administrative tasks on a database server. An advanced project implementation is required. Variable. Prerequisite: Grade of C or better in ITEC 345.

**ITEC 452 Network and Administration Security**  
3 cr.  
Basic network management, network configurations; routing fundamentals, basic router troubleshooting; introduction to network security; protocols for security services; securing network systems and applications: email security, web security, IP security and VPN, remote secure login, security in routing, firewalls. Variable. Prerequisite: Grade of C or better in ITEC 355.

**ITEC 462 Emerging Issues and Technologies**  
3 cr.  
Introduction to emerging issues, technology forecasting and analysis; overview of emerging issues and leading technologies in information technology and how they impact information systems, users, the IT labor force and society. Variable. Prerequisite: Grade of C or better in ITEC 360.

**ITEC 470 Security and Risk Management**  
3 cr.  
Security issues, management processes, architecture and models; risk analysis and management; security planning, analysis and safeguards; security policies development and administration; contingency planning, incidence handling and response; security standards and certification processes. Variable. Prerequisites: At least 72 credits earned or permission of the instructor.

**ITEC 475 Computer and Cyber Forensics**  
3 cr.  
Fundamental issues and concepts of computer forensics; aspects of computer and cyber crime; methods to uncover, protect, exploit, and document digital evidence; tools, techniques, and procedures to perform computer and cyber crime investigation. Variable. Prerequisite: Grade of C or better in ITEC 355 or ITEC 360.

**ITEC 480 Project Management**  
3 cr.  
Basic concepts, skills, tools, techniques, and practices of project management in the context of information technology planning and managing information technology projects. Basic phases of the project management life-cycle: Initiating, Planning, Executing, Controlling, Closing. Fundamental project management knowledge areas: Integration, Scope, Time, Cost, Quality, Human Resources, Quality, Risk, and Procurement. Practical experience via usage of project management software tools. Variable. Prerequisites: At least 72 credits earned or permission of the instructor.

**ITEC 489 Capstone**  
1 cr.  
Creation of professional vita, formation of portfolio consisting of student's best examples of programs and research papers. Amalgamation of curricular concepts into a unified entirety. Every semester. Prerequisites: At least 72 credits earned and completion of all core courses and a grade of C or better in at least two required advanced courses.

**ITEC 491 Seminar in Information Technology**  
1-6 cr.  
Group study of advanced topics under faculty supervision; up to 3 credits can apply to major or minor in information technology. Repeatable for a maximum of 6 credits if topics are substantially different; up to 3 credits count towards major or minor. Variable. Prerequisites: Grade of C or better in core courses and written permission of faculty supervisor. DEPARTMENT APPROVAL REQUIRED PRIOR TO REGISTERING.

**ITEC 494 Field Experience in Information Technology**  
3 cr.  
Work experience in industry, government, or small business providing an opportunity for practical application of academic training in information technology. The course requirements are: (1) Minimum of 90 hours of field experience; (2) A written report describing in detail the work performed in the field in conjunction with an oral presentation to interested faculty and students; (3) A project paper on a topic related to the work experience. Previous work experience may not be substituted for this course. More than one field experience may be completed, but the number of credits applied to an information technology major is limited to 3. Repeatable for maximum of 6 credits if placement sites are different; up to 3 credits count in the major. Every semester. Prerequisites: Junior or senior standing (at least 60 credits earned) and completion of the core courses in information technology with a grade of C or better. DEPARTMENT APPROVAL REQUIRED PRIOR TO REGISTERING.

**ITEC 499 Individual Problems in Information Technology**  
1-6 cr.  
Individual study of advanced topics under faculty supervision; up to 3 credits can apply to major or minor in information technology. Students must submit a written proposal to faculty supervisor and department describing topics, time allocation and limitation, objectives, assignment, and projects. Repeatable for maximum of 6 credits; up to 3 credits count towards major or minor. Variable. Prerequisites: Grade of C or better in core courses and written permission of faculty and supervisor. DEPARTMENT APPROVAL REQUIRED PRIOR TO REGISTERING.

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### Integrated Math/Science

**SCIE 320 Integrated Science**  
4 cr.  
Introduction to underlying principles and themes common to all scientific disciplines including biology, physics, chemistry, earth science and astronomy. Appropriate mathematical topics integrated into all aspects of course. Includes laboratory activities, field experiences and computer exercises; exploration of current software, multi-media, instrumentation and telecommunication; application of technology to science emphasized. Three 2-hr. lecture/lab/discussion. Variable. Prerequisites: BIOL 149, MATH 207 and PHSC 203 or permission of instructor.

**SCIE 321 Integrated Science/Mathematics**  
3 cr.  
Continuation of Integrated Science with emphasis on mathematical modeling. Application of technology to science and mathematics emphasized. Collaboration with students at sister institutions using electronic media encouraged. Two 2-hr. lecture/lab/discussion. Variable. Prerequisite: SCIE 320 or permission of instructor.
INTERDISCIPLINARY STUDIES • INTERNATIONAL STUDIES

SCIE 335 Oceanography 3 cr.
Basic principles of oceanographic science and discussion of the role of oceans in global environmental systems. Fall, even-numbered years. Also offered as GEOG 335. Prerequisites: GEOG 103 (or 113), BIOL 149 and completion of a college-level mathematics course.

SCIE 400 Issues in Context: From Specialist to Generalist 3 cr.
Interdisciplinary capstone research seminar led by a team of science, mathematics and education faculty. Students work cooperatively on extended project dealing with a complex societal problem of scientific and technological import. Upon conclusion of study, a policy recommendation will be written and delivered in public form. Active engagement in project design, implementation, analysis, and reporting. Variable. Prerequisites: two lab science courses including PHSC 203; MATH 207; and junior standing; or permission of instructor.

Interdisciplinary Studies

IDIS 150 First-Year FSU Colloquium 3 cr.
Fostering a Sense of Understanding through exploration of a current issue, theme, problem, person or persons, cultural or historical period, world area or national region, or other unifying principle through interdisciplinary study, discussion and activities. Every semester. To be completed within first 45 hours or soon after transfer if applicable. GEP Group E.

IDIS 155 Introduction to Sustainability Studies 3 cr.
Introduction to sustainability as a field of study and a career. Consideration of environmental, economic and social equity aspects of sustainable living. Group practicum project. Three hr. lecture, two Saturday group projects required. Also offered as SUST 155. Every semester. GEP Group E.

IDIS 160 Science, Technology and Society 3 cr.
Interdisciplinary examination of models of research, development of science and technology, and application and subsequent impact of developments on society and the environment. Every semester. GEP Group E.

IDIS 191 Freshman Project 3 cr.
Continuation of fall semester FSU Connections learning communities for freshman students. Real-world or laboratory application of theoretical constructs and interdisciplinary perspectives acquired by students enrolled in FSU Connections the previous fall. Student projects will culminate in a product (e.g., video presentation, display, artistic work, etc.) presented to the University community at the end of the semester. Spring. Prerequisites: freshman standing, learning community member during the previous fall semester and permission of instructor.

IDIS 350 Advanced FSU Colloquium 3 cr.
Fostering a Sense of Understanding through exploration of a current issue, theme, problem, person or persons, cultural or historical period, world area or national region, or other unifying principle through interdisciplinary inquiry and research. Every semester. To be completed after earning 45 hours. Activities emphasize student discussions of assigned readings, oral and written reports. Topics vary. You cannot receive credit for both IDIS 351 and IDIS 350. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisites: Participation in the Honors Program and junior or senior standing or permission of the instructor(s). GEP Group E.

IDIS 351 Honors: Advanced FSU Colloquium 3 cr.
Fostering a Sense of Understanding through exploration of a current issue, theme, problem, person or persons, cultural or historical period, world area or national region, or other unifying principle through interdisciplinary inquiry and research. Variable. To be completed after earning 45 hours. Activities emphasize student discussions of assigned readings, oral and written reports. Topics vary. You cannot receive credit for both IDIS 351 and IDIS 350. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisites: Participation in the Honors Program and junior or senior standing or permission of the instructor(s). GEP Group E.

IDIS 491 Honors Seminar 3-6 cr.
An interdisciplinary study of a particular topic. Activities emphasize student discussions of assigned readings, oral and written reports. Topics vary. Repeatable for maximum of 9 credits if topics are substantially different. Prerequisites: Participation in the Honors Program and junior or senior standing or permission of the instructor(s).

IDIS 493 Honors Thesis 3 cr.
Individual research or other individualized learning experience on a specific topic initiated by the student. Course requirements include submission of a final paper or completed project. Pre-registration includes submission of a proposal prior to the end of the preceding semester. Proposal must be approved by the faculty member sponsoring the thesis and the Honors Program Advisory Group. See Honors Program Handbook for additional information. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisites: Participation in the Honors Program, junior or senior standing and proposal approval.

International Studies

INST 150 Introduction to World Religions 3 cr.
A comparative introduction to the major world religions in their historical, social, political and cultural contexts. Every semester. GEP Group F.

INST 200 Introduction to International Studies 3 cr.
An introductory study of the diverse areas of the world with a focus on contemporary issues and conflicts. Every semester. GEP Group F.

INST 491 Seminar in International Studies 3 cr.
In-depth examination of topics in international studies through presentations, discussions and the preparation of a seminar paper. Spring. Prerequisites: completion of International Studies core courses and six hours in an area of focus, or permission of the instructor. ENGL 308 is recommended. Capstone.

INST 492 Internship Seminar 3-6 cr.
Academic component of internship. Requires co-registration in INST 495. Full-time interns register for 6 credits in 492 and 9 credits in 495 and may not enroll in other courses. Part-time interns must register for 3 credits in 492 and 6 credits in 495. Graded A-F. Normally summer.

INST 495 Internship in International Studies 6-9 cr.
Experiential component of internship in conjunction with INST 492. Guided work experience must directly relate to student’s academic program. Full-time interns register for 9 credits in 495 and 6 credits in 492 and may not enroll in other courses. Part-time interns must register for 6 credits in 495 and 3 credits in 492. Graded A-F. Normally summer. Prerequisites: junior or senior standing. GPA of 3.0 recommended; coordinator’s approval of internship required before registering.

Leadership Studies

LEAD 101 Introduction to Leadership Studies 3 cr.
Examines fundamental principles and develops basic skills for effective leadership in group, organization and community contexts. Spring.

LEAD 201 Leadership Theories and Practices 3 cr.
Examines traditional and contemporary leadership theories and their application to current leadership challenges. Fall. Prerequisite: LEAD 101.
LEAD 401 Citizen Leader 4 cr.
Theoretical and experiential exploration of the opportunities, obstacles and benefits involved in becoming engaged in civic life and social change. Six hours of integrated lecture/lab/discussion per week. Variable. Prerequisites: CMST 102, LEAD 101, LEAD 201 and 6 credits from approved elective list.

LEAD 499 Independent Study 1-4 cr.
Individualized learning experience on a specific leadership topic, culminating in a written paper. Prior to the semester of the project, the student must submit a preliminary proposal to the Coordinator of the Leadership Studies minor, who will assign a mutually agreeable instructor to supervise the student’s project. Variable. Repeatable for maximum of 4 credits.

Liberal Studies

LBST 450: Senior Self-Assessment 1 cr.
Completion of a narrative self-statement assessing the focus area, program of study, and courses taken. Portfolio presentation. P/F grade. Every semester. Repeatable until passed. Prerequisite: Senior standing. Capstone

LBST 494 Field Experience in Liberal Studies 3-6 cr.
Completion of a work experience as part of focus in Liberal Studies. Work experience must relate directly to academic program. P/F. Prerequisites: Junior or senior standing. By twelfth week of the semester prior to experience, students must submit an application including (1) proposal, (2) letter of acceptance from proposed agency indicating direct supervisor and total number of hours to be worked, (3) agreement to keep a written record of hours worked and reflective journal of each day worked.

LBST 499 Directed Study 3 cr.
Capstone opportunity for Liberal Studies majors: seminar, readings course or independent study. Paper required. P/F. Every semester. Permission of LBST coordinator required.

Management

You cannot receive credit for both a MGMT course and the same course formerly labeled BUAD.

HMGT 396 Hospitality Management Special Topics 3 cr.
A detailed study of a limited topic in an area of the hospitality industry. Topics vary from semester to semester. Repeatable for maximum of 12 credits if topics are substantially different. Courses provided at foreign exchange partner university. Variable. Prerequisite: HMGT 101 offered by UMES.

MGMT 110 Career and Professional Development I 1 cr.
Introduction to the professional aspects of a career in one of the majors or concentrations offered by the College of Business. Credit cannot be earned for both MGMT 110, and BUAD 105 and BUAD 110. Every semester.

MGMT 251 Management of Organizations 3 cr.
The practice of managing in today’s dynamic environment, the purpose and processes of organizations, managing individuals and groups in organizations. Emphasis is placed on skills needed for managerial success. Credit cannot be earned for both MGMT 251 and MGMT 351. Every semester. Prerequisite: 24 credits. Additional prerequisite or corequisite: BUAD 110 for all ACCT, BUAD and ECON majors (Business Economics Concentration) only.

MGMT 310 Career and Professional Development II 2 cr.
Provides professional advice for students ending their academic careers and getting ready to embark on professional careers. Credit cannot be earned for both BUAD 310 and BUAD 400. Only students with credit for BUAD 105 may take this class for 1 credit. Every semester. Prerequisites: Declared major in a College of Business discipline, 70 credits and C grade or better in BUAD (MGMT) 110 or P grade in BUAD 105. Credit cannot be earned for both MGMT 310 and BUAD 310.

MGMT 315 New Business Ventures 3 cr.
Examines the problems and challenges of creating and managing a small business. Emphasis on the development and implementation of a business idea, and the practical aspects of starting and managing a small business and its functional components: accounting, finance, management and marketing. Every semester. Prerequisite: 42 credits.

MGMT 355 Operations Management 3 cr.
Introduction to the operations function of a business. Relation between value and efficient operations, forecasting, capacity planning, management of supply chain and materials, quality issues and project management. Every semester. Prerequisites: a grade of C or better in MATH 109/209/110/380, MGMT 251.

MGMT 356 Leadership and Human Behavior 3 cr.
Introduction to leadership theories and concepts; emphasis on applications of leadership qualities and human skills required for managerial success and organizational effectiveness. Every semester. Prerequisite: 42 credits.

MGMT 357 Human Resources Management 3 cr.
Effective utilization of human resources in organizations: Emphasis on principles, practices and legal aspects of job analysis, recruitment and selection, training, performance appraisal, compensation, safety and health, employer-employee rights, union-management relations; current issues in the field. Every semester. Prerequisite: a grade of C or better in MGMT 251.

MGMT 359 Quality Management 3 cr.
The Quality Management concept; relationship between quality and competitiveness; developing a quality culture through establishing a customer focus, employee involvement and empowerment, team building, education and training: quality tools; implementing quality management. Every semester. Prerequisite: a grade of C or better in MGMT 251, MATH 109/209/110/380.

MGMT 405 Business Ethics and Social Responsibility 3 cr.
Business ethics; the relationship of business with society; stakeholder relationships and the social responsibility of business to various constituencies; social, ethical and public policy issues affecting business and the managerial approaches for dealing with these issues. Not open to students who have credit for former BUAD 380 or 480. Every semester. Prerequisite: 42 credits.

MGMT 425 Entrepreneurial Business Plan 3 cr.
Opportunity assessment and feasibility analysis, as well as implementation, deal structure and operations for entrepreneurial-minded FSU students. Each topic is approached from a pragmatic perspective. Class discussions and assignments are based upon live experiences. The lecture, readings and speakers all reflect that purpose. Spring. Prerequisite: MGMT 315.

MGMT 450 International Management 3 cr.
Study of international and comparative management theories, concepts, and practices; managing in a global environment, cross-cultural management practices, managing human resources in international corporations, unique challenges in managing multinational organizations and contemporary issues facing global managers. Spring. Prerequisite: INTR 330 or MGMT 251.

MGMT 452 Staffing and Development 3 cr.
The role of human resource professionals at every stage of the employment process from prehiring to postfiring, staffing policies, internal and external recruitment, HR development strategies and training program development, career management, outplacement programs. Fall. Prerequisite: MGMT 357.

MGMT 456 Compensation Management 3 cr.
The principles of compensation management, job analysis and evaluation, establishment and administration of pay systems, employee benefits, executive compensation. Fall. Prerequisite: MGMT 357.

MGMT 457 Labor Relations 3 cr.
The role of management and unions in our society, labor-management problems and their resolution, the collective bargaining process, the legal framework of labor-management relations, administration of the labor contract. Every semester. Prerequisite: MGMT 357 or major in Law and Society.

MGMT 485 Business Policy and Strategy 3 cr.
Strategy and policy formulation and implementation; effects on various levels of management. Integrating the functions of the enterprise within the social, political, legal and economic environment. A case-study approach requiring both written and oral presentations of case problems. Every semester. Prerequisites: 90 credits and 18 hrs. of business administration, including a grade of C or better in MGMT 251, MKTG 261 and FINA 370 or FINA 476. Accounting, General Management, Human Resource Management, International Business, Small Business/Entrepreneurship Capstone.
MGMT 490 Special Topics in Business Administration - Management

A detailed study of a limited topic, problem or period. Topics vary from semester to semester. Repeatable for a maximum of 6 credits if topics are substantially different. Variable. Prerequisites: 90 credits and 18 hrs. of business administration course work.

MGMT 494 Internship in Management

Guided work experience in management for business, nonprofit or government organizations. Minimum of 135 clock hours of experience for 3 credits (270 hours for 6 credits). Academic components include, but not limited to, one internship paper, internship log and site supervisor’s evaluation of the student’s performance. Previous experience not acceptable for credit. Repeatable for a maximum of 6 credits. Every semester and summer. Prerequisites: Junior or senior standing; department chair’s approval.

MGMT 499 Independent Study in Management

Research and report on a specific topic not covered by regularly rostered courses. Topic will be defined by the student in conjunction with faculty sponsor. Proposals must be approved prior to registration. Repeatable for a maximum of 4 credits. Every semester. Prerequisites: 18 credits of business administration course work, 90 credits and permission of department chair.

Marketing

You cannot receive credit for both a MKTG course and the same course formerly labeled BUAD.

MKTG 361 Principles of Marketing

3 cr.
Introduction to basic marketing concepts, strategy and terminology. Focus on understanding marketing as the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services. Key concepts include relationship marketing, consumer behavior, global marketing and marketing research. Every semester. Prerequisite: 29 credits. Additional prerequisite or corequisite: MGMT 110 for all ACCT, BUAD and ECON majors (Business Economics Concentration) only.

MKTG 363 Advertising

3 cr.
Focus on planning and managing advertising as a promotional tool to meet marketing goals, understanding the role of advertising in an organization’s integrated marketing communication program, emphasizing strategic planning as a means to effectively communicate with consumers, creating primary demand, selecting and evaluating media in the context of environmental factors related to advertising. Every semester. Prerequisite: a grade of C or better in MKTG 361.

MKTG 364 Merchandising

3 cr.
Vital role of merchandise planning and process management, product placement, layout, customer service and pricing. Special emphasis on forecasting, planning, evaluating and presenting merchandise lines to meet target market demands in a retail environment. Fall of odd-numbered years. Prerequisite: a grade of C or better in MKTG 361.

MKTG 365 Professional Selling and Relationship Management

3 cr.
Fundamentals of professional selling, including the selling process from pre-approach to post-sale service. Emphasis on the selling process, managing sales personnel and territories, creating sales strategies and understanding the importance of customer relationship management. Fall. Prerequisite: a grade of C or better in MKTG 361.

MKTG 366 Consumer Behavior

3 cr.
Overview of individual and organizational decision-making in the purchase, consumption and disposition of goods and services. Examine factors influencing consumers’ decision-making, including internal forces of perception, motivation, learning, personality, lifestyle and attitudes and external forces of culture, demographic, social class, reference group and family. Every semester. Prerequisite: a grade of C or better in MKTG 361.

MKTG 460 Global Marketing

3 cr.
Study the impact of globalization, multilateral trade agreements and national culture and their effect on marketing environment and strategic marketing decision-making. Specific topics include international product adaptation, cross-cultural consumer behavior, multinational distribution, international pricing and integrated marketing communication in the global marketplace. Spring. Prerequisite: a grade of C or better in MKTG 361.

MKTG 462 Marketing Research

3 cr.
Students design a marketing research project, sample the population, collect and analyze data, and interpret the findings. There is an emphasis on performing basic statistical analysis using a hand-held calculator as well as statistical software. Every semester. Prerequisites: a grade of C or better in MKTG 361 and MATH 109/110/380.

MKTG 465 Marketing Strategies

3 cr.
Market analysis, product/service planning, channels of distribution, pricing and promotional decision-making, analysis of environmental constraints and market opportunities using a case-based approach to learning. Every semester. Prerequisites: a grade of C or better in MKTG 361 and MKTG 366.

MKTG 466 Services Marketing

3 cr.
Examines the challenges of marketing services and the importance of the service “product” in the economy. Includes the nature of the service “product” in different industries and the role of customer service. Fall. Prerequisite: a grade of C or better in MKTG 361.

MKTG 467 Internet Marketing

3 cr.
Use of the Internet for business, primarily from a marketing perspective. Examination of Internet structure, function and terminology and the investigation of marketing strategies, use of social media and best business practices for success in e-commerce. Spring. Prerequisite: a grade of C or better in MKTG 361.

MKTG 469 Marketing Plans Development

3 cr.
Development of complete and formal marketing plans for an existing or new business or an existing or new consumer product/service. Structure encompasses all aspects of contemporary marketing planning from situational analysis, survey research, to action plans, implementation and control. Every semester. Prerequisites: MKTG 366, 462, 465. Marketing Capstone.

MKTG 490 Special Topics in Business Administration – Marketing

3 cr.
A detailed study of a limited topic, problem or period. Topics vary from semester to semester. Fall. Prerequisites: 90 credits and 18 hrs. of business administration course work.

MKTG 494 Internship in Marketing

3 or 6 cr.
Guided work experience in marketing with business, nonprofit or government organizations. Minimum of 135 clock hours of experience for 3 credits or 270 for 6 credits. Academic components include, but not limited to, one internship paper for 3 credits or two internship papers for 6 credit hours, internship log and site supervisor’s evaluation of the student’s performance. Previous experiences are not acceptable for credit. Maximum of 6 credit hours. A 6-credit Internship choice counts as one elective course. Repeatable for a maximum of 6 credits. Every semester. Prerequisites: Junior or senior standing; department chair’s approval.

MKTG 499 Independent Study in Marketing

1 - 3 cr.
Research and report on a specific topic not covered by regularly rostered courses. Topic will be defined by the student in conjunction with faculty sponsor. Proposals must be approved prior to registration. Repeatable for a maximum of 4 credits. Every semester. Prerequisites: 18 credits of business administration course work, 90 credits and permission of department chair.

Mass Communication

MCOM 100 Mass Communication Radio Workshop

1 cr.
Enter-level work experience in applying mass communication theories at radio station WFVM. Repeatable for a maximum of 4 credits. May not be applied to fulfillment of major requirements. Variable. Prerequisite: permission of instructor.

MCOM 101 Mass Communication Television Workshop

1 cr.
Hands-on television experience. Serve as technical personnel for student-produced newscast. Repeatable for a maximum of 4 credits. May not be applied to fulfillment of major requirements. Variable.

MCOM 105 Introduction to Mass Communication

3 cr.
Historical evolution of today’s media industries and career paths. Emphasis on contemporary issues affecting those industries and careers. Consideration given to emerging media, required skills, including professional expectations, standards, ethical considerations, and social impacts. Every semester.
COMMUNICATION

MCOM 150 Introduction to Radio
Study of radio in the United States, both AM and FM, with presentations on the basic electronics, operation, regulation, staffing and selling. Variable. 3 cr.

MCOM 213 Audio Production
Examines the theories and technology used in audio production for music, radio, TV, and film. Provides students with a useful vocabulary and the basic theory upon which production skills can be built. Two hrs. lecture, 2 hrs. lab. Every semester. 3 cr.

MCOM 246 Intro to Mass Communication Research Methods
Introduction to methods employed in both theoretical and applied research in Mass Communication. Basic assumptions, strengths, weaknesses in quantitative, qualitative, historical, critical cultural methods. Application of methods in theory development and industry decisions. Every semester. Prerequisite: MCOM 105. 3 cr.

MCOM 250 Announcing and Performance
Development of skills required of the individual performer in the preparing, announcing, and narrating of various types of materials for audio and video formats. Variable. 3 cr.

MCOM 287 Introduction to Video Production
Principles and practices of video field production. Focus on visual composition, lighting and sound, production, planning and operation of portable video recording equipment. Emphasis on shooting and editing for broadcast, non-broadcast and multimedia applications. Not open to students who have credit for MCOM 311. Two hrs. lecture, 2 hrs. lab. Every semester. 3 cr.

MCOM 301 Multi-Media Workshop
Techniques in creating multimedia content. Digital audio/video editing techniques and streaming media techniques and practices considered. Variable. Prerequisite: MCOM 287 and MCOM 213. 3 cr.

MCOM 313 Advanced Audio Production
Development of advanced skills in multiple aspects of audio production. Recording and mastering various types of audio projects. Utilization of digital editing equipment and CD authoring techniques. Fall. Prerequisite: MCOM 213 or permission of instructor. 3 cr.

MCOM 316 Electronic Media Management
A study of problems of organization and management of radio and television stations with attention to problems of programming, sales, public relations, governmental agencies, and audiences. Also a consideration of regulatory, station, personnel, and affiliation restraints upon decision-making in management. Variable. Prerequisite: MCOM 105. 3 cr.

MCOM 325 Seminar in Public Relations
Provides an overview of the public relations process: planning, execution and evaluation. Emphasis is placed on news releases, media pitches, backgrounders, features, websites and social media, reports, proposals, newsletters, brochures, public service announcements and posters. Not open to students who have credit for former MCOM 490 Introduction to Public Relations. Variable. Prerequisite: C or better in GEP Advanced Writing (Core Skill 2). 3 cr.

MCOM 326 Writing for Electronic Media
Fundamentals of media and multi-media writing; vocabulary, syntax, organizing ideas according to industry needs. Sound message versus print message; print versus electronic writing. Every semester. Prerequisite: MCOM 105. 3 cr.

MCOM 336 Broadcast-Cable Programming
Study of the general theoretical principles of scheduling and selecting programming for broadcasting, cable, and internet uses. An examination of general programming principles and practices, regulatory constraints upon programming, the nature and interpretation of ratings and their influence upon programming. Variable. Prerequisite: MCOM 105. 3 cr.

MCOM 346 Mass Communication Theory
Theories of the process of mass communication, how media affect society, the evolution within a social and cultural context, ethical and social dimensions. Extensive reading in theory, history, and research. Every semester. Prerequisites: MCOM 105 and MCOM 246. 3 cr.

MCOM 350 Beginning Television Screenwriting
Introduction to and overview of the elements of theme, plot, character and dialogue in dramatic writing for television. Exercises in episodic research, story creation, pitching and drafting and the application of each step to the development of the student’s dramatic writing. By the end of the course, each student will have completed a “spec” script for a current television drama to use as a writing sample suitable for submission to festivals, agents, managers and producers. Variable. 3 cr.

MCOM 387 Multi-Camera Studio Production
Survey of professional uses of video production, including television, corporate video, web-based video and educational video. Introduction to the production process, shooting techniques, digital editing techniques and Internet streaming. Not open to students who have credit for MCOM 212. Two hrs. lecture, 2 hrs. lab. Fall. Prerequisite: MCOM 287. 3 cr.

MCOM 447 Telecommunications Law
Survey of both constitutional and administrative laws, regulations and public policies that govern the United States’ telecommunications systems. Every semester. Prerequisites: MCOM 105, 60 hours and good academic standing, or permission of instructor. 3 cr.

MCOM 456 Creative Strategies in Advertising and Media Buying
Investigation of how effective advertising campaigns are mounted by agencies. Creative strategies emphasized. A campaign for a new product is researched, designed, and presented by students. A basic understanding of media placement, rates and rate cards included. Variable. Prerequisites: MCOM 105 and MCOM 246 or permission of the instructor. 3 cr.

MCOM 465 Music Promotion and Production
Students will apply promotion and production skills to a real world situation by organizing, promoting and producing a full-length audio CD. Students will also organize and promote a live concert featuring artists from the CD. Repeatable for maximum of 6 credits. Spring. Prerequisite: permission of instructor. 3 cr.

MCOM 485 Electronic Media Aesthetics and Criticism
Study of the aesthetic principles guiding development of electronic media products. Examination of approaches to analyzing and critiquing media products. Critical viewing and analysis of media texts. Emphasis on aural and visual media: radio, television and film. Every semester. Prerequisites: MCOM 105 and a C or better in GEP Advanced Writing (Core Skill 2) or permission of instructor. 3 cr.

Examines a variety of new and emerging telecommunications technologies. Considers the historical and ethical impacts of these technologies on the media; issues and economics driving the implementation of these technologies; and their adoption and use by consumers. Every semester. Prerequisites: MCOM 105, MCOM 246 and MCOM 346. 3 cr.

MCOM 487 Advanced Video Production
Combines studio and field production elements. Emphasis on advanced production, editing, and post-production techniques. Two hrs. lecture, 2 hrs. lab. Spring. Prerequisites: MCOM 287, MCOM 387 or permission of instructor. 3 cr.

MCOM 488 Multi-Camera Field Production
Techniques and skills necessary to utilize multi-cameras in a variety of field productions. Two hrs. lecture, 2 hrs. lab. Every semester. Repeatable for a maximum of 6 credits if roles are substantially different. Prerequisites: MCOM 287, MCOM 387 or permission of instructor. 3 cr.

MCOM 490 Special Topics in Mass Communication
Research or applied experience on an announced selected topic. Repeatable if topics are substantially different. Variable. Prerequisite: permission of instructor. 3 cr.

MCOM 492 Internship Project
Academic component of internship experience, in conjunction with MCOM 495. You can earn no more than 18 credits of internship hours (MCOM 492 and MCOM 494 and MCOM 495 combined) during your academic career. Graded A through F. Every semester. Corequisite: MCOM 495. 3 cr.

MCOM 494 Mass Communication Internship
Supervised field experience for Mass Communication majors. Participation in the communication operations of a commercial, governmental, or educational organization. You can earn no more than 18 credits of internship hours (MCOM 492 and MCOM 494 and MCOM 495 combined) during your academic career. Every semester. Prerequisites: Junior/senior status, declared major in mass communication, minimum 12 cr. in mass communication and 2.5 overall GPA or permission of instructor; Internship Agreement Form approved by department internship director before registering. Students should not contact prospective internship sites until they consult with their advisor. 1 to 3 cr.
Mathematics

DVMT 095 Pre-Algebra Mathematics 3 cr.
Primary focus is to improve students' basic math skills. Concepts of arithmetic, geometry, units of measure and elementary algebra. Students may not withdraw unless withdrawing from the University. Completion of this course will meet the prerequisites for MATH 104, MATH 109/209 or DVMT 100. Graded P/F. Every semester. Does not fulfill Core Skill 3, nor may the credits be used to fulfill the 120 hr. minimum toward graduation. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR MAJOR OR MINOR IN MATHEMATICS. Note: Students are placed in this course based upon results of Mathematics Placement Test administered by the University. Students who fail this course on their second attempt or thereafter will be academically dismissed.

DVMT 100 Intermediate Algebra 3 cr.
Introduction to the fundamental aspects of algebra, including properties of the real number system; integer arithmetic; operations with positive and negative exponents; variables and linear equations; graphing; second degree equations; factoring; operations with positive, negative and fractional exponents; and quadratic equations. Completion of this course will meet the prerequisites for MATH 102/119 and 106. Graded A, B and F. Every semester. Does not fulfill Core Skill 3, nor may the credits be used to fulfill the 120 hr. minimum toward graduation and the grades will not be used in the calculation of the GPA used for graduation or University Honors.

MATH 104 Introduction to Mathematical Problem Solving 3 cr.
Introduction to problem solving with emphasis on strategies applied to algebra, geometry and data analysis. Every semester. Variable. Prerequisite: A passing score on the Mathematics Placement Test administered by the University or DVMT 095. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR MAJOR OR MINOR IN MATHEMATICS. MAY BE USED TO FULFILL CORE SKILL 3.

MATH 109 Elements of Applied Probability and Statistics 3 cr.
For the non-math major; less rigorous than MATH 380. Elementary probability theory; collection, organization and analysis of data; descriptive statistics; the normal and binomial distributions; introduction to inferential statistics; and applications. Every semester. Prerequisite: a passing score on the Mathematics Placement test administered by the University or DVMT 095. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS. MAY BE USED TO FULFILL CORE SKILL 3.

MATH 110 Honors: Elements of Appl. Probability & Statistics 3 cr.
Introduction to statistics, with emphasis on probability theory and inferential statistics. More rigorous and broader than MATH 109/209. Use of the computer as a tool in statistical analyses. Probability theory, sampling distributions, estimation, hypothesis testing, parametric and nonparametric tests, correlation, regression and analysis of variance. Written research project required. Credit cannot be earned for both MATH 109/209 and MATH 110/219. Spring. Prerequisite: acceptance into the University Honors Program or permission of the instructor. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS. MAY BE USED TO FULFILL CORE SKILL 3.

MATH 118 Applied Mathematics for Business 3 cr.
Intended for students in business and accounting. Topics in basic and intermediate algebra, with an introduction to calculus from a computational and intuitive point of view: linear, quadratic, exponential and logarithmic functions; linear regression; derivatives. Applications to business emphasized. Every semester. Prerequisite: A passing score on the Mathematics Placement Test administered by the University or a grade of B or better in DVMT 100. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.

MATH 119 College Algebra 3 cr.
Functions and their graphs, inverse functions, solutions of equations and inequalities, polynomial and rational functions, exponential and logarithmic functions, systems of equations and matrices. Every semester. Prerequisite: A passing score on the Mathematics Placement Test administered by the University or a grade of B or better in DVMT 100. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS. MAY BE USED TO FULFILL CORE SKILL 3.

MATH 120 Pre-Calculus Mathematics 3 cr.
Topics needed for the study of calculus: functions, analytic geometry and selected topics from algebra and trigonometry. For students who plan to study the sequence MATH 236, MATH 237, MATH 238. Every semester. Prerequisite: A passing score on the Mathematics Placement Test administered by the University or a C or better in MATH 102/119. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS. MAY BE USED TO FULFILL CORE SKILL 3.

MATH 206 Problem Solving for Elementary Teachers I 3 cr.
Heuristics of problem solving, set theory, functions, estimation, measurement, numeral systems, rational numbers and elementary number theory. Emphasis on students constructing and expanding their mathematical knowledge using modern technologies and pedagogies to investigate questions and solve problems. Learning activities include collecting and analyzing data from simple experiments, identifying mathematical models for the data and using these models to make predictions which can then be tested. Admission priority will be given to Early Childhood Education and Elementary Education majors. Every semester. Prerequisite: a grade of C or better in either MATH 102/119 or MATH 109/209. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.

MATH 207 Problem Solving for Elementary Teachers II 3 cr.
A continuation of MATH 206. Basic concepts of geometry, including measurement ideas, probability and statistics. Technological tools such as spreadsheets, geometric software and statistical packages will be used. Admission priority will be given to Early Childhood Education or Elementary Education majors. Every semester. Prerequisite: C or better in MATH 206. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.

MATH 220 Calculus for Applications I 3 cr.
An applications-oriented approach to differential and integral calculus, for the student who desires a course more intuitive than Calculus I, II, III. Credit may not be earned for both MATH 220 and MATH 236. Every semester. Prerequisite: A passing score on the Mathematics Placement Test administered by the University or a C or better in MATH 102/119. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.

MATH 221 Calculus for Applications II 3 cr.
Continuation of MATH 220. Credit may not be earned for both MATH 221 and MATH 237. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.
MATH 236 Calculus I
Limits and continuity, the derivative, antiderivatives and definite integrals. Credit may not be earned for both MATH 236 and MATH 226. Every semester. Prerequisite: A passing score on the Mathematics Placement Test administered by the University or a grade of C or better in MATH 120. MAY BE USED TO FULFILL CORE SKILL 3.

3 cr.

MATH 237 Calculus II
Techniques and applications of integration, introductory differential equations, infinite series. Credit may not be earned for both MATH 237 and either MATH 227 or MATH 228. Every semester. Prerequisite: a grade of C or better in MATH 236.

4 cr.

MATH 238 Calculus III
Vectors, functions of several variables, vector functions, partial derivatives, multiple integration, line and surface integrals. Credit cannot be earned for both MATH 238 and MATH 320. Every semester. Prerequisite: a grade of C or better in MATH 237.

4 cr.

MATH 315 Foundations of Mathematics
Theory of sets; mathematical logic; quantifiers; methods of proof in mathematics. Variable. Prerequisite: A grade of C or better in MATH 237 or permission of the instructor.

3 cr.

MATH 340 Fundamental Concepts of Geometry
Experimental and informal geometry, properties of plane and space figures, geometric constructions, proof. Variable. Prerequisite: MATH 207. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.

3 cr.

MATH 350 Linear Algebra I
Systems of linear equations, matrices and linear transformations, determinants and vector spaces. Fall. Prerequisite: MATH 236 or MATH 220 or concurrent enrollment in MATH 236 or MATH 220.

3 cr.

MATH 380 Introduction to Probability and Statistics
Discrete probability theory with statistical applications. Counting techniques; random variables; distributions; expectations; hypothesis testing and estimation, with emphasis on discrete models. Spring. Prerequisite: A C or better in either MATH 220 or MATH 236 or permission of instructor.

3 cr.

MATH 425 Introduction to Real Analysis
Topology of real numbers; sequences, cluster points, continuity, theory of differentiation and integration; elements of measure theory; infinite series. Variable. Prerequisite: MATH 238 and MATH 315.

3 cr.

MATH 426 Introduction to Complex Analysis
Analytic functions; Cauchy’s Theorem; Taylor and Laurent series; meromorphic functions; residue theory; conformal mapping. Variable. Prerequisite: MATH 238 and MATH 315.

3 cr.

MATH 432 Differential Equations
Solution of ordinary differential equations, Laplace transforms, numerical methods using mathematical software, solution by series. Every semester. Prerequisite: MATH 237.

3 cr.

MATH 436 (also PHYS 436) Mathematical Physics
Topics in mathematical methods: finite differences, Fourier series, partial differential equations, complex variables and conformal mapping with physical applications. Spring, odd-numbered years. Prerequisite: MATH 432 and PHYS 216 or PHYS 262, or permission of instructor.

3 cr.

MATH 440 Modern College Geometry
An introductory synthetic study of geometry: finite, absolute, affine, Euclidean, hyperbolic, elliptic, and projective geometries. Variable. Prerequisites: MATH 237 and MATH 315.

3 cr.

MATH 451 Modern Higher Algebra
Basic study of the structure of groups and rings: isomorphism theorems; special kinds of rings; additional topics. Variable. Prerequisites: MATH 237 and MATH 315.

3 cr.

MATH 452 Linear Algebra II
Basic study of vector spaces and their relationships to matrix algebra: the algebra of linear transformations, linear functionals and dual spaces, inner product spaces and decomposition theorems. Variable. Prerequisites: MATH 238 and MATH 350.

3 cr.

MATH 460 Introductory Topology
The topology of Euclidean space; homeomorphisms and quotient maps; connectedness; compactness; topological surfaces; simplicial complexes and surfaces; the Euler characteristic. Variable. Prerequisites: MATH 238 and MATH 315.

3 cr.

MATH 461 History of Mathematics
Historical development of mathematics and its concepts. Contributions of individuals and societies to the development of mathematics. Variable. Prerequisite: MATH 237.

3 cr.

MATH 465 Theory of Numbers
Divisibility; Diophantine equations; congruences; sums of squares; additional topics. Variable. See department secretary for up-to-date schedule. Prerequisites: MATH 237 and MATH 315.

3 cr.

MATH 470 Mathematical Models and Applications
Model-building processes, the assumptions underlying mathematical models and the generation and interpretation of results from models. Theory and illustrative applications of modeling. Analyses of models constructed by students. Every three semesters beginning in spring 2003. Prerequisites: MATH 237 or permission of instructor.

3 cr.

MATH 480 Probability and Statistics
A deeper study of probability and statistics than MATH 380. Continuous probability distributions and their statistical applications. Variable. See department secretary for up-to-date schedule. Prerequisites: MATH 238, MATH 380, or permission of instructor.

3 cr.

MATH 490 Selected Topics in Mathematics
A specialized topic or recent development in mathematics. May be taken more than once if the topics are substantially different. Does not duplicate any other course offered by the Department of Mathematics. Repeatable for maximum of 6 credits if topics are substantially different. Fall, odd-numbered years. Prerequisite: MATH 238 or permission of instructor.

3 cr.

MATH 491 Seminar in Mathematics
Individual reports and group discussions on mathematical topics and applications, review of important topics in the undergraduate curriculum, assessment exam. Written report and presentation required. Fall. Mathematics majors only. Prerequisites: senior status or permission of instructor. Capstone.

3 cr.

MATH 492 Internship Seminar
Academic component of internship. Requires co-registration in MATH 495. Graded A-F.

1-3 cr.

MATH 495 Internship in Mathematics
Experiential component of internship: guided work experience in conjunction with MATH 492; must directly relate to academic program. Full-time interns register for 12 credits in MATH 495 and 3 credits in MATH 492 and may not enroll in other courses. Part-time interns register for 6 credits in MATH 495 and 3 credits in MATH 492. Graded P/F. Prerequisites: good academic standing; submission of Internship Agreement form to internship director prior to registering; completion of MATH 236, 237, 238 and four math courses at 300 or 400 level (or enrollment in the fourth 300 or 400 math course) at time of applying; GPA of at least 3.0 in math; and any requirements of the sponsoring agency. MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.

6 or 12 cr.

MATH 499 Individual Study in Mathematics
Individual research performed under supervision, culminating in a written paper or completed project. Repeatable for maximum of 6 credits if topics are substantially different. Enrollment by permission of the department.

1-3 cr.

Music

Music Theory

MUSC 100 Introduction to Music Theory
Primary focus is to improve students’ basic knowledge of Music Theory to progress into the Music Theory (MUSC 102) and Aural Skills (MUSC 104) sequence. May not be used to satisfy requirements for the music major or minor. Note: Students are placed in this course based upon results of a Music Theory Placement Exam given by the Department of Music. Spring.

2 cr.

MUSC 101 Music Fundamentals
The rudiments of music designed for non-music majors. Every semester.

2 cr.
MUSC 102 Theory I  
Introduction to the fundamentals of music theory including rhythm, scales, intervals, voice leading and harmony. Introduction to MIDI notational and sequencing software. Required for music majors and minors. Note: Students are placed in this course based upon results of a Music Theory Placement Exam given by the Department of Music. Fall. Prerequisite: concurrent enrollment in Aural Skills I, MUSC 104, except by permission of instructor.

MUSC 103 Theory II  
Continuation of MUSC 102, with further emphasis on the development of analysis and written work. Continued use of MIDI notational and sequencing software. Required for music majors and minors. Spring. Prerequisites: MUSC 102 and MUSC 104 or permission of instructor. Concurrent enrollment in Aural Skills II, MUSC 105, except by permission of instructor. Tech. fluency.

MUSC 104 Aural Skills I  
Development of aural skills through sight singing and melodic and harmonic dictation. Computer-assisted lab assignments. Required for music majors and minors. Meets 100 minutes per week. Fall. Prerequisite: Concurrent enrollment in Theory I, MUSC 102, except by permission of instructor.

MUSC 105 Aural Skills II  
Continuation of MUSC 104 with further emphasis on aural skills through sight singing and melodic and harmonic dictation. Computer-assisted lab assignments. Required for music majors and minors. Meets 100 minutes per week. Spring. Prerequisites: MUSC 102 and MUSC 104 or permission of the instructor. Concurrent enrollment in Theory II, MUSC 103, except by permission of the instructor.

MUSC 204 Theory III  
A continuation of MUSC 102 and 103, exploring chromatic harmony and modulation. Written and analytical applications. Continued use of MIDI notational and sequencing software. Required for music majors. Fall. Prerequisites: MUSC 103 and MUSC 105 or permission of instructor. Concurrent enrollment in Aural Skills III, MUSC 206, except by permission of instructor.

MUSC 205 Theory IV  
Further application of chromatic materials with an emphasis on 20th century techniques. Written and analytical applications. Continued use of MIDI notational and sequencing software. Required for music majors. Spring. Prerequisites: MUSC 204 and MUSC 206 or permission of instructor. Concurrent enrollment in Aural Skills IV, MUSC 207, except by permission of the instructor.

MUSC 206 Aural Skills III  
Continuation of MUSC 103 and MUSC 105 with further emphasis on aural skills through sight singing and melodic and harmonic dictation. Computer-assisted lab assignments. Required for music majors. Meets 100 minutes per week. Fall. Prerequisites: MUSC 103 and MUSC 105 or permission of the instructor. Concurrent enrollment in MUSC 204, Theory III, except by permission of the instructor.

MUSC 207 Aural Skills IV  
Continuation of MUSC 206 with further emphasis on aural skills through sight singing and melodic and harmonic dictation. Computer-assisted lab assignments. Required for music majors. Meets 100 minutes per week. Spring. Prerequisites: MUSC 204 and MUSC 206 or permission of the instructor. Concurrent enrollment in MUSC 205, Theory IV, except by permission of the instructor.

MUSC 214 Jazz Theory & Analysis  
Emphasis on the development of analytical skills and vocabulary as applied to jazz composition and improvisation. Students will demonstrate their increased skills through written assignments and performance. Spring. Prerequisites: MUSC 102 and MUSC 104.

MUSC 305 Orchestration  
Study of ranges, tonal possibilities, technical limitations and necessary transpositions for all orchestral and band instruments; scoring of short pieces in various styles for orchestra. Variable. Prerequisite: MUSC 205.

MUSC 356 Computer Music Technology  
Practical approach to the use of various music applications computers, Musical Instrument Digital Interface synthesizers and associated software (sequencer and notational). Designed to give students an introductory survey of computer music technology as it applies to performance and academic areas within the field of music. Classes are laboratory in nature, held in the Electronic Music Lab. Variable. Prerequisite: permission of the Department.

MUSC 401 Form and Analysis  
Analysis of musical structure and style in Western civilization. Variable. Prerequisite: MUSC 205.

MUSC 407 Counterpoint  
A stylistic approach to the study of counterpoint based on the harmonic-contrapuntal style of J.S. Bach as found in his Two- and Three-Part Inventions, Well-Tempered Clavier and choral preludes. Variable. Prerequisite: MUSC 205.

Music History and Literature  
MUSC 106 Music in Contemporary Culture  
An introduction to the appreciation and understanding of contemporary musical styles, artists, groups and trends. Rock, hip-hop, country and pop music are some styles that may be discussed. Every semester. GEP Group A.

MUSC 110 Music Appreciation  
Introduction to the appreciation and understanding of music. Every semester. GEP Group A.

MUSC 117 Music of Africa, Asia and the Americas  
Introduction to musical traditions and practices of various African societies, China, India, Indonesia, Japan and Latin-influenced countries in Central and South America (including Caribbean nations). Every semester. GEP Group A or F.

MUSC 250 Gender and Sexuality in Music  
An examination of popular and art music by and from the perspective of gender and sexuality. Variable. GEP Group F.

MUSC 258 Music History I: Music of the Baroque and Classical Periods  
A survey of musical style from Baroque through the Classical period. Analysis, listening, discussion set in a cultural context. Spring.

MUSC 290 Music History II: Music of the Romantic and Modern Periods  
A survey of musical style from the Romantic through the Contemporary (21st century) periods. Analysis, listening, discussion set in a cultural context. Fall.

MUSC 311 Jazz History  
Exploration of the roots and development of jazz as an American art form from the late 19th to 21st century; examination of influences from Africa, South America and Europe; discussion of important artists, genres and style characteristics of instrumental and vocal jazz. Fall. GEP Group F.

MUSC 313 Music History III: Music of the Medieval and Renaissance Periods  
A survey of musical style from the Gregorian chant through the Renaissance period. Analysis, listening, discussion set in a cultural context. Spring.

MUSC 346 The Opera  
Representative operas from 1600 to the present. Variable. Prerequisite: permission of instructor.

MUSC 493 Senior Research  
In-depth investigation of a specific aspect of music history, music theory or music literature. Preparation and performance of a Senior Lecture Recital combining discussion of research with performance of supporting repertoire. Graded P/F. Every semester. Prerequisites: MUSA 287; completion of 12 credits of 300-level private instruction. Corequisite: MUSA 300-level private instruction. Capstone for Music Studies Track.

Music Teaching  
MUSC 125 Introduction to Music Education  
Provide students with overview of principles and practices of music education in today's schools. This course is a prerequisite for professional education courses in music education. Includes observation of regular classrooms and music instruction at all levels of P-12 education. Every spring.
MUSC 252 Music Field Experience 0.5 cr.
Observation of P-12 music classrooms and aiding teachers at the elementary level and secondary level as instructed. Every semester. Prerequisites: MUSC 125 and fingerprinting on file with the Department of Educational Professions.

MUSC 310 Basic Principles of Conducting I - Choral 3 cr.
Introduction to the basics elements of choral and instrumental conducting. Includes study and practice of techniques of conducting, including conducting patterns, methods of interpretation, rehearsal techniques, performance practice and style, and score analysis. Emphasis on choral, combined choral and instrumental scores. Required for all Performance Specializations and P-12 Teacher certification option majors. Fall. Prerequisite: MUSC 205 or permission of instructor.

MUSC 350 Music and Creative Interaction for the Elementary Classroom Teacher 3 cr.
Classroom use of music skills for children from pre-school through sixth grade. Emphasizes the elements and skills of music and provides opportunity to develop and apply teaching strategies to the teaching of music through moving, singing, listening, playing, reading, creating and creative interaction. Designed for the elementary education major. Every semester. Prerequisite: sophomore standing.

MUSC 352 Choral Music Methods K-12 3 cr.
Materials and techniques of choral instruction, computer-assisted instruction and integrated technology, and performance at all levels of public schools. Required of voice and piano majors in teacher education. Spring. Prerequisites: MUSA 287 and MUSA 415.

MUSC 353 Instrumental Music Methods K-12 3 cr.
Materials and techniques of instrumental instruction, computer-assisted instruction and integrated technology, and performance at all levels of public schools. Required of all instrumental majors in teacher education. Spring. Prerequisites: MUSA 287 and MUSA 415.

MUSC 358 The Business of Music & Arts Management 3 cr.
Provides an in-depth overview of the field of Music Business and Arts Management. Management theory and practice as it is applied in the world of the arts. Mission and vision, organizational structure and leadership, facilities design and planning, technology and the arts, marketing and promotion, operations, development, legal issues and arts advocacy. Fall.

MUSC 360 Special Topics in Music 1-2 cr.
A focused, in-depth study of a musical topic. Does not duplicate any other course offered by the Department. Repeatable for maximum of 4 credits if topics are substantially different. Prerequisite: permission of Department Chair.

MUSC 410 Basic Principles of Conducting II – Instrumental 3 cr.
A continuation of Basic Principles of Conducting I. Emphasizes baton technique, score reading and analysis, and rehearsal procedures. Emphasis on instrumental scores. Required for P-12 certification. Spring. Prerequisite: MUSC 310.

MUSC 411 Marching Band Techniques 2 cr.
The techniques of show planning, preparation, presentation: precision movement, music selection and arranging. Fall. Prerequisite: permission of instructor.

MUSC 413 Vocal Pedagogy 2 cr.
The various schools of vocal technique. Designed to prepare the prospective teacher of private and class voice. Spring. Alternate years. Prerequisites: minimum of 2 yrs. of vocal study and the ability to play simple piano accompaniments.

MUSC 492 Music Management Portfolio 3 cr.
Academic component of internship experience, in conjunction with MUSC 495. Graded A-F. Every semester. Prerequisites: MUSA 287 and MUSA 415; senior standing, concurrent enrollment in MUSC 495 and permission of instructor. Music Management Capstone.

MUSC 495 Internship in Music Management 6-9 cr.
Guided work experience with an academic component. Work must be directly related to academic program. Students may not enroll in other courses without permission. Must be taken concurrently with MUSC 492 Senior Project Paper. Graded P/F. Every semester. Prerequisites: MUSA 287 and MUSA 415; senior standing, concurrent enrollment in MUSC 492 and permission of instructor.

MUSC 499 Individual Research in Music 1-6 cr.
Intensive individual study in an area of special interest under the direction of a faculty member. Repeatable for maximum of 6 credits. Variable. Prerequisites: MUSA 287 and MUSA 415; permission of Department Chair.

Applied Music

MUSA 101 Student Recital Attendance 0.5 cr.
Experience in musical performance and literature through concert attendance. Required for all music majors and minors. Repeatable for credit each semester of enrollment. Every semester.

MUSA 104 Class Piano I 1 cr.
Basics of keyboard technique for students with little or no piano experience. Designed to lead toward successful completion of the piano proficiency examination (MUSA 415). Meets 100 minutes per week. Fall. Prerequisite: permission of instructor; enrollment preference given to music majors/minors.

MUSA 105 Class Piano II 1 cr.
Continuation of MUSA 104. Designed to lead toward successful completion of the piano proficiency examination (MUSA 415). Meets 100 minutes per week. Spring. Prerequisite: MUSA 104 or permission of instructor; enrollment preference given to music majors/minors.

MUSA 106 Class Voice I 1 cr.
Fundamentals of voice production: breath management, resonance and diction. Individual voice diagnosis and application of vocal principles. Vocal exercises and song literature for the development of a singing technique. Meets 100 minutes per week. Variable. Prerequisite: permission of instructor.

MUSA 107 Class Voice II 1 cr.
Continuation of MUSA 106. Meets 100 minutes per week. Variable. Prerequisite: MUSA 106 or permission of instructor.

MUSA 108 Class Instruments I: Strings 1 cr.
Class instruction in the standard string instruments, designed to prepare future instrumental teachers at all levels of the public schools. Meets 100 minutes per week. Fall. Prerequisite: permission of instructor; enrollment preference given to music majors/minors.

MUSA 111 Class Guitar I 1 cr.
Fundamentals of guitar technique for students with little or no guitar or music experience. Music reading, rudiments of theory, melodic playing and accompaniment. Students provide their own instrument. Meets 100 minutes per week. Fall.

MUSA 112 Class Guitar II 1 cr.
For students who read music and have had some previous experience with the guitar. Melodic and accompaniment styles. Meets 100 minutes per week. Spring. Prerequisite: MUSA 111 or permission of instructor.

MUSA 116-123 Private Instruction 1 cr.
Individual instruction in voice, piano, organ, strings, guitar, woodwinds, brass or percussion as a minor performance specialty, 30-minute lesson each week. Repeatable for credit each semester of enrollment. Performance for a faculty jury at the end of each semester in lieu of a final examination. Every semester. Prerequisites: concurrent enrollment in an ensemble (MUSC 315, 319, 327, 329, 330, 331, 335, 336, 337, 339 or 340); permission of instructor; audition required.

MUSA 200 Class Instruments II: Woodwinds 1 cr.
Class instruction in the standard woodwind instruments, designed to prepare future instrumental teachers at all levels of the public schools. Meets 100 minutes per week. Fall. Prerequisite: permission of instructor; enrollment preference given to music majors/minors.

MUSA 209 Class Instruments III: Brass 1 cr.
Class instruction in the standard brass instruments, designed to prepare future instrumental teachers at all levels of the public schools. Meets 100 minutes per week. Spring. Prerequisite: permission of instructor; enrollment preference given to music majors/minors.

MUSC 210 Diction for Singers 2 cr.
Acquaints students with the symbols and sounds of the International Phonetic Alphabet and with the application of the IPA to the English, French, German, Italian, Latin and
Spanish languages. Differences between spoken and sung languages explored and physical processes required to produce the various sounds investigated and practiced. (Required for vocal performance and choral education majors.) Fall.

**MUSA 213 Piano Pedagogy**  2 cr.
A methods and materials course for those preparing for piano studio teaching. Prerequisite: permission of instructor.

**MUSA 286 Sophomore Evaluation — Music Studies**  0 cr.
Sophomore evaluation that demonstrates musical performance and academic ability to continue in the major concentration or track. Perform two or three contrasting works for the music faculty. Required of all music majors. Repeatable only by permission of department chair. P/F only. Every semester. Prerequisites: Permission of instructor; completion of MUSC 205, MUSC 207 and MUSA 415.

**MUSA 287 Sophomore Evaluation — Music Education**  0 cr.
Sophomore review that demonstrates musical performance and academic ability to continue in the major concentration or track. Perform two or three contrasting works for the music faculty. Required of all majoring in music education. Repeatable only by permission of department chair. Graded P/F. Every semester. Prerequisites: permission of instructor; completion of MUSC 205, MUSC 207 and MUSA 415.

**MUSA 288 Sophomore Evaluation — Music Management**  0 cr.
Sophomore evaluation that demonstrates musical performance and academic ability to continue in the major concentration or track. Perform two or three contrasting works for the music faculty. Required of all music majors. Repeatable only by permission of department chair. P/F only. Every semester. Prerequisites: permission of instructor; completion of MUSC 205, MUSC 207 and MUSA 415.

**MUSA 289 Sophomore Evaluation — Music Performance**  0 cr.
Sophomore evaluation that demonstrates musical performance and academic ability to continue in the major concentration or track. Perform two or three contrasting works for the music faculty. Required of all music majors. Repeatable only by permission of department chair. P/F only. Every semester. Prerequisites: permission of instructor; completion of MUSC 205, MUSC 207 and MUSA 415.

**MUSA 311 Class Instruments IV: Percussion**  1 cr.
Class instruction in the standard percussion instruments, designed to prepare future instrumental teachers at all levels of the public schools. Meets 100 minutes per week. Spring. Prerequisite: permission of instructor; enrollment preference given to music majors/minors.

**MUSA 356-363 Private Instruction**  2 cr.
Individual instruction in voice, piano, organ, strings, guitar, woodwinds, brass or percussion as a major performance specialty; 60-minute lesson each week. Music majors are required to perform in at least one student recital. Performance for a faculty jury at the end of each semester in lieu of a final examination. Repeatable for credit each semester of enrollment. Every semester. Prerequisites: concurrent enrollment in an ensemble (MUSC 315, 319, 327, 329, 330, 331, 335, 336, 337, 339 or 340); permission of instructor; audition required.

**MUSA 389 Non-degree Recital**  1 cr.
Preparation and performance of a recital that is not required for the degree being sought. Graded P/F. Every semester. Prerequisites: Permission of department chair. All students must be concurrently enrolled in MUSA 300-level private instruction.

**MUSA 390 Junior Recital**  1 cr.
Junior Recital for the Bachelor of Arts or Science Music Degree. Preparation and performance of the junior recital. Graded P/F. Every semester. Prerequisites: MUSA 287 and MUSA 415, and junior recital clearance. All students must be concurrently enrolled in MUSA 300-level private instruction.

**MUSA 415 Piano Proficiency Exam**  0 cr.
Successful demonstration of functional keyboard skills for Music Teaching Certification, Performance and Music Management majors. Includes technical facility, sight-reading, transposition, improvisation and prepared repertoire. Required for all music majors for admission to upper division courses. Scheduled by appointment. P/F only.

**MUSA 490 Senior Recital**  1 cr.
Senior Recital for the Bachelor of Arts or Science Music Degree. Preparation and performance of the senior recital. Performance majors must also have successfully completed their junior recital (MUSA 390). Graded P/F. Every semester. Prerequisites: MUSA 287 and MUSA 415 and senior recital clearance. Must be concurrently enrolled in MUSA 300-level private instruction. Vocal and Instrumental Performance, Music Teaching Capstone.

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**Ensemble**
Repeatable for credit each semester of enrollment.

**MUSC 315 Piano Ensemble**  1 cr.
Study, rehearsal and performance of piano ensemble literature. Meets 100 minutes per week. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 319 University Chorale**  1 cr.
A select mixed chorus with repertoire from all historical periods. Open to all students. Meets 150 minutes per week. Every semester.

**MUSC 321 Opera Workshop**  1 cr.
Designed to enhance the vocal art by exploring different aspects of performance. The skills covered will culminate in the performance of opera scenes or a complete operatic performance. Meets 150 minutes per week. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 327 Jazz Orchestra**  1 cr.
Performance of the standard jazz repertoire in a big band format. Meets 150 minutes per week. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 329 Marching Band**  1 cr.
Performs at home football games and regional exhibitions. Meets 150 minutes per week. Band camp prior to start of fall semester. Extra rehearsals on Friday and Saturday before home football games. Open to all students. Fall. Prerequisite: permission of instructor; audition required.

**MUSC 330 Wind Ensemble**  1 cr.
Concert literature selected from both contemporary and traditional wind ensemble repertoire. Meets 150 minutes per week. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 331 Brass Ensemble**  1 cr.
Study, rehearsal and performance of brass literature. Meets 100 minutes per week. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 335 String Ensemble**  1 cr.
Study, rehearsal and performance of string literature — principally the string quartet. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 336 Guitar Ensemble**  1 cr.
Study, rehearsal and performance of guitar ensemble literature. Meets 100 minutes per week. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 337 Woodwind Ensemble**  1 cr.
Study, rehearsal and performance of woodwind instrument literature — principally clarinet, flute and saxophone quartets and woodwind quintets. Meets 100 minutes per week. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 339 Percussion Ensemble**  1 cr.
Study, rehearsal and performance of percussion ensemble literature. Meets 150 minutes per week. Every semester. Prerequisite: permission of instructor; audition required.

**MUSC 340 Chamber Choir**  1 cr.
A highly select group of 24-32 singers performing a wide variety of choral literature designed to promote individual musicianship, advanced techniques and quality of ensemble. Significant number of performances each semester, both on and off campus. Meets 150 minutes per week. Every semester. Special instruction fee. Prerequisite: permission of instructor; audition required.

**MUSC 370 Vocal Jazz Ensemble**  1 cr.
A highly select group of 8-12 singers performing vocal jazz literature. Significant number of performances each semester, both on and off campus. Meets 150 minutes per week. Every semester. Special instruction fee. Prerequisite: permission of instructor; audition required.
Nursing

NURS 401 Health Assessment 3 cr.
Comprehensive holistic assessment theory and concepts, inclusive of physical, emotional, cultural, nutritional, spiritual, and social assessment skill sets. Specific skills include, but are not limited to, interviewing and history-taking skills, physical exam skills, and the identification of data-based health problems via integrated lab modules within the course. Spring and summer. Prerequisites: Admission to the RN to BSN program and MATH 109.

NURS 402 Nursing Research and Evidence-Based Practice 3 cr.
Theory and methods of qualitative and quantitative research provide basic knowledge for reading and understanding nursing research. Theory and concepts of evidence-based practice, including formulating a clinical question, identifying sources of evidence, using clinical guidelines, disseminating evidence, and motivating change based on scientific evidence. Every semester. Prerequisites: Admission to the RN to BSN program and MATH 109.

NURS 403 Elements of the Professional Nursing Role 3 cr.
Implementation of the professional nursing role within the rapidly changing healthcare system. Identifying shifting demographic and social trends while maintaining caring and compassionate values. Focuses on concepts such as patient-centered care; interdisciplinary collaboration; elements of safety, quality care; nursing diversity in roles, organizations, and culture; and finally professional identity and image. Every semester. Prerequisite: Admission to the RN to BSN program or permission of Program Coordinator.

NURS 404 Nursing Informatics 3 cr.
Introduction to nursing informatics as it applies to data, information, knowledge, and wisdom within the areas of administration, education, practice, and research. Basic informatics competencies will include day-to-day, safe, quality patient care; interdisciplinary collaboration; decision support systems and use-cases; workflow analysis and implementation; standardized terminologies; and privacy and security issues. Every semester. Prerequisites: Admission to the RN to BSN program; Tech. Fluency.

NURS 405 Ethics in Contemporary Nursing Practice 3 cr.
Application of ethical decision-making in current nursing practice. Critical elements consist of discovery of individual ethical viewpoint and framework including individual biases; principles and legal concepts; and examination of contemporary ethical issues such as genomics, patient and employee rights, healthcare ethics and organizational committees. Every semester. Prerequisite: Admission to the RN to BSN program.

NURS 406 Leadership for Quality and Safety 3 cr.
Examination of leadership skills necessary to understand and develop a culture of quality and safe patient care. Concepts include decision-making, conflict resolution, communication, motivation, organizational structure, resource management, quality improvement processes and instruments, and tools for safeguarding patients. These concepts form the basis for examination of quality improvement approaches, nurse sensitive indicators, and safety principles, in addition to national quality and safety initiatives. Summer and fall. Prerequisites: Admission to the RN to BSN program; prerequisite or co-requisite: MGMT 356.

NURS 407 Health Finance 3 cr.
Conceptual and practical issues related to health care economics, finances and budgeting, including accounting, business planning, cost/benefit analysis, managing financial resources and other management tools for the nurse administrator. Spring.

NURS 490 Special Topics in Nursing 1-6 cr.
Exploration of specialized topics in nursing. Topics vary from semester to semester. Repeatable for a maximum of 6 credits if topics are substantially different. Every semester. Prerequisites: Admission to the RN-BSN Program and permission of Program Coordinator.

NURS 491 Population-Focused Nursing Practice 3 cr.
Introduction to the role of the professional nurse in promoting health and preventing disease in the community health setting. Epidemiological, sociological and environmental concepts examined with a focus on the health status of aggregates. The course consists of a community health assessment analysis in theory and presentation, case studies and examinations. 3 hrs. lecture. Every semester. Prerequisites: Admission to the RN to BSN program and Program Coordinator permission; corequisite NURS 495.

NURS 495 Population-Focused Nursing Practice Practicum 3 cr.
Experiential component of practicum. Students will prepare a proposal for a community health nursing clinical experience and work directly with a preceptor upon approval of the instructor and program coordinator. 135 hours of Clinical Experience: an average of 9 hours in the clinical experience each week. Every semester. Graded P/F. Prerequisites: Admission to the RN to BSN program and Program Coordinator permission; corequisite NURS 491.

NURS 496 Capstone Project 2 cr.
Represents the synthesis of theoretical and clinical knowledge and skills for the professional baccalaureate-prepared nurse. Focuses on critical thinking, professional collaboration and community engagement in the planning and implementation of a project designed to meet an identified health need. Every semester. Prerequisites: Admission to the RN-BSN Program and permission of the Program Coordinator; prerequisites NURS 401, 402, 403, 404, 405, 406, 491 and 495; corequisites NURS 491 and 495.

NURS 499 Independent Study 1-6 cr.
Independent study of specialized problems in nursing. Problems vary from semester to semester. Repeatable for a maximum of 6 credits if problems are substantially different. Every semester. Prerequisites: Admission to the RN-BSN Program and permission of Program Coordinator.

Orientation

ORIE 101 Introduction to Higher Education 1 cr.
Orientation of incoming students to academic and social contexts of college life. Nature and process of higher education; educational and career planning; learning skills; support services. Required of all first-time students, including transfer students with fewer than 13 semester hours of transfer credit. Students may not withdraw from the course unless they are withdrawing from the University.

Philosophy

PHIL 101 Introduction to Philosophy 3 cr.
Philosophical approaches to three major content areas: personal relationships (e.g., friendship), social-political structures (e.g., democracy), worldviews (e.g., the problem of God). Every semester. GEP Group B.

PHIL 102 Contemporary Ethical Problems 3 cr.
Ethical issues such as abortion, euthanasia and physician-assisted suicide, the death penalty, censorship of pornography and hate speech, sex and marriage, social and economic justice, world hunger and global poverty, the environment and the treatment of animals. Every semester. GEP Group B.

PHIL 111 Honors: Introduction to Philosophy 3 cr.
Philosophical problems such as the meaning of existence, freedom and determinism, body versus mind, the existence of God, the human person and human relationships. Credit cannot be earned for both PHIL 101 and PHIL 111. Variable. Prerequisite: acceptance into Honors Program or permission of instructor. GEP Group B.

PHIL 112 Honors: Contemporary Ethical Problems 3 cr.
Contemporary ethical issues such as abortion, euthanasia and physician-assisted suicide, the death penalty, censorship of pornography and hate speech, sex and marriage, social and economic justice, world hunger and global poverty, the environment and the treatment of animals. Credit cannot be earned for both PHIL 102 and PHIL 112. Variable. Prerequisite: acceptance into Honors Program or permission of instructor. GEP Group B.

PHIL 201 Ethics 3 cr.
Ethical theories or selected problems in moral philosophy (e.g., relativism versus absolutism, the nature of value judgments). Variable.

PHIL 202 History of Philosophy: Ancient and Medieval 3 cr.
Classical western philosophy from the early Greeks to the Renaissance. Emphasis on Pre-Socratics, Plato, Aristotle, Augustine and Aquinas. Fall.
PHIL 203 History of Modern Philosophy 3 cr.
Western philosophy in the modern period; the rationalist tradition (Descartes, Spinoza, Leibniz) and the empiricist tradition (Locke, Berkeley, Hume); some reference to Kant. Spring.

PHIL 205 Logic 3 cr.
A study of the forms of reasoning: inductive, deductive; fallacies. Variable.

PHIL 302 Philosophy of Religion 3 cr.
A study of religious experience, religious language, and the question of a rational basis for religious belief. Variable. Recommended: 3 cr. in philosophy.

PHIL 303 Philosophy of Art 3 cr.
Analysis of the nature of art and its creation, appreciation, and criticism; the major theories of art. Variable. Recommended: 3 cr. in philosophy.

PHIL 304 Social Philosophy 3 cr.
Issues arising out of the relationship between individuals and society. Themes such as social values, law, and the ideal of justice. Fall. Recommended: 3 cr. in philosophy.

PHIL 305 Criminal Justice Ethics 3 cr.
Ethical issues confronting the criminal justice system and its occupational players—criminalization, policing, courts and corrections. Fall. Recommended: 3 cr. in philosophy.

PHIL 306 Science on Trial 3 cr.
A study of the logical structure of the natural sciences. Topics such as the nature of scientific evidence, scientific explanation and the objectivity of scientific knowledge. Variable. Recommended: 3 cr. in philosophy.

PHIL 308 Political Philosophy 3 cr.
Issues arising out of the relationship between individuals and the state. Issues associated with the ongoing transformation of national states and the relationship between the states, international finance and the global community. Themes such as power, authority, democracy, law, rights, political ideologies, globalization and terrorism. Variable. Recommended: 3 cr. in philosophy.

PHIL 311 Asian and African Philosophy 3 cr.
A study of the major concepts of Indian philosophy with an emphasis on Hinduism and Buddhism, Chinese philosophy with an emphasis on Confucianism and Taoism, and African philosophy with an emphasis on the community orientation of ethics and philosophical anthropology. Variable. Recommended: 3 cr. in philosophy. GEP Group F.

PHIL 313 Biomedical Ethics 3 cr.
Ethical issues in medicine and biomedical research. Such problem areas as the physician/patient relationship, patients’ rights and professionals’ obligations, human experimentation, genetics and reproductive technologies, and social justice and health care. Spring. Recommended: 3 cr. in philosophy.

PHIL 314 Business Ethics 3 cr.
Ethical issues in business. Such problem areas as the morality of capitalism, the social responsibility of business, the concept of corporate responsibility, business and the environment, the rights and responsibilities of employees, whistleblowing, the ethics of advertising, multinational corporations, feminist and minority concerns about business. Variable. Recommended: 3 cr. in philosophy.

PHIL 315 Philosophy and the Environment 3 cr.
A philosophical investigation of environmental issues. Anthropocentric, ecocentric, individualist and ecofeminist approaches to the environment as well as perspectives from many cultures and religions. Connections between environmental science, ethics and aesthetics in a historical context will be made. Variable. Recommended: 3 cr. in philosophy.

PHIL 316 The Meaning of Life 3 cr.
Issues concerning the meaning of life. Such issues as the various meanings of the phrase “the meaning of life,” the dependence of a meaningful life on the existence of God and/or an afterlife, the absurdity of life and how life ought to be lived. Variable. Recommended: 3 cr. in philosophy.

PHIL 318 Skepticism & Knowledge 3 cr.
Investigation of fundamental issues concerning our ability to come to know the true nature of the world and the relation between our cognitive faculties and this world. Consideration not only of traditional answers from historical and contemporary authors, but also recent work challenging the traditional approach itself, including work in feminist epistemology and non-objectivist conceptions of knowledge. Variable. Recommended: 3 cr. in philosophy.

PHIL 319: Philosophy of Existentialism 3 cr.
Origins of existential thought in Kierkegaard and its subsequent development in Heidegger, Jaspers, Marcel, Sartre, Merleau-Ponty and Ricoeur. Such concepts as existence, historicity, freedom and consciousness. Variable. Recommended: 3 cr. in philosophy.

PHIL 409 Philosophy and Women 3 cr.
Topics will include philosophical views of and by women, an examination of the extent to which gender related values underlie and permeate philosophical method and theory, and an examination of ways in which gender interrelates with other social categories such as race, ethnicity and class. Variable. Recommended: 3 cr. in philosophy or WMST 201. GEP Group F.

PHIL 410 Philosophy of Law 3 cr.
Leading issues in the philosophy of law. Such topics as the nature of law and its relation to morality, the concept of responsibility and the justification of punishment. Highly recommended for those interested in the theory of legal concepts and legal reasoning. Spring. Recommended: 3 cr. in philosophy.

PHIL 452 Seminar in Contemporary Metaphysics 3 cr.
Contemporary approaches to problems in both special and general metaphysics. Problems in special metaphysics such as free will, personal identity, mind-body and immortality. Problems in general metaphysics such as universals, substance, change and time. Credit cannot be earned for both PHIL 452 and PHIL 412. Variable. Prerequisite: 15 cr. in philosophy or permission of instructor. Capstone.

PHIL 455 Seminar in Philosophy 3 cr.
An in-depth exploration in a seminar format of some area or philosophy of some philosophical problem or topic selected by the instructor. Repeatable for maximum of 6 credits if topics are substantially different. Variable. Prerequisite: 15 cr. in philosophy or permission of instructor. Capstone.

PHIL 490 Special Topics in Philosophy 3 cr.
In-depth analysis of a topic, selected by instructor, for development thematically or historically. Repeatable for maximum of 6 credits if topics are substantially different. Variable. Recommended: 3 cr. in philosophy.

PHIL 492 Internship Project in Philosophy 3 cr.
Academic component of internship experience; co-registration in PHIL 495 required. Mainly planning of the field experience, focusing on the philosophical/ethical issues associated with the work situation, and completion of a written report on the field experience. Graded A through F. Internship is optional and credit is not applicable toward the major or minor. Every semester and summer. Prerequisites: junior or senior status, major in philosophy, and permission of department.

PHIL 495 Internship in Philosophy 6-12 cr.
Guided work experience; co-registration in PHIL 492 required. Directly related to academic program and intended to enhance the student’s ability to navigate her/his way into the global workplace. Graded P/F. Internship is optional and credit is not applicable toward the major or minor. Every semester and summer. Prerequisites: junior or senior status, major in philosophy, and permission of department.

PHIL 499 Individual Research in Philosophy 1 to 6 cr.
Independent study of a philosopher, period, movement, or problem, initiated by student in consultation with instructor. Repeatable for maximum of 6 credits. Variable. Prerequisites: 12 cr. in philosophy and permission of instructor.
PHYSICAL EDUCATION

PHEC 115 Methods of Group Exercise Instruction 3 cr.
Leadership and technical skills for safe and effective group exercise programs. Every semester.

PHEC 124 Basketball 1 cr.
Fundamental skills of basketball. Every semester.

PHEC 126 Soccer 1 cr.
Fundamental skills of soccer. Spring.

PHEC 129 Tennis 1 cr.
Fundamental skills of tennis. Spring, odd-numbered years.

PHEC 164 Teaching of Physical Education Through Outdoor Adventure Education 1 cr.
Fundamental skills of rock climbing, canoeing, backpacking, cycling and in-line skating. Every semester. Prerequisite: HPED 103 or PHEC 170.

PHEC 165 Teaching of Physical Education Through Cooperative Team Challenges 1 cr.
Fundamental skills of cooperative and initiative activities. Every semester. Prerequisite: HPED 103 or PHEC 170.

PHEC 166 Teaching of Physical Education Through Game and Activity Skills 1 cr.
Fundamental skills of game and activity, team play and strategy. Every semester. Prerequisite: HPED 103 or PHEC 170.

PHEC 167 Teaching of Physical Education Through Educational Gymnastics 1 cr.
Fundamental skills of educational gymnastics. Every semester. Prerequisite: HPED 103 or PHEC 170.

PHEC 168 Teaching of Physical Education Through Dance Forms 1 cr.
Fundamental skills of dance. Every semester. Prerequisite: HPED 103 or PHEC 170.

PHEC 169 Teaching of Physical Education Through Health Fitness 1 cr.
Fundamental skills of health fitness. Every semester. Prerequisite: HPED 103 or PHEC 170.

PHEC 170 Physical Education Teaching Lab 1 cr.
Lesson plan components for physical education. Foundational knowledge for TOPE program. Prerequisite: Transfer students entering with credit for HPED 103 or permission of instructor only.

PHEC 175 Foundations of Resistance Training 1 cr.
An introduction to resistance training program design. Emphasis will be on proper exercise technique and functional progressions for a variety of body areas. Every semester.

PHEC 230 Golf 1 cr.
Fundamental skills of golf. Spring, odd-numbered years.

PHEC 250 Beginning Swimming 1 cr.
Basic swimming skills and water safety. Open to beginning swimmers only. Fall.

PHEC 251 Intermediate Swimming 1 cr.
Swimming strokes and aquatic skills required for qualification as a good swimmer. Spring.

PHEC 303 Biomechanics for Exercise and Sport Science 3 cr.
Mechanics of human motion — muscles and joints. Application of mechanical principles to the study of human movement in exercise and daily life. Biomechanical relationships in the upper and lower extremities, and the vertebral column. May not be taken by students who have credit for PHEC 301. Every semester. Prerequisite: BIOL 321.

PHEC 309 Health and Physical Education for the Elementary Classroom Teacher 3 cr.
Developmentally appropriate content, skills and activities in health and physical education. Primary emphasis on regular classroom teacher role. For early childhood and elementary education majors. Students required to earn CPR certification outside regular class hours. Every semester, summer. Prerequisite: EDUC 100 or concurrent with EDUC 335.

PHEC 310 Organization and Administration of Health and Physical Education 3 cr.
Non-instructional aspects of the health and physical education program. Classroom management and discipline, budgets and equipment inventory, legal considerations, program advocacy and the role of physical education in society. Spring. Prerequisite: health and physical education majors only.

PHEC 341 Psychology of Physical Activity 3 cr.
Concepts related to psychology and physical activity. Theory-to-practice approach on how social psychological variables influence motor behavior and how physical activity affects the psychological make up of the individual. Spring. Prerequisite: Psychology 150.

PHEC 350 Red Cross Lifeguarding 1 cr.
Red Cross lifeguarding techniques. Three periods per week. Every semester. Prerequisite: ability to swim a quarter mile.

PHEC 351 Water Safety Instruction 2 cr.
Course is designed to certify instructor candidates to teach water safety and swimming courses. Three periods per week. Every semester. Prerequisite: Life Saving certificate.

PHEC 360 Theory of Track and Field 3 cr.
Concepts, advanced strategies and organization and administration of a track and field program. Fall, odd-numbered years.

PHEC 361 Theory of Football 3 cr.
Concepts, advanced strategies, and organization and administration of a football program. Spring, odd-numbered years.

PHEC 362 Theory of Baseball 3 cr.
Concepts, advanced strategies and organization and administration of a baseball program. Spring, odd-numbered years.

PHEC 364 Theory of Basketball 3 cr.
Concepts, advanced strategies and organization and administration of a basketball program. Fall, even-numbered years.

PHEC 365 Theory of Volleyball 3 cr.
Concepts, advanced strategies and organization and administration of a volleyball program. Spring, even-numbered years.

PHEC 366 Theory of Soccer 3 cr.
Concepts, advanced strategies, and organization and administration of a soccer program. Spring, even-numbered years.

PHEC 369 Theory of Softball 3 cr.
Concepts, advanced strategy and organization and administration of a softball program. Fall, even-numbered years.

PHEC 401 Physiology of Exercise 3 cr.
Exercise and the circulatory, respiratory and nervous systems; efficiency of muscular work; fatigue; age, sex and body type. May not be taken by students who have credit for PHEC 406. Every semester. Prerequisite: BIOL 322.

PHEC 405 Psycho-Social Foundations of Sport 3 cr.
Study of human behavior during participation in sport; role of sport in society; psychological characteristics of sport performers; people and organizations who control sport. Variable.

PHEC 410 Advanced Strength Training 3 cr.
The study of the principles and practices of advanced strength training. Emphasis on the practical application of this knowledge to both athletic performance and a health/wellness setting. Every semester. Prerequisites: PHEC 175 and PHEC 303.

PHEC 411 Evaluation and Prescription in Fitness 3 cr.
In-depth examination of evaluation of and components applicable to the development of exercise programs. Every semester. Prerequisite: PHEC 401.

PHEC 412 Principles of Coaching 3 cr.
Introduces students to learning about coaching education and the responsibilities of the coach. Spring, odd-numbered years.
PHEC 413 Rehabilitation Techniques in Sport Medicine 3 cr.
Various aspects of the rehabilitation process for the physically active or athletic population. Goals, techniques, evaluation methods and specific rehabilitation programs covered. Fall. Prerequisite: HEED 319.

PHEC 415 The Black Athlete in American Society 3 cr.
A study of African-American involvement in sport from slavery to the present, investigating the people, events and conditions which affected sport in both the black society and the American society at large. Variable.

PHEC 420 Sport Law and Ethics 3 cr.
Legal implications of tort and liability law for coaches; case studies in sport ethics, fair play and morality in sport; athletic eligibility and gender equity. Variable.

PHEC 435 Lifespan Health and Fitness 3 cr.
An examination of factors that influence health and fitness across the lifespan including methods, services and resources to access and optimize the health and fitness of individuals and cohorts. Every semester.

PHEC 450 Aquatics and Pool Management 3 cr.
Advanced course in teaching, supervising all levels of swimming and diving instruction, and training competitive swimmers. Administration of swimming pools; staff, program, budget, facilities, safety, pool sanitation. Spring.

PHEC 480 Field Experience in Athletic Training 1 to 6 cr.
Field experience in athletic training. Sites of study may vary. Offered as needed. Repeatable for maximum of 6 credits if placement sites are different.

PHEC 481 Field Experience in Coaching 1 to 6 cr.
Field experience in coaching. Sites of study may vary. Offered as needed. Repeatable for maximum of 6 credits if placement sites are different.

PHEC 482 Field Experience in Health Fitness 1 to 6 cr.
Field experience in health fitness. Sites of study may vary. Offered as needed. Repeatable for maximum of 6 credits if placement sites are different.

PHEC 490 Special Topics in Health and Physical Education 1 to 6 cr.
The special topics course allows for unique or distinctive study such as clinics, workshops or course work dealing with a current topic related to health and physical education. It is arranged on a needs basis. Repeatable for maximum of 6 credits if topics are substantially different.

PHEC 492 Seminar in Health Fitness 3 cr.
A separately graded component of the Health Fitness Internship, required in conjunction with PHEC 495. This course will address worksite issues encountered during the internship experience. Every semester.

PHEC 495 Internship in Health Fitness 9 cr.
Special work experiences related to the health fitness academic program. Full-time students must register for a minimum of 9 credit hours of internship. Graded P/F. Prerequisites: Completion of 90 credit hours or more with a C or better in the major and senior status. Exercise and Sport Science Capstone.

PHEC 497 Teaching Internship: K-12 Programs 12 cr.
Supervised practicum in teaching in elementary and secondary schools. Joint supervision by school system and University personnel. Daily, full day for one semester. Graded P/F. Every semester. Prerequisite: Phase III admission or permission of Department Chair.

PHEC 498 Readings in Health and Physical Education 1 to 4 cr.
Intensive reading on selected topic. Every semester. Repeatable for maximum of 4 credits if topics are substantially different. Prerequisites: major or minor in HPE or Exercise and Sport Science and permission of instructor.

PHEC 499 Individual Problems in Health and Phys. Ed. 1 to 4 cr.
Individual activity requiring submission of a final paper or completed project. Every semester. Repeatable for maximum of 4 credits if topics are substantially different. Prerequisites: major or minor in HPE or Exercise and Sport Science and permission of instructor.

### Physics

**Physical Science**

**PHSC 100 Cosmic Concepts** 3 cr.
A descriptive approach to the major physical concepts developed over the past four centuries and their relationship to the historical and philosophical context in which they arose. Emphasis will be on the origin, meaning, significance, and limitations of these concepts. Every semester. PHSC 100 AND PHSC 101 required for GEP Group C.

**PHSC 101 Measurement** 1 cr.
A laboratory experience in observation, measurement, graphical analysis, and discovery in Physical Science. Designed for non-science majors. One two-hour laboratory per week. Every semester. Prerequisite or corequisite: PHSC 100. GEP Group C.

**PHSC 201 Physical Science I** 3 cr.
Physical phenomena and their role in modern society: the basic concepts of classical physics and their application. Students weak in mathematics should take MATH 104 before enrolling. Variable.

**PHSC 202 Physical Science II** 3 cr.
Continuation of Physical Science I with emphasis on the basic concepts of modern physics and chemistry. Students weak in mathematics should take MATH 104 before enrolling. Variable. Prerequisite: PHSC 201.

**PHSC 203 Physical Science** 4 cr.
Physical phenomena and their role in modern society: basic concepts of physics, chemistry, and astronomy, with energy and environment as the unifying theme. Three hrs. lecture and 3 hrs. lab. Every semester. Intended for education majors. GEP Group C.

**PHSC 205 Descriptive Meteorology** 3 cr.
Aspects of the atmosphere, weather variables, radiation, clean and dirty air, clouds and precipitation, atmospheric electricity, and weather forecast and modification. Field work included. Also offered as GEOG 205. Variable.

**PHSC 210 Descriptive Astronomy** 3 cr.
Aspects of the sky, the history and early development of astronomy, the solar system, stars, galaxies, cosmology, life beyond the earth, and current topics in astronomy. Lectures, planetarium demonstrations, and field work. Fall.

**PHSC 211 Descriptive Astronomy Laboratory** 1 cr.
Introductory lab course of sky observing with the unaided eye and simple instruments: outdoor daytime observing and the planetarium simulation of the night sky. Designed for the non-science major. One 2-hr. lab per week. Variable. Corequisite or prerequisite: PHSC 210.

**PHSC 220 The Solar System** 3 cr.
Solar and planetary discoveries since 1971, as revealed by NASA space probes. The solar atmosphere and the planets’ magnetic fields; atmospheres and surfaces of the terrestrial planets; rings and atmospheres of the giant planets; major satellites; and the origin of the solar system. Variable. Prerequisite: PHSC 210.

**PHSC 230 The Search for Life Beyond Earth** 3 cr.
General survey of conditions across the universe; nature and probable origin of terrestrial life; possibilities of life for the other planets in our solar system; and the likelihood and techniques of contacting or communicating with intelligences beyond our solar system. Variable.

**PHSC 240 Descriptive Acoustics of Music and Hi-Fidelity** 3 cr.
Introductory acoustics course. The physical principles underlying the production, perception, and reproduction of music. Variable.

**PHSC 290 Selected Topics in Physical Science** 3 cr.
A selected topic of current interest in physical science. Repeatable for maximum of 6 credits if topics are substantially different. Variable.

**PHSC 315 Digital Electronics** 4 cr.
A lab-oriented course with emphasis on computer applications, including registers, counters, interfacing, and arithmetic circuits. Three hrs. lecture and 3 hrs. lab. Variable. Prerequisite: COSC 100.
PHYSICS

PHSC 444 Metaphysics and Modern Physics 3 cr.

Physics

PHYS 215 General Physics I 4 cr.
Non-calculus introduction to the theoretical and experimental foundations of physics, topics to include mechanics and heat, the fundamental concepts, principles, and laws of physics. Three hrs. lecture and 3 hrs. lab. Either an introduction to the field for prospective majors or a self-contained survey for others. Fall. A familiarity with high school mathematics including algebra and geometry is assumed. GEP Group C.

PHYS 216 General Physics II 4 cr.
A continuation of PHYS 215. Non-calculus introduction, topics to include electricity, magnetism, and light. The fundamental concepts, principles, and laws of physics. Three hrs. lecture and 3 hrs. lab. Spring. Prerequisite: PHYS 215.

PHYS 261 Principles of Physics I: Mechanics 4 cr.
Calculus-based introduction to the theoretical and experimental foundations of physics focusing on mechanics. Topics to include kinematics, dynamics, energy, momentum, rotational dynamics, and continuum mechanics. Intended primarily for physical science, engineering and math majors. Six hours of integrated lecture/lab/discussion per week. Fall. Corequisite: MATH 120. GEP Group C.

PHYS 262 Principles of Physics II: Electricity and Magnetism 4 cr.
Calculus-based introduction to the theoretical and experimental foundations of physics focusing on Electricity and Magnetism. Topics to include electrostatics, electromagnetic induction and Maxwell's equations. Six hours of integrated lecture/lab/discussion per week. Spring. Prerequisite: PHYS 261. Corequisite: MATH 237.

PHYS 263 Principles of Physics III: Sound & Light 4 cr.
Calculus-based introduction to the theoretical and experimental foundations of physics focusing on sound and light. Topics to include vibration, wave motion, acoustics, geometrical optics, physical optics, and special relativity. Six hours of integrated lecture/lab/discussion per week. Fall. Prerequisite: PHYS 262. Corequisite: MATH 237.

PHYS 264 Principles of Physics IV: Thermodynamics & Modern Physics 4 cr.
Calculus-based introduction to the theoretical and experimental foundations of physics focusing on thermodynamics and modern physics. Topics to include heat, thermodynamics, kinetic theory, atomic physics, and quantum physics. Six hours of integrated lecture/lab/discussion per week. Spring. Prerequisite: PHYS 263.

PHYS 282 Thermodynamics 3 cr.
Introduction to thermodynamics. Thermodynamic properties of matter. Three laws of thermodynamics, cycles, reactions, mixtures. Fall, odd-numbered years. Also offered as ENME 232. Prerequisites: PHYS 261 and 262.

PHYS 300 Introductory Astrophysics 3 cr.
Application of physics and mathematics to astrophysics. Celestial mechanics, stellar structure, and stellar evolution. Fall, even-numbered years. Prerequisites: PHYS 216 or PHYS 262, and MATH 237, or permission of instructor.

PHYS 310 Classical Mechanics 4 cr.

PHYS 311 Thermodynamics 3 cr.
Introduction to thermodynamics. Thermodynamic properties of matter. Three laws of thermodynamics, cycles, reactions, mixtures. Not open to students who have received credit for former PHYS 282 or ENME 232. Fall, even-numbered years. Prerequisite: PHYS 264.

PHYS 312 Electricity and Magnetism 4 cr.

PHYS 313 Optics 3 cr.
The nature and propagation of light, including reflection, refraction, diffraction, coherence, and interference, treated from the point of view of electromagnetic theory. Introduction to quantum optics. Spring, odd-numbered years. Prerequisite: PHYS 263.

PHYS 320 Experimental Physics 2 cr.
Application of contemporary methods and instruments to the experimental observation and measurement of classical and modern physical phenomena. Experiments chosen from mechanisms, heat, thermodynamics, acoustics, electricity, magnetism, optics, and modern physics. Two 3-hr. labs. Fall. Prerequisite: PHYS 264.

PHYS 331 Analog Electronics 4 cr.
Basic principles of modern electronic devices, including DC and AC circuit analysis, diodes and power supplies, amplifier characteristics, op amps, transistors and transistor amplifiers, waveform generators. Six hours integrated lecture and lab. Not open to students with credit for PHYS 316. Fall. Prerequisites: PHYS 216 or PHYS 262, MATH 236, or permission of instructor.

PHYS 332 Digital Electronics 4 cr.
Basic principles of digital electronic devices, including TTL and CMOS logic families, gates, flip-flops, counters, registers, memory devices, displays, D to A and A to D converters, digital instruments, elementary computer interfacing techniques. Six hours integrated lecture and lab. Spring. Prerequisite: PHYS 331.

PHYS 335: Energy Generation & Conservation 3 cr.
A quantitative introduction to present energy fuels, energy generation, renewable energy sources, the consequences to the environment and global prospects for the next few decades. Variable. Prerequisite: MATH 236.

PHYS 340 Audio Engineering 3 cr.
Basic principles of audio engineering including acoustics, electroacoustic devices, electronic components for audio-engineering, audio measurements, audio electronic circuits and equipment, and audio recording and playback. Includes elements of both analog and digital audio. Two hrs. lecture, 2 hrs. lab. Fall, even-numbered years. Prerequisites: PHYS 263 and MATH 237 or permission of the instructor.

PHYS 350 Practical Solar Energy 4 cr.
Introduction to the principles of solar energy and how to install actual systems. Three hrs. lecture and 2 hrs. lab. Variable. Not open to students who have credit for former PHSC 350. Corequisite: PHYS 263.

PHYS 410 Theoretical Mechanics 3 cr.
Lagrangian and Hamiltonian formulation of mechanics with applications, the theory of small oscillations, the theory of wave motion in solids, reflection of waves, and mechanics of continuous fluids. Variable. Prerequisites: PHYS 310 and MATH 432.

PHYS 412 Theoretical Electromagnetism 3 cr.
Theory of the magnetic properties of matter, Maxwell's equations with applications to wave propagation in isotropic and anisotropic media, scattering of electromagnetic waves, physics of the plasma state, fields and radiation from moving charges. Variable. Prerequisites: PHYS 312 and MATH 432.

PHYS 415 Computer Interfacing 3 cr.
Basic digital computer interfacing, combining digital electronics, programming, and computer architecture. Topics include transducers, electronic amplification, D/A and A/D conversion, data sampling, data storage and retrieval, laboratory exercises in discrete and integrated software, survey of commercially available interface devices. Two hrs. lecture and three hrs. lab. Variable. Prerequisites: COSC 240, PHYS 216 or PHYS 262, and PHSC 315 or PHYS 332 or permission of instructor. Also offered as COSC 415.

PHYS 417 Quantum Physics 3 cr.
The breakdown of classical mechanics and the development of quantum theory, the foundations of the Schroedinger Equation, the uncertainty principle, quantum systems in one dimension, angular momentum, spin, and atomic physics. Fall, odd-numbered years. Prerequisite: PHYS 264. Corequisite: MATH 432.
PHYS 420 Introduction to Computational Physics 3 cr.
Introduction to the methods of computational physics. Explores some of the basic techniques and ideas used to solve physics problems with the aid of computers. Students develop computer programs in a high-level programming language to solve specific problems. Topics include examples from several fields of engineering such as mechanics, heat transfer, fluid dynamics, electricity and acoustics. Variable. Prerequisites: PHYS 310, MATH 238, and ENEE 114 or COSC 240 or permission of department.

PHYS 436 Mathematical Physics 3 cr.
Topics in mathematical methods: finite differences, Fourier series, partial differential equations, complex variables, and conformal mapping with physical applications. Spring. Prerequisites: MATH 432 and PHYS 216 or PHYS 262, or permission of instructor.

PHYS 440 Acoustics 3 cr.
Introduction to the theory of wave motions. Production, properties, measurements, and applications of sonic and ultrasonic waves. Spring, even-numbered years. Prerequisite: PHYS 263.

PHYS 490 Special Topics 1-3 cr.
Study at the senior level of one of the fields or recent developments of contemporary physics, such as ultrasonics, musical acoustics, atmospheric physics, astrophysics, or radiation physics. Repeatable for maximum of 6 credits if topics are substantially different. Variable. Prerequisite: permission of instructor.

PHYS 491 Seminar 2 cr.
Individual reports and group discussions on current topics. Subject matter selected jointly by student and instructor. Preparation of proposal for a research project. Review of basic concepts in mechanics, electrodynamics, thermodynamics, and atomic physics. Repeatable 1 time for credit. Fall. For physics majors with junior or senior standing. May be repeated once for credit.

PHYS 492 Senior Research & Seminar 2 cr.
Under the direction of a faculty member, students engage in independent research. Research culminates in a paper and formal public seminar. Repeatable 1 time for credit. Spring. Prerequisite: PHYS 491 or permission of instructor. Capstone.

PHYS 499 Special Projects 2-4 cr.
Advanced lab projects for the superior student. Project chosen by the student in consultation with a member of the Department; may be a theoretical problem. Independent search of the pertinent literature, formulation of the experimental method, conducting the investigation, and the preparation of a report. Repeatable for maximum of 8 credits. Variable. Prerequisite: permission of Chair of Department.

Political Science

POSC 110 Introduction to American Politics 3 cr.
Interaction of the public and government in making American public policy. Processes and institutions of American national government; political parties and elections; public opinion and media; constitutional, legal, and cultural context. Every semester. GEP Group D.

POSC 112 Honors Introduction to American Politics 3 cr.
Accelerated study of the politics of a democratic society in a constitutional, legal, and cultural context. Major institutions (Congress, president, courts, bureaucracies) of U.S. national government; political behavior of the public. Computer-based data analysis; prior computer experience not necessary. Credit cannot be earned for both POSC 110 and POSC 112. Variable. Prerequisite: acceptance into the Honors Program or permission of the instructor. GEP Group D.

POSC 113 Introduction to World Politics 3 cr.
Exploration of the major issues in world politics including evolution of the international system, political actors in world politics, patterns of conflict and cooperation, power, nationalism, international political economy, and international organizations. Every semester. GEP Group D.

POSC 114 Honors Introduction to World Politics 3 cr.
Accelerated study of major issues in world politics including evolution of the international system, political actors in world politics, patterns of conflict and cooperation, power, nationalism, international political economy, and international organizations. Credit cannot be earned for both POSC 113 and POSC 114. Fall. Prerequisite: Acceptance into the Honors Program or permission of the instructor. GEP Group D.

POSC 131 Introduction to Comparative Politics 3 cr.
Comparative analysis of representative political systems including; the effect of legal, institutional and social structures on policy; interaction of domestic politics and the global system. Every semester. GEP Group D or Group F.

POSC 250 Research Methods 3 cr.
Development of the analytical skills necessary to evaluate political research and political phenomena including formulating and assessing research questions, measuring concepts, finding appropriate evidence, and evaluating existing literature. Take before enrolling in 300 or 400 level departmental courses. Every Semester. Not open to students who have credit for former POSC 311. Prerequisites: POSC 110/112 or POSC 113/114 or permission of instructor.

POSC 321 American State and Local Politics 3 cr.
Local, county, and state governments in the U.S., with emphasis on Maryland. Role of states in the federal system. Every semester. Prerequisite: POSC 110/112 or permission of instructor.

POSC 330 Politics of Africa 3 cr.
Examination of the economic and political development of modern African states. Topics include the impact of colonization, theories of development, theories of integration into the contemporary global economic system and the process of state building. The focus will be on selected countries as case studies. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 331 Politics of Latin America 3 cr.
Examination of the development of political and economic systems in Latin America. Topics include the effects of colonization, the application of theories of development, approaches to integration into the contemporary global economic system and patterns of state building. The focus will be on selected countries as case studies. Variable. Prerequisite: POSC 110/114 or POSC 131; POSC 131 preferred.

POSC 332 Politics of Middle East 3 cr.
Examination of political and economic development of modern Middle Eastern states. Topics include the impact of colonization, approaches to development and modernization, integration into the world economy, regional politics of inclusion and global exclusion. The focus will be on selected countries as case studies. Variable. Prerequisite: POSC 113/114 or POSC 131; POSC 131 preferred.

POSC 333 Politics of Europe 3 cr.
Examination of the structures of governments, ideologies, policies, and contemporary issues and problems facing the states of Europe and the European Union. Spring. Prerequisite: POSC 113/114 or POSC 131; POSC 131 preferred. Students who previously received credit for POSC 333 cannot receive credit for this course.

POSC 336 The Politics of Food 3 cr.
Comparative analysis of government policies concerning the production and regulation of food, the use of food as a weapon, a commodity, and statement of political values. The globalization of food and its impacts on state policies and the role of governmental and non-governmental actors on global food security. Spring. Prerequisite: POSC 113/114 or POSC 131.
POLITICAL SCIENCE

POSC 341 International Organization 3 cr.
Structure and activities of international organizations as mechanisms of foreign policy and international and transnational cooperation. Security concerns; international political economy; economic development and integration; human rights. Spring. Prerequisite: POSC 113/114 or POSC 131.

POSC 342 Foreign Policy of the United States 3 cr.
Formulation and conduct of U.S. foreign policy; key agencies, inter-branch relations; decision-making models. Societal and international influences on U.S. foreign policy behavior. Fall. Prerequisite: POSC 113/114 or POSC 131.

POSC 352 Interest Groups 3 cr.
Organization and activities of modern interest groups; impact of interest groups on public policy. Interest group formation, recruitment of members, internal organization, role in election campaigns, lobbying. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 355 Public Budgeting 3 cr.
Examination of the role that budgeting plays in state, local and national level politics. Investigation of current prevailing and relevant historical techniques of budgeting. Exploration of current issues involving the interplay of politics and budgeting. Variable. Prerequisite: POSC 110/112 or permission of the instructor.

POSC 358 American Public Policy 3 cr.
Application of analytical tools to American public policy areas. Comparison of strengths and weaknesses of markets and governments; techniques for framing policy questions; exploration of currently policy areas through simulations and analysis. Not open to students who have credit for former POSC 458. Every year. Prerequisite: POSC 110/112 or permission of instructor.

POSC 361 Public Opinion and Political Behavior 3 cr.
How the ordinary citizen relates to politics, particularly in the U.S. Positions on basic issues; polls and surveys; formation of attitudes; ideology; participation and voting; propaganda and the media; public impact on government policy. Computer-based data analysis; prior computer experience not necessary. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 362 Political Parties and Elections 3 cr.
Organization and activities of modern political parties. Evolution of party systems in the United States; role in election campaigns; impact on public policy. Comparison to other political systems. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 363 Media and Politics 3 cr.
Effects of mass media, particularly television, on American politics and society; use of the media by politicians; nature and impact of news reporting; media and the socialization process; freedom of the press. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 365 Women and Politics 3 cr.
Examination of the changing political role of women in the United States. Political attitudes and values; voting; candidacy; and behavior of elected officials. Comparison across U.S. subcultures. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 370 Introduction to Political Thought 3 cr.
Introduction to the major thinkers and perspectives in Western political thought. Exploration of the seminal ideas of human nature, the nature of the state, and the good life that form the theoretical underpinnings of current political perspectives such as conservatism, liberalism, socialism, and fascism. Every year. Prerequisites: POSC 110/112, POSC 113/114 or POSC 131 or permission of instructor.

POSC 421 American Legislative Politics 3 cr.
Legislative politics in the U.S.; historical role of legislatures in American politics. Relations between legislatures and constituencies; congressional elections; internal formal and informal structures of Congress; congressional decision-making. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 422 American Constitutional Law I 3 cr.
Study of the U.S. Supreme Court as an institution within the American political system; the U.S. Constitution as defined in the principal decisions and opinions of the U.S. Supreme Court; the U.S. Supreme Court’s interpretation of the powers of three branches of federal government and the relationship between federal and state government. Every semester. Prerequisite: POSC 110/112 or permission of instructor.

POSC 423 American Constitutional Law II 3 cr.
The U.S. Constitution as defined in the principal decisions and opinions of the U.S. Supreme Court; the scope of individual rights and equal protection in relation to the powers of the national and state government. Every semester. Prerequisite: POSC 422 or permission of instructor.

POSC 427 The American Presidency 3 cr.
Analysis of the modern American presidency and the president’s interaction with the bureaucracy and Congress in making foreign and domestic policy. Evolution of the president’s role; executive office and White House staff; presidential power; personality; executive leadership and decision making. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 431 Russian Politics 3 cr.
The structure, functions and dynamics of the Russian political system since the collapse of the Soviet Union. Topics include economic policy, democratization, ethnic politics, and the role of Russia in international security, economic, and political fora. Fall. Prerequisite: POSC 113/114 or POSC 131 or permission of instructor; POSC 131 preferred.

POSC 435 Model Organization of American States 3 cr.
Detailed examination of the structure, functions, procedures, and issues associated with contemporary international organizations through preparation for and participation in the Model Organization of American States. Every year. Not open to students who have credit for former POSC 445. Prerequisite: POSC 341 and permission of instructor.

POSC 441 Theory and Practice of International Relations 3 cr.
Current theoretical approaches to the study of international relations; foreign policy analysis; designing approaches for international problem solving; international negotiation. Fall. Prerequisites: POSC 113/114 or POSC 131 or permission of the instructor.

POSC 442 National Security Policy 3 cr.
Historical evolution of U.S. National Security Policy since 1945. Social construction of the national interest within the policy-making process; defense policy; resource issues; and counterterrorism. Spring. Prerequisite: POSC 113/114 or POSC 131 or permission of instructor.

POSC 443 Transnational Terrorism and Counterterrorism 3 cr.
Sociological roots of religious terrorism; intellectual history and the evolution of the global Salafist movement; history of U.S. government efforts to counter global Salafist terrorism; development of counterterrorism policy recommendations. Variable. Prerequisite: POSC 113/114 or POSC 131 or permission of instructor.

POSC 450 Environmental Public Policy 3 cr.
Development of the analytical tools required to understand and assess current environmental policy with the application of these tools to current environmental issues at the regional, national and international level. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 455 Public Program Evaluation 3 cr.
Examination of current techniques in program evaluation. Emphasis will be placed on the policy cycle and the role that program evaluation does, can and should play in politics. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 462 Personality and Politics 3 cr.
Politics from a psychological perspective. The phenomenon of political leadership; biographical study of political leaders; psychological and cultural factors in individual and mass political behavior. Variable. Prerequisite: POSC 110/112 or permission of instructor.

POSC 470 Seminar in Political Thought 3 cr.
Development of political reasoning through careful consideration of the original works of political theorists, including such topics as the ideal political community and “natural right.” Impact of these ideas on the development of the modern political ideologies of conservatism, liberalism, socialism and fascism. Repeatable for maximum of 6 credits if topics are substantially different. Variable. Prerequisite: POSC 370 or permission of instructor.

POSC 471 American Political Thought 3 cr.
Analysis of the fundamental political ideas underlying the American political experience and an exploration of how these ideas have been applied and developed over time and...
how they relate to current debates in American politics. Variable. Not open to students who have credit for former POSC 424. Prerequisite: POSC 110/112 or permission of instructor.

**PSYC 488 Comparative Legal Systems** 3 cr.
Examination of the structures of judicial systems within the developed and developing world; the role of the judiciary within the structure of government and the rule of law; issues relating to the power and legitimacy of the judiciary within common law, civil law, and Islamic law systems. Every other year. Not open to students who have credit for former POSC 434. Prerequisite: POSC 422 or permission of instructor.

**PSYC 489 Law and Society Capstone** 1 cr.
Demonstration of disciplinary knowledge through an examination of major topics and concepts in the field; preparation and presentation of an essay examining selected topics in the major. Prerequisites: at least 75 credits earned; at least five 300- and/or 400-level courses in the Law and Society Program.

**PSYC 490 Capstone Seminar in Political Science** 1 cr.
Preparation of a portfolio of student work demonstrating research and analytical capabilities; development of written work synthesizing major points from previously conducted research; development of oral and visual presentation skills. Every semester. Prerequisite: Completion of at least 75 credits; five 300 or 400 POSC courses.

**PSYC 491 Seminar in Political Science** 3 cr.
Lectures, discussions, student reports, research techniques, criticism, interpretation. Individual research (senior thesis) on a common topic, with interim reports and final formal presentation of paper. Variable. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: written permission of instructor.

**PSYC 492 Internship Seminar** 3 or 6 cr.
Academic component of internship; requires co-registration in POSC 495. Full-time interns register for 6 credits (and 9 cr. 495), part-time interns 3 credits (492 and 6 cr. 495). Graded A through F; elective credit in POSC major. Every semester.

**PSYC 495 Internship in Political Science** 6 or 9 cr.
Experiential component of internship: guided work experience in conjunction with POSC 492; must directly relate to student's academic program. Full-time interns register for 9 credits 495 and 6 credits 492 and may not enroll in any other courses. Part-time interns must register for 6 credits 495 and 3 credits 492. Graded P/F; general elective credit - does not count toward POSC major. Every semester. Prerequisites: junior or senior standing, not on probation; departmental approval of internship before registering.

**PSYC 498 Readings in Political Science** 1 to 6 cr.
Directed readings in a specialized area or topic of political science. Topic ordinarily relates to an upper level political science course previously taken in that area. Regular conferences with instructor. Typically limited to seniors majoring political science with at least a 3.0 GPA in all political science courses. Repeatable for maximum of 6 credits if topics are substantially different. Every semester. Prerequisite: written permission of instructor and department chair.

## Psychology

**PSYC 150 General Psychology** 3 cr.
Introduction to the methodology, theories, and applications of the science of animal and human behavior. Every semester. GEP Group D.

**PSYC 151 Honors: General Psychology** 3 cr.
Introduction to the scientific study of human and animal behavior. Basic research findings, methodology, and theoretical, social, and ethical issues. Oral presentations and written reports on outside readings in psychology required. Credit may not be earned for both PSYC 150 and PSYC 151. Fall. Prerequisite: acceptance into the University Honors Program or permission of instructor. GEP Group D.

**PSYC 155 Critical Thinking and Scientific Inquiry** 3 cr.
Introduction to the theory and practice of critical thinking with a focus on how these relate to psychological and other scientific thinking. Related topics covered include creative thinking, problem solving, judgment, decision making, skeptical inquiry, and scientific thinking as they apply to behavior and mental processes. Every semester. Prerequisites: PSYC 150/151 or permission of instructor.

**PSYC 197 Introduction to the Profession of Psychology** 1 cr.
Explanation of the profession of psychology. Detailed examination of what it means to be a psychology major at FSU. Identification of opportunities available within the department and university. Preliminary examination of both career and graduate school opportunities available to psychology majors. Graded P/F. Every semester. Not open to students who have credit for former PSYC 297. Prerequisites: PSYC 150/151 with a “C” or better and declared major in psychology, or permission of instructor. Recommended for Psychology Majors within the first 45 credits.

**PSYC 201 Research Methods in Psychology** 3 cr.
Introduction to the scientific method as applied to behavioral data. Naturalistic observation, surveys and correlational studies; statistical topics. Should be taken immediately after completing PSYC 150/151. Every semester. Not open to students who have credit for former PSYC 300. Prerequisite: PSYC 150/151.

**PSYC 208 Introduction to Lifespan Development** 3 cr.
Survey of human development from conception to death, emphasizing biological, cognitive, and socio-emotional development. An overview for understanding how humans change across the lifespan. Less depth than PSYC 210 or PSYC 212. Variable. Prerequisite: PSYC 150/151 with a “C” or better.

**PSYC 210 Child Development** 3 cr.
Detailed review of the biological, cognitive, and socio-emotional aspects of development, from conception through childhood. More depth than PSYC 208. Every semester. Prerequisite: PSYC 150/151 with a “C” or better.

**PSYC 212 Adolescent and Adult Development** 3 cr.
Detailed review of the biological, cognitive, and socio-emotional aspects of development, from adolescence until maturity. More depth than PSYC 208. Every semester. Prerequisite: PSYC 150/151 with a “C” or better.

**PSYC 213 Psychology of Adjustment** 3 cr.
Explores the concept of psychological adjustment by relating it to students’ everyday lives. Relevant psychological theory and research presented on a variety of topics including self-concept, values, person perception, interpersonal attraction, sexuality, problems in adjustment and psychotherapy. Variable. Prerequisite: PSYC 150/151 with a “C” or better.

**PSYC 214 Intro to Geropsychology** 3 cr.
Study of older adult development (65+). Covers physical and psychological changes, developmental transition from middle adulthood, health and mental health care, cognitive change, caregiving, personality, work and adjustment to retirement, and changing relationships in older adulthood. Fall. Prerequisite: PSYC150/151 with a “C” or better.

**PSYC 220 Psychology of Women** 3 cr.
Explores women’s psychological development and experience. Covers sex roles and how society’s attitudes about girls and women affect female self-concept, personality, relationships and work experience. Topics also include women of color, sexual harassment, violence against women and spirituality. Spring. Prerequisite: PSYC 150/151 with a C or better. GEP Group F.

**PSYC 250 Death and Dying** 3 cr.
Examination of the individual’s attitudes and reactions toward death and dying and one’s own mortality. Social and psychological processes affecting attitudes and reactions are explored. Variable. Prerequisite: PSYC 150/151 with a C or better.

**PSYC 270 Psychological Perspectives of Human Sexuality** 3 cr.
Describes psychological aspects of human sexual behavior and attitudes. Covers historical and current research techniques used to study sexuality; theories of sexual attraction, love and behavior; sexuality across the lifespan; physical and psychological aspects of sexual response; and variations in sexual attitudes, orientations and practices. Variable. Prerequisite: PSYC 150/151 with a C or better.

**PSYC 290 Psychological Issues and Practices** 1-4 cr.
A special content area or group of issues selected by the Department and announced in the preceding semester. Admission competitive. See the department for the criteria. Three hrs. seminar format. Repeatable for maximum of 9 credits if topics are substantially different. Variable. Prerequisite: PSYC 150/151 with a “C” or better.

**PSYC 301 Statistical Methods in Psychology** 3 cr.
The nature of scientific method, explanation and theory. Experimental and quasi-experimental design and statistical analysis. Every semester. Prerequisite: PSYC 201 with a “C” or better.
PSYC 303 Psychology of Couples 3 cr.
The psychology of intimate relationships. Variable. Prerequisite: PSYC 150/151 with a “C” or better or permission of instructor.

PSYC 306 Sensation and Perception 3 cr.
Psychological and physiological approaches to the study of how information from the senses is processed, organized, and interpreted. Applied to understanding art and everyday experience. Variable. Prerequisite: PSYC 150/151 with a “C” or better.

PSYC 317 Abnormal Psychology 3 cr.
In-depth examination of psychological disorders. Relevant research and evidence-based treatment are discussed. Spring and Intersession. Not open to students with credit for former PSYC 417. Prerequisite: PSYC 150/151 with a “C” or better. Recommended PSYC 208/210/212.

PSYC 318 Social Psychology 3 cr.
Theories, methods and applications of social psychology. A survey of the social and interpersonal factors influencing an individual’s behavior. Topics include attitudes, person perception, interpersonal relations, group dynamics, social roles and conformity. Fall. Not open to students with credit for former PSYC 418. Prerequisite: PSYC 150/151 with a “C” or better.

PSYC 325 African American Psychology 3 cr.
Surveys African American psychology. Relevant psychological theory and research presented on a variety of topics including: family and individual relationships, the role of the Black Church, the impact of discrimination and oppression, and racial identity. Variable. Prerequisites: Prerequisite: PSYC 150/151 with a “C” or better. GEP Group F.

PSYC 340 Forensic Psychology 3 cr.
Examination of the interaction between psychology and the law including eyewitness testimony, expert testimony, why criminals commit crimes, criminal profiling, psychology’s role with the police, false memories, interrogations, the insanity defense, domestic violence, sexual abuse, discrimination and hate crimes, the death penalty, treatment of the criminal. Variable. Prerequisite: PSYC 150/151 with a “C” or better.

PSYC 345 Animal Learning and Cognition 3 cr.
Exploration of the cognitive abilities of nonhuman animals. Topics include classical and operant conditioning, memory, communication, social learning, and primate cognition. Fall. Prerequisite: PSYC 150/151 with a C or better.

PSYC 360 Industrial/Organizational Psychology 3 cr.
Explores how psychological theory, methods and research are used to help understand, predict and influence people’s behavior in the workplace. Considers personnel psychology, organizational psychology and consumer psychology. Variable. Prerequisite: PSYC 150/151 with a C or better.

PSYC 385 Group Processes 3 cr.
Study of group processes including power dynamics, curative factors, patterns of member interaction, leadership and stages of group development. Variable. Prerequisites: PSYC 150/151 with a “C” or better or permission of instructor.

PSYC 386 Drugs and Human Behavior 3 cr.
Research and theory concerning psychoactive drugs. Various drug classifications, their biological, psychological and social effects on the human organism and the environment, especially alcohol and other frequently abused drugs. Every semester. Prerequisite: PSYC 150/151 with a C or better.

PSYC 387 Addictions Treatment Delivery 3 cr.
Addresses the practice dimensions necessary for addiction counselors. Within each dimension, student introduced to the knowledge, skills and attitudes conducive to appropriate addiction service delivery. Variable. Prerequisites: PSYC 150/151 with a “C” or better or permission of instructor.

PSYC 388 Treatment Issues and Theory in Addictions 3 cr.
Practical application of research and theory of addiction counseling. Overview of treatment related issues, including assessment and diagnosis. Variable. Prerequisites: PSYC 150/151 with a “C” or better or permission of instructor.

PSYC 389 Ethics for the Addiction Counselor 1 cr.
Addresses legal and ethical considerations for addiction counselors. Differences and similarities among addiction and other helping professionals discussed. Variable. Prerequisites: PSYC 150/151 or permission of instructor.

PSYC 394 Learning Mentor in Psychology Field Experience 3 cr.
Supervised opportunity to act as a learning mentor. Strategies for assisted learning. Repeatable for maximum of 12 credits. Only 3 credits may be counted towards psychology major or minor. Every semester. Prerequisites: PSYC 150/151 with a “C” or better; submission of application; departmental approval.

PSYC 397 Career Planning in Psychology 3 cr.
Advanced exploration of the individual in choosing a career path in or related to psychology. Examine personal values, interests and skills; use a vocational inventory. Study resume or graduate application writing, job or graduate school search, and interview preparation. Graded P/F. Every semester. Prerequisites: PSYC 197 and at least 45 credits or permission of instructor.

PSYC 404 Psychology of the Exceptional Child 3 cr.
Developmental characteristics of exceptional children. Topics include attitudes towards exceptional children, pertinent laws, classroom management, and psychological treatment. Fall. Prerequisites: PSYC 210 or 212, or permission of instructor.

PSYC 408 Tests and Measurements 3 cr.
Psychological and educational tests, their validity, reliability, scale transformations, norms, and standardization. Administration, uses, and interpretation of various instruments of assessment. Fall. Prerequisite: PSYC 150/151 with a C or better.

PSYC 409 Human Learning and Cognition 3 cr.
An examination of human cognitive processes including human learning, memory and recall, attention processes, information processing, problem solving, thinking and reasoning, language acquisition and communication. Every semester. Prerequisite: PSYC 150/151 with a C or better.

PSYC 410 Introduction to Counseling 3 cr.
Practical and theoretical foundation for further study. The nature of helping relationships, conditions for counseling, stages in the counseling process, and the counselor as a professional helper. Role playing, audio and video tape experiences, and related skill-development exercises. Every semester and summer. Prerequisite: PSYC 150/151 with a C or better.

PSYC 420 Physiological Psychology 3 cr.
Characteristics of the nervous and endocrine system and their relationship to human and animal behavior. Fall. Prerequisites: PSYC 150/151 with “C” or better. Recommend BIOL 109 or 149.

PSYC 430 Health Psychology 3 cr.
Scientific study of biopsychological processes related to health states. Includes prevention and treatment of illness, mind/body connection, influence of social and physical environments on our health, and health belief models. Behavioral components of health risk factors and improvement of the health care system are addressed. Course topics biologically based with introduction to applied perspectives. Variable. Prerequisite: PSYC 150/151 with a “C” or better.

PSYC 440 Survey of Family Psych. & Intervention Issues 3 cr.
General survey of the principal theories and research about family interaction patterns and interventions with families. Includes systems approaches, family life cycle development, social forces affecting families, and mental health issues including substance abuse/dependency. Not intended to prepare students to provide family therapy. Summer or Intersession. Prerequisites: PSYC 208 or 210 or 212 or permission of instructor.

PSYC 445 Research Applications in Animal Behavior and Cognition 3 cr.
Overview of research methods used to examine the behavior and cognitive abilities of nonhuman animals. Research projects designed to provide first-hand experience conducting behavioral research with animals. Spring. Prerequisites: Submission of application, PSYC 345, and permission of instructor.

PSYC 450 Multicultural Counseling Issues 3 cr.
Introduction to the issues of gender, class, race, culture, sexual orientation, and physical ability, as these variables may influence their ability to be present and counsel individuals.
who are different from themselves. Students will examine between and within group differences in light of various social, cultural, historical, and political contexts. The goals of this course are to increase student awareness of self and others as cultural beings and gain knowledge about various cultural groups in the United States. Variable. Prerequisite: PSYC 150/151 with a C or better.

PSYC 470 Research Methods Applications 3 cr.
Application of univariate and multivariate research methods and statistical procedures to analyze data from research projects in psychology and related fields. Instruction in computer data analysis and professional presentation to prepare students for work and graduate study. Variable. Prerequisites: PSYC 301 with a “C” or better and at least 75 credits. Capstone.

PSYC 481 History and Systems of Psychology 3 cr.
Historical foundations of the discipline of psychology. Survey of recent and current systems of theoretical ideas in psychology. Attention to the roots of the discipline in philosophy and science; consideration of the work of great psychologists and their associated systems. Variable. Prerequisites: PSYC 150/151 with a “C” or better and at least 75 credits. Capstone.

PSYC 485 Behavioral Approaches to Human Problems 3 cr.
Extensive examination of behavior therapy principles and strategies/procedures. Spring. Prerequisite: PSYC 150/151 with a “C” or better.

PSYC 488 Environmental Psychology 3 cr.
Influences of natural and human-built environments on human behavior and how humans influence environments. Personal space and crowding, environmental stressors, psychological aspects of sustainability. Natural, residential, urban, educational and workplace environments. Variable. Prerequisites: PSYC 150/151 with a “C” or better.

PSYC 489 Abnormal Child Psychology 3 cr.
In-depth examination of child/adolescent psychological disorders. Relevant research and evidence-based treatment are discussed. Fall. Prerequisites: PSYC 208 or 210 or 212; at least 45 credits or permission of instructor.

PSYC 490 Special Topics in Psychology 1-4 cr.
Either a practicum to develop psychological skill, or a content-oriented course to provide a critical appraisal of a selected topic, as announced. Does not duplicate any other course offered by the Department of Psychology. Four credits when 5 contact hrs. are required (such as 2 hrs. lab and 3 hrs. lecture). Repeatable for maximum of 9 credits if topics are substantially different. Variable. Prerequisite: PSYC 150/151 with a C or better.

PSYC 491 Seminar in Psychology 3 cr.
Oral reports on a selected theme topic presented and discussed by students in a group setting. Written reports may also be required. Attendance at all seminar meetings expected. Repeatable for maximum of 9 credits if topics are substantially different. Variable. Prerequisite: PSYC 150/151 with a C or better.

PSYC 492 Internship Seminar 3 cr.
Academic component of internship; requires co-registration in PSYC 495. Full-time interns register for 3 credits of 492 (and 12 credits 495); part-time interns, 3 credits 492 (and 6-11 credits 495). Graded A-F. Every semester. Prerequisites: see PSYC 495. Capstone Internship option.

PSYC 495 Internship in Psychology 6-12 cr.
Experiential component of internship. Full-time interns register for 12 credits in 495 and 3 credits in 492 and may not enroll in other courses. Part-time interns register for 6-11 credits in 495 and 3 credits of 492. Graded P/F. Every semester. Prerequisites: At least 75 credits; submission of Internship Agreement form to internship director prior to registering; departmental approval.

PSYC 497 Senior Seminar 3 cr.
An integrated senior-year experience. Requires students to use accumulated skills, knowledge, and ethical sensitivity to critically analyze a new and/or controversial issue in psychology. Integration of previous course material and reflections on one’s own experiences expected. An integrative research paper/project required. Repeatable for maximum of 9 credits if topics are substantially different. Every semester. Prerequisites: PSYC 150/151 with a “C” or better and at least 75 credits. Capstone.

PSYC 498 Readings in Psychology 1-6 cr.
Directed reading on a specific topic designed for the individual student. Summaries of readings and conclusions as a formal written report is to be filed with the department. Not to duplicate any other course offered by the department. Departmental approval (granted only under extraordinary circumstances) required to enroll for more than 3 credit hrs. per semester. Repeatable for maximum of 9 credits if topics are substantially different. Every semester. Prerequisites: PSYC 150/151 and a written proposal approved by the sponsoring faculty member and Department Chair.

PSYC 499 Psychology Projects 1-6 cr.
Directed research, practicum, or other individualized learning experience on a specific topic. Formal written report is to be filed with the department. Projects primarily of readings are not acceptable (see PSYC 498), nor are projects conducted in a group setting (see PSYC 490 or 491); not to duplicate any other course offered by the department. Departmental approval (granted only under extraordinary circumstances) required to enroll for more than 3 credit hrs. per semester. Repeatable for maximum of 9 credits if topics are substantially different. Every semester. Prerequisites: PSYC 150/151 with a “C” or better and a written proposal approved by the sponsoring faculty member and Department Chair.

Recreation and Parks Management

CCBC students contact the coordinator for schedule of offerings.

RECR 100 Leisure and the Diverse American Culture 3 cr.
Examines diversity within American culture through the study of leisure and related influences on physical and mental wellness throughout the lifespan. Variable. GEP Group F.

RECR 201 Introduction to Recreation and Parks 3 cr.
Appreciation of recreational activities in our culture. History and philosophy of the recreation and park movement and the value of leisure in society today. Not open to students who have received credit for former PHEC 204. Every semester.

RECR 221 Introduction to Therapeutic Recreation 3 cr.
An overview of services, agencies and programs designed to meet the developmental and recuperative recreational and leisure needs of individuals with disabilities. Every semester.

RECR 321 Therapeutic Recreation Practices and Procedures 3 cr.
An overview of the history, philosophy, therapeutic recreation processes, theories and concepts related to leisure, play and service delivery options for specific disabilities and diagnoses in a therapeutic recreation setting. Variable.

RECR 342 Park and Facility Design 3 cr.
Study of park and recreation areas including acquisition, design and operating policies. Every semester.

RECR 380 Recreation Leadership 3 cr.
Leadership techniques involved in recreation and park settings including leadership in small and large groups. Every semester.

RECR 382 Program Planning 3 cr.
Planning principles used in the development of recreation programs and leisure experiences. Every semester.

RECR 384 Special Event Management 3 cr.
Basic elements of special event management including: human resource management and organization structure, the arts and entertainment industry, event planning, event marketing, box office and ticket management, contract negotiation, financial management for special events, liability issues and program evaluation. Field trips required. Spring.

RECR 388 Research Methods in Recreation and Parks 3 cr.
Methods of inquiry in the empirical study of recreation and parks. Nature of scientific inquiry, research designs, survey research, program evaluation, unobtrusive research and elementary quantitative analysis. Every semester.

RECR 390 Outdoor Adventures 3 cr.
Wilderness and survival activities. Hiking, backpacking, survival swimming, orienteering, fitness activities, outdoor first aid and emergency skill, physical and emotional challenges, preserving the outdoors. Self-inventory of physical history required. Variable.
### Social Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>RECR 393</td>
<td>History and Philosophy of Outdoor Recreation</td>
<td>3 cr.</td>
</tr>
<tr>
<td>RECR 394</td>
<td>Environmental Interpretation</td>
<td>3 cr.</td>
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<tr>
<td>RECR 421</td>
<td>Client Assessment and Evaluation in Therapeutic Recreation</td>
<td>3 cr.</td>
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<tr>
<td>RECR 422</td>
<td>Administration and Supervision of Therapeutic Recreation</td>
<td>3 cr.</td>
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<td>RECR 423</td>
<td>Advanced Facilitation Methods for Clinical</td>
<td>3 cr.</td>
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<td></td>
<td>and Community Setting in Therapeutic Recreation</td>
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<tr>
<td>RECR 440</td>
<td>Organization and Administration of Recreation and Parks</td>
<td>3 cr.</td>
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<tr>
<td>RECR 441</td>
<td>Issues and Risk Management in Recreation and Parks</td>
<td>3 cr.</td>
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<tr>
<td>RECR 492</td>
<td>Internship Project</td>
<td>3 cr.</td>
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<tr>
<td>RECR 499</td>
<td>Individual Study in Recreation and Parks</td>
<td>1-6 cr.</td>
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<tr>
<td>RECR 495</td>
<td>Internship in Recreation</td>
<td>9-12 cr.</td>
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<td>RECR 497</td>
<td>Out-of-Class Requirements</td>
<td>0 cr.</td>
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<tr>
<td>RECR 499</td>
<td>Individual Study in Recreation and Parks</td>
<td>1-6 cr.</td>
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<td>RECR 499</td>
<td>Internship Project</td>
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<td></td>
<td>Special Topics in Recreation and Parks</td>
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<tr>
<td>SOSC 350</td>
<td>Honors Seminar: Values and Social Change</td>
<td>3 cr.</td>
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<tr>
<td>SOSC 490</td>
<td>Topics in Social Science</td>
<td>3 cr.</td>
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<tr>
<td>SOSC 490</td>
<td>Interdisciplinary study of a special topic in the social sciences. Fall. Prerequisites: completion of introductory courses and progress on concentration plus written permission of social science coordinator.</td>
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<tr>
<td>SOWK 305</td>
<td>Racial and Cultural Minorities</td>
<td>3 cr.</td>
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<tr>
<td>SOWK 306</td>
<td>The Sociology of African Americans</td>
<td>3 cr.</td>
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<tr>
<td>SOWK 310</td>
<td>Statistics for Social Science</td>
<td>3 cr.</td>
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<tr>
<td>SOWK 311</td>
<td>Basic Research Methods</td>
<td>3 cr.</td>
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<tr>
<td>SOWK 364</td>
<td>Marriage and Family Relationships</td>
<td>3 cr.</td>
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</tbody>
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### Social Work

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>SOCI 364</td>
<td>Marriage and Family Relationships</td>
<td>3 cr.</td>
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<tr>
<td></td>
<td>Courtship, marriage, and family relationships. Current family patterns and the feasibility of the various alternatives to marriage. Every semester. Prerequisite: SOCI 100 or 111. Also offered as SOCI 364.</td>
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</tbody>
</table>
SOWK 370 Introduction to Social Welfare and Social Work 3 cr.
Introduction to social welfare and social work, including philosophy, history, and methods. The more significant aspects of social welfare ideology and the impact of established programs on meeting human need. Every semester. Prerequisite: SOWK 100 or 111, sophomore standing, or permission of the department.

SOWK 371 Social Policy 3 cr.
Analysis of contemporary social welfare programs, services, policies, and issues. Social welfare systems and their relation to other institutions in society. Every semester. Prerequisites: SOWK 370, POSC 110 or POSC 112, SOWK 200 (may be taken as a corequisite), or permission of the department.

SOWK 374 Child Welfare Social Services 3 cr.
The concept of child welfare, its historical perspective, changing nature, and contemporary policies, programs, and services. Variable. Prerequisite: SOWK 370 or permission of the Department.

SOWK 375 Human Behavior and the Social Environment I 3 cr.
Analysis of the interrelationships of culture, society, and the development and behavior of the individual. Focus on life span development from prenatal to death. Every semester. Prerequisites: SOWK 100 or SOCI 111. Prerequisite or corequisite: PSYC 150 or PSYC 151, BIOL 109 or Health Science Administration major.

SOWK 377 Human Behavior and the Social Environment II 3 cr.
Examines the development of individual and group behavior from an ecological systems perspective. The course fosters an understanding of the total person by integrating knowledge gained in other liberal arts courses. Every semester. Prerequisites or corequisites: SOWK 305, SOWK 371, and SOWK 375.

SOWK 379 Foundations for Generalist Practice 3 cr.
Basic procedures in social work: verbal and nonverbal communication, listening, observing, developing relationships, interviewing, and recording. Every semester. Prerequisite: SOWK 370 or permission of the Department.

SOWK 468 Sociology of Later Life 3 cr.
The dimensions of aging, including the aging process, the implications of increasing life expectancy, and societal reactions to the aged. Variable. Prerequisite: SOWK 100 or SOCI 111. Also offered as SOCI 468.

SOWK 470 Generalist Practice with Individuals & Families 3 cr.
Beginning theories and techniques of social work intervention within social systems utilizing an eclectic, ecological, problem-solving approach. Every semester. Prerequisites: SOWK 377 and 379 or permission of the Department. Enrollment limited to Social Work majors.

SOWK 471 Generalist Practice with Communities & Organizations 3 cr.
Advanced theories and techniques of social work intervention within social systems utilizing an eclectic, ecological, problem-solving approach. Every semester. Prerequisites: SOWK 377 and SOWK 379. Prerequisites or corequisites: SOWK 470 and SOWK 473. Enrollment limited to Social Work majors.

SOWK 473 Generalist Practice with Groups 3 cr.
Study of interpersonal dynamics that occur in a broad range of groups including support groups, psychoeducational groups, interdisciplinary teams, committees, and social action groups. The course emphasizes the development of core practice skills to facilitate the functional work of such groups. Prerequisite: SOWK 377 and SOWK 379. Prerequisite or corequisite: SOWK 470. Enrollment limited to Social Work majors.

SOWK 490 Special Topics in Social Work 1-3 cr.
Either a practicum to develop social work skills, or a content-oriented seminar to explore a topic of relevance to the Social Work profession. Does not duplicate any other course offered by the Department. Topics rotate each time the course is offered. Students may suggest topics and projects to the Department Chair. Variable. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: SOWK 370 and permission of the instructor.

SOWK 492 Social Work Seminar 3 cr.
Professional capstone course to integrate classroom and field experience. Required co-registration in SOWK 495. Graded A-F. Every semester. Enrollment limited to Social Work majors. Prerequisites: SOWK 471, senior standing, and completion of all prerequisite major and GEP course work. Capstone.

SOWK 495 Internship in Social Work 12 cr.
Required, integral part of Social Work major. Provides semester of full-time, generalist social service activity and social work intervention. Required co-registration in SOWK 492. Graded P/F. Every semester. Enrollment limited to Social Work majors. Prerequisites: SOWK 471; senior status; 3.0 GPA in major and overall; completion of all prerequisite major and GEP course work; attendance at orientation meeting in semester prior to internship; submission of internship application at the beginning of the semester preceding internship which includes resume. Fieldwork coordinator must approve all internships.

SOWK 498 Readings in Social Work 1-3 cr.
Directed reading on a specific topic designed for the individual student. Summaries of readings and conclusions constitute a formal written report to be filed with the Department. Not to duplicate any other course offered by the Department. Open to any Junior or Senior Social Work major who submits a proposal to the Department. Every semester. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: permission of instructor and Department Chair. Submit the proposal form (endorsed by the instructor) to the Department Chair prior to registering for the course and before the beginning of the semester.

SOWK 499 Individual Problems in Social Work 1-3 cr.
Special research project open to any Junior or Senior Social Work major who submits a proposal prior to the semester of the project to the faculty instructor. Must result in a written analysis of research findings. Every semester. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: permission of instructor and Department Chair.

Sociology

SOCI 100 Introduction to Sociology 3 cr.
Systematic introduction to the study of society. Basic concepts, methods of study, and theories about societal structures and processes. Every semester. Not open to students who have credit for former SOCI 201. GEP Group D.

SOCI 111 Honors: Introduction to Sociology 3 cr.
Basic sociological analysis through simulations, selected readings, discussions, and special topics projects. Four hrs. lecture and lab projects. Credit may not be earned for both SOCI 100 and SOCI 111. Every semester. Not open to students who have credit for former SOCI 211. GEP Group D.

SOCI 200 Social Problems 3 cr.
Description and analysis of conditions that societies define and treat as social problems. Analysis of selected problems. Every semester. Not open to students who have credit for former SOCI 301. Prerequisite: SOCI 100 or SOCI 111.

SOCI 203 Sociology of Deviant Behavior 3 cr.
Analysis of various forms of deviance in contemporary society, its functions and dysfunctions, and society's response. Every semester. Not open to students who have credit for former SOCI 303. Prerequisite: SOCI 100 or SOCI 111.

SOCI 224 Cultural Anthropology 3 cr.
Survey of the study of human behavior in simple tribal and peasant societies as well as in complex civilizations. Emphasis on social change. Fall. Not open to students who have credit for former SOCI 324. GEP Group F.

SOCI 305 Racial and Cultural Minorities 3 cr.
Analysis of minority-majority group situations, their causes and consequences. Minorities in the United States. Every semester. Not open to students who have credit for former SOCI 220 or 320. Prerequisite: SOCI 100 or SOCI 111. Also offered as SOWK 305. GEP Group F.

SOCI 306 The Sociology of African Americans 3 cr.
A critical study of the organization of African-American society, its development, the endogenous structures and social processes that compose and define it, and its relationship to and interaction with the people and social forces external to it. Variable. Also offered as SOWK 306. Prerequisite: SOCI 100 or 111.

SOCI 307 African Americans in Appalachia 3 cr.
Examines the rich legacy of African Americans in Appalachia beginning with the Civil War era and ending with the contemporary world. Chronologically arranged and
**SOCI 360 Statistics for Social Science** 3 cr.
Study of social scientific applications of univariate, bivariate, and multivariate statistical techniques with emphasis on their logic, interpretation, and application. Three hours lecture, one hour lab. Every semester. Prerequisite: completion of GEP math requirement. Also offered as SOWK 310.

**SOCI 361 Basic Research Methods** 3 cr.
Techniques of research design: testing of hypotheses, sampling, data collection, measurement, and elementary statistical analysis. Every semester. Prerequisite or corequisite: SOCI/SOWK 310. Prerequisite: three courses in sociology or permission of instructor.

**SOCI 362 Applied Social Research** 3 cr.
Collection and analysis of data to study applied social research problems. Research project, or participation in current research projects, required. Variable. Prerequisite: SOCI/SOWK 310 and SOCI/SOWK 311, or permission of instructor.

**SOCI 363 Advanced Social Research Methods** 3 cr.
Advanced studies in selected topics. Individual study and research for class reports. Formal paper required. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: permission of instructor. Capstone.

**SOCI 364 Marriage and Family Relationships** 3 cr.
Courtship, marriage, and family relationships. Current family patterns and the feasibility of the various alternatives to marriage. Every semester. Prerequisite: SOCI 100 or SOCI 111. Also offered as SOWK 364.

**SOCI 365 Social Inequality** 3 cr.
The theory of stratification or inequality in society; relevant social policy. Emphasis on American society and current social programs addressing inequality. Variable. Prerequisite: SOCI 100 or SOCI 111.

**SOCI 366 Sociology of Religion** 3 cr.
A comparative study of the social organization and development of religious groups. The interrelations between religion and other facets of society and social behavior. Spring. Prerequisite: SOCI 100 or SOCI 111.
SUSTAINABILITY STUDIES • THEATRE

SOCI 492 Internship Seminar/Research Paper 3 cr.
Academic component of internship. Required co-registration in 495. Graded A-F. Every semester.

SOCI 495 Internship in Sociology 6 or 12 cr.
Experiential component of internship; guided work experience in conjunction with 492; must directly relate to academic program. Full-time interns register for 12 credits in 495 and 3 credits in 492 and may not enroll in other courses. Part-time interns register for 6 credits in 495 and 3 credits in 492. Graded P/F. Every semester. Prerequisites: Junior or senior status; 18 hours in sociology; 2.0 GPA in major and overall; attendance at orientation meeting in semester prior to internship; submission of internship application by fifth week of semester prior to internship; application includes (1) résumé, (2) proposal, (3) letter of acceptance from proposed agency.

SOCI 498 Readings in Sociology 1-3 cr.
Open to any upper-level student who submits a proposal, prior to the semester of study, to the professor who will supervise the work. Department Chair’s written approval of the proposal is required. Formal report of study is required and filed. Every semester. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: permission of instructor.

SOCI 499 Individual Problems in Sociology 1-3 cr.
Special research project open to any upper-level student who submits a proposal, prior to the semester of the project, to the professor who will supervise the project. Department Chair’s written approval of the project is required. Formal report of the study is required and filed. Every semester. Repeatable for maximum of 6 credits if topics are substantially different. Prerequisite: permission of instructor.

Sustainability Studies

SUST 155 Introduction to Sustainability Studies 3 cr.
Introduction to sustainability as a field of study and a career. Consideration of environmental, economic and social equity aspects of sustainable living. Group practicum project. Three hr. lecture, two Saturday group projects required. Also offered as IDS 155. Every semester. GEP Group E.

SUST 246 Sustainability in Action 3 cr.
Practical aspects of sustainability are considered at the individual, household and community level. Challenges and opportunities for more sustainable decision making are examined. Required field trip. Fall. Prerequisite: SUST 155.

SUST 455 Seminar in Sustainability Studies 3 cr.
Integration of environmental, economic and social equity issues relating to sustainability. Individual seminar project demonstrating multidisciplinary approaches to sustainability. Group practicum project. Three hrs. lecture, two Saturday group projects required. Spring.

SUST 494 Field Experience in Sustainability Studies 3 cr.
Eight work-hours per week of supervised sustainability work experience in an approved professional setting. Evaluative paper on the experience is required. Prerequisites: SUST 155 and junior or senior standing. Permission of the instructor and Sustainability Studies coordinator.

Theatre

THEA 104 Theatre 1/2 to 1 cr.
Practical application of principles of acting, directing, or technical aspects, open to all students. Minimum 45 clock hours. Repeatable for credit each semester of enrollment; 3 credit hours in a production area required for major. Every semester.

THEA 106 Introduction to Theatre 3 cr.
Basic elements of theatre; play, playwright, performer, director, audience, designer, and technicians. Survey of theatrical forms from ancient times to the present. Practical experience with University Theatre productions working in design shops or back stage. Every semester. GEP Group A.

THEA 107 Introduction to Theatrical Vision 3 cr.
A general study of design for the theatre aimed at an understanding and facility in visual thinking, visual communication, and visual evaluation. Covers general design terminology, basic design research, basic design skills and introduction to theatre styles and conventions. Two 75-minute lectures and one 75-minute lab consisting of practical experience in design shops and performance spaces. Every semester. GEP Group A.

THEA 110 Introduction to Acting 3 cr.
Introductory preparation for acting through developmental exercises. Every semester.

THEA 202 Stage Management 3 cr.
Study of the responsibilities of theatrical stage managers. Training in techniques through the pre-production, design, rehearsal, technical process and performance. Spring even-numbered years. Prerequisite: THEA 107 or permission of instructor.

THEA 203 Costume Technologies 3 cr.
Introduction of the use of costume crafts in theatre. Course will focus on principles, techniques and practical application of make-up and hair (for both the actor and designer) as well as pattern development, draping, construction and fitting of costumes. Fall. Prerequisite: THEA 107 or permission of instructor.

THEA 204 Stagecraft 3 cr.
Study and practice in constructing, handling, rigging, and shifting scenery and properties. Attention given to techniques with metals and plastics. Fundamentals of drafting techniques for theatrical application including CAD. Work on department productions required. Three-hour lecture/demonstration. Spring.

THEA 205 Fabrication Technologies 3 cr.
Study in theatre fabrication techniques for scenic and properties construction. Training in metal work, welding techniques and properties construction. Spring even-numbered years. Prerequisite: THEA 107 or permission of instructor.

THEA 206 Modern American Drama 3 cr.
An introductory survey of representative American plays and playwrights of the 20th century with attention to the evolution of Modern American Theatre and analysis of the efforts of the playwrights and theatrical professionals. Also offered as ENGL 206. Spring. Prerequisites: THEA 106 and ENGL 101/111.

THEA 207 TheatreCAD 3 cr.
Computer-assisted design (CAD) for theatre. Study of software programs and their technical application as design and drafting tools for the theatre industry. Fall odd-numbered years. Prerequisite: THEA 107 or permission of instructor.

THEA 208 Acting: Basic Principles and Application 3 cr.
An introduction to and exploration of the basic principles of various modern acting methods through lecture, exercises and the practical application of these methods. Every semester. Prerequisites: THEA 110 and permission of instructor.

THEA 209 Portfolio Review I 1 cr.
Beginning workshop of professional portfolio and resume techniques and industry job search skills. Juried presentation of theatrical design and technology portfolio and resume. Spring. Grading P/F. Prerequisite: Student must have completed 20 hours of course credit.

THEA 210 Voice and Movement 3 cr.
Introduction to voice and movement for the stage. Development of vocal and physical awareness and expression through fundamental exercises for voice and body and study of the anatomy and physiology of vocal production. Fall. Prerequisite: THEA 110 or permission of instructor.

THEA 211 Voice and Movement II 3 cr.
Advanced study in voice and movement with emphasis on stage movement and physicality. Focus on engaging and connecting body and voice during performance. Spring. Prerequisite: THEA 210 or permission of instructor.

THEA 304 Sound Design 3 cr.
Study of conceptual and technical aspects of sound design for the theatre. Includes design analysis, music, composition and practical training with sound systems, consoles and sound software. Fall even-numbered years. Prerequisite: THEA 107 or permission of instructor.
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<th>COURSE DESCRIPTIONS</th>
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**THEA 305 Scene Design**

Techniques of scene design; scenic styles and forms; and esthetic principles, including ground plan, front and rear elevation, rendering and building of models. Practical experience required working in design shops with University Theatre productions. Fall even-numbered years. Prerequisite: THEA 107 or permission of instructor. Recommended: THEA 204.

**THEA 306 Stage Lighting**

Lighting as artistic design: theory and practice, types of equipment, use and deployment, and innovations. Practical experience required working in design shops with University Theatre productions. Not open to students who have credit for former CMAT 306. Spring odd-numbered years. Prerequisite: THEA 107 or permission of instructor. Recommended: THEA 204.

**THEA 307 Costume Design**

Studio course in design of costumes for theatre; visual interpretation of plays through character. History of dress; fashion effects; styles, fabric, draping, costume constructions. Practical experience working in design shops. Spring. Prerequisite: THEA 107 or permission of instructor.

**THEA 308 Directing**

Basic techniques for directing with practice in interpretation and staging of plays from the modern era. Every semester. Prerequisite: THEA 106, 107, 206.

**THEA 309 Portfolio Review II**

Advanced workshop for portfolio and resume techniques and industry job search skills. Juried presentation of theatrical design and technology portfolio and resume. Spring. Grading P/F. Prerequisite: THEA 209.

**THEA 310 Voice and Speech**

Development of voice and speech aimed at producing effortless, spontaneous, healthy, and clear speech for performance. Exploration of organs of speech and speech phonemes through study and application of the International Phonetic Alphabet. Fall. Prerequisite: THEA 210 or permission of instructor.

**THEA 315 Creative Dramatics**

Creative dramatic activity for learning and self-development of the child. Laboratory experience in supervising creative dramatic activity. Variable. Prerequisite: permission of instructor.

**THEA 318 Acting: Analysis and Performance**

A further exploration through lecture, exercises and scene work of various modern acting techniques with an emphasis on character development, script analysis and scene study. Fall. Prerequisite: THEA 208 or equivalent.

**THEA 340 Theatre Management**

Business management of theatre organization; budget and finances, play leasing and promotion, box office. Variable. Prerequisite: permission of instructor.

**THEA 350 Playwriting**

Study of the basic elements of a practice in writing for the theatre. Action, conflict, character and dialogue will be explored through building-block exercises which culminate in the writing of a one-act play. Fall, odd-numbered years. Repeatable no more than 2 times for credit. Prerequisites: ENGL 101/111, THEA 206 and permission of instructor.

**THEA 360 Stage Combat**

Intensive study of safety and performance techniques required for staging violence in the theatre. Students will work with combat elements while also dealing with dramatic narrative. Fall even-numbered years. Prerequisite: THEA 208, THEA 210 or permission of instructor.

**THEA 400 Theatre Production**

Practical application of the principles of theatre production on the advanced level, involving participation in actual production, classes and workshops of university-affiliated professional theatre. Repeatable no more than 3 times for credit. Variable. Prerequisite: permission of department. Production Capstone — Technical.

**THEA 407 Topics in Production Techniques**

Detailed techniques concerning a particular production subject announced in advance. Lecture and practical laboratory. Repeatable no more than 3 times for credit. Variable. Prerequisite: permission of instructor.

**THEA 408 Advanced Directing**

Advanced techniques for directing, with practice in interpretation and staging of plays from both modern and period styles. Credit cannot be earned for both THEA 325 and THEA 408. Variable. Prerequisite: THEA 308.

**THEA 409 Exit Portfolio Review**

Workshop for professional portfolio and resume techniques and industry job search skills. Juried presentation of theatrical design and technology portfolio and resume. Spring. Grading P/F. Prerequisite: THEA 309.

**THEA 410 Dialects**


**THEA 420 Marketing Yourself as an Actor**

An introduction to the business of acting and instruction in specific methods and strategies that the actor can implement to advance his/her career. Spring. Prerequisite: THEA 318. Acting Capstone.

**THEA 421 Advanced Acting: Analysis and Performance of Shakespeare**

3 cr.

Application of Stanislavski-based methods to the works of Shakespeare. Textual analysis, scansion, rhetorical structure, in-depth exploration, voice and body work. In-depth explorations of text, technique and character through targeted exercises employed each class. Students then required to independently utilize a variety of these exercises in performance of assigned speeches. Credit cannot be earned for both THEA 319 and 421. Fall. Prerequisite: THEA 318 or equivalent.

**THEA 425 History of the Theatre I**

Survey of theatrical history from pre-historic origins to English Renaissance with emphasis on the conventions of the Greek theatre. Includes treatment of historical background, dramatic forms, play analysis, plays and playwrights, and theatrical spaces in the various periods. Fall, odd-numbered years. Prerequisite: THEA 106.

**THEA 432 World Drama II: Twentieth Century**

Survey of theatrical history from Elizabethan Age to early 20th century with emphasis on the rise of realism and the anti-realistic movements that arose in response. Includes treatment of historical background, dramatic forms, plays and playwrights, and the physical theatre of the various movements. Spring, even-numbered years. Prerequisite: THEA 106.

**THEA 435 Auditioning for Theatre**

An introduction to the particular art of auditioning for various theatre venues and to the application of some of its components, including handling audition anxiety, selecting audition material, preparing for auditions, audition etiquette, audition wardrobe and various audition situations. Spring. Prerequisites: THEA 318, 319, 320 and permission of instructor.

**THEA 438 World Drama: Premodern**

World Drama from the 5th century B.C. Greeks to the late 19th century. Representative dramatists and forms from both the West and the East. Multicultural emphasis on the use and development of drama. Fall, even-numbered years. Prerequisite: ENGL 150/250 or THEA 106 or permission of instructor. Also offered as ENGL 431.

**THEA 439 World Drama: Modern**

World Drama during the twentieth century. Representative dramatists and forms from both the West and the East. Multicultural emphasis on the variety of dramatic forms. Alternate years. Prerequisite: ENGL 150/250 or THEA 106 or permission of instructor. Also offered as ENGL 432.

**THEA 450 Experiments in Scripting and Staging**

Creating scripts from existing sources, both narrative and non-narrative, with emphasis on traditionally non-dramatic/non-theatrical material. Staging experimental performances of the scripts. Variable. Prerequisites: THEA 308 and permission of instructor.
THEA 460 Physical Comedy 3 cr.
Intensive study of the techniques, theories and basic principles of comedy. Students will create physical comedic theatre through exercises and practical application of these methods. Fall odd-numbered years. Prerequisites: THEA 208, THEA 210 and THEA 308 or permission of instructor.

THEA 465 Projects in Theatrical Design 3 cr.
Advanced design projects in scenery, lighting, or costumes. Emphasis on musical forms: opera, dance and musical theatre. Practical experience with University Theatre productions working in design shops required. Weekly presentations. Repeatable no more than 3 times for credit. Variable. Prerequisites: THEA 305, 306 or 307, and written permission of the instructor. Production Capstone — Design.

THEA 466 Projects in Directing 1-3 cr.
Direction of a play for public performance through the FSU University Theatre Program. For advanced students, who must submit a formal proposal at least 6 months in advance. Project approval by departmental committee also is required. Repeatable no more than two times for credit. Every semester. Prerequisites: THEA 110, 107, 206 and 308 (Theatrical Studies Capstone).

THEA 489 Special Topics in Acting 3 cr.
Study and performance of scenes from important nonrealistic forms of drama: pre-modern, contemporary, or experimental. Variable. Prerequisite: permission of instructor.

THEA 490 Special Topics in Theatre Arts 3 cr.
Research or applied experience on an announced selected topic. Repeatable for maximum of 18 credits if topics are substantially different. Variable. Prerequisite: permission of instructor.

THEA 492 Internship Project 3 cr.
Academic component of internship experience, in conjunction with THEA 495. Graded A through F. Variable. Corequisite: THEA 495 (Theatrical Studies Capstone).

THEA 493 Field Work in Theatre Practice 1 to 3 cr.
Participation in production and/or management in an approved theatre or in an organization in a related communication field. Participants in a university-affiliated professional theatre may be eligible. Repeatable for maximum of 9 credits if topics are substantially different. Variable. Prerequisite: permission of department.

THEA 495 Internship in Theatre 6 or 12 cr.
Experiential component of internship: guided work experience directly related to student’s academic program. Full-time interns register for 12 credits in 495 and 3 credits in 492, and may not enroll in any other courses. Part-time interns must register for 6 credits in 495 and declared major in theatre, minimum 12 cr., and 2.5 GPA in major; Internship Agreement Form approved by department before registering (Theatrical Studies Capstone).

THEA 499 Directed Study 1 to 6 cr.
Intensive study through faculty-directed projects or papers. Hours arranged. Repeatable for maximum of 9 cr. Variable. Prerequisite: permission of department chair (Theatrical Studies Capstone).

WMST 201 Introduction to Women’s Studies 3 cr
A multicultural and multidisciplinary survey of the traditional assumptions about women. Students will gain an understanding of the intersection of gender with race, class, ethnicity, religion, and sexual orientation, and issues of ability/disability. Fall. GEP Group F.

WMST 490 Special Topics in Women’s Studies 3 cr.
In-depth analysis of a topic in Women’s Studies selected by the instructor; may be repeated for a maximum of 6 credits if topics are substantially different. Variable. Recommended: WMST 201.

WMST 491 Seminar in Women’s Studies 3 cr.
A synthesizing experience on selected topics in Women’s Studies. Variable. Prerequisite: WMST 201 or permission of instructor.

WMST 494 Practicum in Women’s Studies 1-6 cr.
A Women’s Studies related work experience at an approved site. A formal written report must be filed with the Women’s Studies faculty supervisor. Variable. Graded P/F. Prerequisites: WMST 201, and two Women’s Studies electives, and permission of program coordinator.

WMST 499 Independent Study 1-3 cr.
Directed research, practicum or other individualized learning experience on a specific topic in Women’s Studies. Formal written report to be filed with the Women’s Studies faculty supervisor. Variable. Prerequisites: WMST 201 and permission of program coordinator.
Personnel Register

Personnel information current as of 5/8/2015.

ACADEMIC AFFAIRS

WILLIAM P. CHILDS, Provost and Vice President for Academic Affairs. B.A., University of Richmond; M.Ed., University of Virginia; Ed.D., Virginia Polytechnic Institute and State University.

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UNIVERSITY ADVANCEMENT
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<tr>
<td>Robert E. Pletta</td>
<td>B.A., Baldwin Wallace College; M.A., Vanderbilt University</td>
</tr>
<tr>
<td>David R. Press</td>
<td>B.S., M.A., Northwestern University; Ph.D., Carnegie Mellon University</td>
</tr>
<tr>
<td>Judith J. Pula 4</td>
<td>B.A., M.Ed., Frostburg State University; Ph.D., Indiana University of Pennsylvania</td>
</tr>
<tr>
<td>Robert M. Riggs 5</td>
<td>B.A., The George Washington University; M.A., University of Illinois</td>
</tr>
<tr>
<td>John M. Riley 6</td>
<td>B.S., M.Ed., Indiana University of Pennsylvania; Ph.D., University of Maryland</td>
</tr>
<tr>
<td>Robert K. Riley 7</td>
<td>B.S., M.Ed., Indiana University of Pennsylvania; Ph.D., West Virginia University</td>
</tr>
<tr>
<td>Sharon L. Robinson</td>
<td>A.A., Virginia Intermont College; B.S., Carson-Newman College; M.P.A., Texas Christian University; CPA</td>
</tr>
<tr>
<td>Edward L. Root 8</td>
<td>B.S., Frostburg State University; Ph.D., University of Maryland</td>
</tr>
<tr>
<td>Alan M. Rose</td>
<td>A.B., The Johns Hopkins University; A.M., Ph.D., Columbia University</td>
</tr>
<tr>
<td>Lee B. Ross</td>
<td>B.A., M.A., DePauw University; Ph.D., Miami University of Ohio</td>
</tr>
<tr>
<td>Marc E. Routhier</td>
<td>B.A., University of New Hampshire; M.A., Ph.D., University of Denver</td>
</tr>
<tr>
<td>Patricia A. Santoro</td>
<td>B.A., Mary Washington College of the University of Virginia; M.A., Ph.D., University of North Carolina at Greensboro</td>
</tr>
<tr>
<td>Les B. Sattinger</td>
<td>B.S., Indiana University; M.F.A., Ohio University</td>
</tr>
<tr>
<td>Keith W. Schlegel</td>
<td>B.A., M.A., Miami University; Ph.D., West Virginia University</td>
</tr>
<tr>
<td>Carleton A. Shore</td>
<td>B.S., Frostburg State University; M.Ed., Ed.D., West Virginia University</td>
</tr>
<tr>
<td>Donald F. Shriner</td>
<td>B.S., Shippensburg University; M.S., University of Notre Dame; Ph.D., University of Maryland</td>
</tr>
<tr>
<td>Donald C. Simmons</td>
<td>B.A., Bridgewater College, M.B.A., James Madison University, CPA</td>
</tr>
<tr>
<td>Carl F. Slemmer</td>
<td>B.S., Bethany College; M.Ed., Frostburg State University; Ed.D., University of Maryland, College Park</td>
</tr>
<tr>
<td>Thomas W. Small</td>
<td>B.S., M.S., Illinois State University; Ph.D., University of Wisconsin, Madison</td>
</tr>
<tr>
<td>R. Vaughn Snyder</td>
<td>B.S., Grace College; M.S., St. Francis College; Ph.D., Ohio University</td>
</tr>
<tr>
<td>Harry I. Stegmaier</td>
<td>Jr., B.A., University of Santa Clara; M.A., Ph.D., University of Michigan</td>
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<tr>
<td>Edward E. Stepp</td>
<td>B.S.E.P., University of Toledo; Ph.D., University of Missouri</td>
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<tr>
<td>Charles R. Sterrett</td>
<td>B.S., The Pennsylvania State University; M.S., Air Force Institute of Technology; Ph.D., American University</td>
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<tr>
<td>Kenneth D. Steward</td>
<td>A.B., Duke University; Ph.D., University of Nebraska</td>
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<tr>
<td>Barbara A. Surgeant</td>
<td>B.A., Trenton State College; M.Ed., Frostburg State University</td>
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<td>Frederick C. Surgeant</td>
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<tr>
<td>Francis M. Tam</td>
<td>A.B., University of California; M.S., University of Minnesota</td>
</tr>
<tr>
<td>Judith N. Theilen</td>
<td>B.A., LeMoyne College; M.A., Ph.D., Syracuse University</td>
</tr>
<tr>
<td>Bertram A. Thiel</td>
<td>B.S., University of Utah; M.Ed., Frostburg State University</td>
</tr>
<tr>
<td>Richard M. Trask</td>
<td>A.B., M.A., The George Washington University; Ph.D., University of Illinois</td>
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<tr>
<td>William J. Vail</td>
<td>A.B., M.S., Ph.D., West Virginia University</td>
</tr>
<tr>
<td>Michael J. Wallinger</td>
<td>B.F.A., Wayne State College; M.A., Colorado State University; Ph.D., University of Oregon</td>
</tr>
<tr>
<td>Robert E. Wells</td>
<td>B.S., University of Rhode Island; M.Ed., Fitchburg State College; M.S., Indiana University</td>
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<tr>
<td>Don B. Weser</td>
<td>B.S., Bethany College; M.S., West Virginia University; Ph.D., Georgia Institute of Technology</td>
</tr>
<tr>
<td>Edward T. White</td>
<td>B.A., West Virginia University; M.A., Ph.D., The Pennsylvania State University</td>
</tr>
<tr>
<td>John B. Wiseman</td>
<td>B.A., Linfield College; M.A., Ph.D., University of Maryland</td>
</tr>
<tr>
<td>Kurt F. Wolfe</td>
<td>Jr., B.S., Frostburg State University; M.A., Ph.D., University of Maryland</td>
</tr>
<tr>
<td>Wayne A. Yoder</td>
<td>B.A., Goshen College; M.S., Ph.D., Michigan State University</td>
</tr>
</tbody>
</table>
The Board of Regents of the University of Maryland System

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Barry P. Gossett, Vice-Chair
Gary L. Attman, Treasurer
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David Kinkopf
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Credit-by-Exam and Other Non-traditional Learning

Following is a list of the types of examinations and other non-traditional learning experiences that Frostburg State University will accept for credit towards a degree. Students will receive elective or required credit depending on the content of the test or other experience evaluated. As of May 2011, the programs listed here are the only forms of non-traditional credit accepted. Participants should consult the Admissions Office (301.687.4201) or the Associate Provost (301.687.4212) for the most up-to-date information.

<table>
<thead>
<tr>
<th>Source</th>
<th>Score or Transcript Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Placement Program (CEEB)</td>
<td>3 or higher</td>
</tr>
<tr>
<td>CLEP</td>
<td>Minimum score varies by subject area with no score lower than 50 accepted</td>
</tr>
<tr>
<td>International Baccalaureate</td>
<td>4 or higher on each standard/subsidiary or higher level exam</td>
</tr>
<tr>
<td>College Courses at High School</td>
<td>If credit is recorded on a college transcript</td>
</tr>
<tr>
<td>Departmental Exams from Other Colleges</td>
<td>If credit is recorded on a college transcript</td>
</tr>
<tr>
<td>Military Credit</td>
<td>If equivalent to courses in FSU’s curriculum</td>
</tr>
<tr>
<td>Portfolio Credit from Other Colleges</td>
<td>If credit is recorded on a college transcript</td>
</tr>
<tr>
<td>FSU Special Departmental Exams</td>
<td>See following list of tests currently available</td>
</tr>
</tbody>
</table>

Credit-By-Exam Policies

In addition to earning credit at FSU or transferring course credit from other accredited institutions, you may acquire credits through examination. The examinations accepted include Advanced Placement Examinations, College Level Examination Program (CLEP), International Baccalaureate exams and special departmental examinations.

Recording of Credits

The grade AP, CL, IB, or CE (depending on the test) will appear on your transcript to indicate that the credits were earned by examination. Credit may be earned within your major as well as in general college and elective courses. Credit by exam will not be used in computing your cumulative grade point average.

General Limitations

1. To earn credit by examination, you must be currently enrolled at Frostburg State University as a full-time or part-time student.
2. An examination cannot be used to remove a failure in a course completed at Frostburg or elsewhere.
3. An examination cannot be used to remove a low grade earned in a course completed at Frostburg or elsewhere.
4. An examination may not be repeated or retaken in order to earn a higher score.
5. Students currently registered for an equivalent course are ineligible to receive credit-by-examination. If you believe you may qualify for credit-by-exam, you should take the examination prior to enrollment in the course. You cannot receive credit-by-exam and credit through course completion for the same course.
6. If you achieve a satisfactory score, academic credit will be recorded on your permanent record when you pay the credit charge.

Advanced Placement Examinations

Advanced Placement Examinations are available through the College Entrance Examination Board of the Educational Testing Service, Princeton, New Jersey 08540; www.collegeboard.org/ap.
You may receive credit by examination for grades of 3, 4 or 5 on the College Board Advanced Placement Examinations.

Procedures

1. Make arrangements to take the Advanced Placement Examination at the appropriate time. Pay the examination fee to the appropriate agency.
2. Your official score must be sent directly by the testing agency to the Associate Provost. After you enroll at the University, you must request that your score be evaluated, and, if the score is high enough for credit to be given, reported to the Registrar’s Office.
3. The credit will be recorded on your transcript without charge.

College Level Examination Program (CLEP)

CLEP is administered by the College Entrance Examination Board also. See the address in the Advanced Placement section, or consult http://www.collegeboard.org/clep.
The examinations consist of college-level general and subject examinations designed to measure knowledge acquired through means other than college course work.
The examinations stress understanding, the ability to perceive relationships, and a grasp of basic principles and concepts. General examinations are designed to measure general learning, often referred to as general education. Subject examinations are designed to measure achievement in the area of a specific course or subject.

Procedures

Procedures are identical with those noted above for the Advanced Placement Examinations.

International Baccalaureate Programme

The International Baccalaureate Programme (IB) is a rigorous two-year curriculum offered in select secondary schools throughout the world. In order to receive college credit for IB, you must sit for the examination in each subject of study and ask IB to send an official transcript to FSU’s Associate Provost.
Contact International Baccalaureate North America: toll free 1.866.826.4262; Fax 604.733.8970; www.ibo.org.

Special Departmental Examinations

After paying a $25 testing fee for each departmental exam, you may take a special examination in place of any course for which credit by examination has been established. If you pass the examination, the course will...
be waived, and you may receive credit for it by paying an additional processing fee. The department determines passing standards, as well as eligibility standards, if applicable. Students currently or formerly enrolled in a course are ineligible to take a special departmental exam to exempt from the same course.

**Procedures**
1. Request permission from the Department Chair to be evaluated for credit in a particular course.
2. Pay a $25 administrative testing fee at the University & Student Billing Office.
3. The Department Chair assigns an appropriate faculty member to evaluate you. In some cases, the department offers the exam on a regularly scheduled basis. See the list that follows.
4. The faculty member evaluates your work according to quantitative and qualitative standards previously established by the department — for example, by an oral or written examination or by performance.
5. If the faculty member’s evaluation reveals that your achievement is equal or superior to that of a student passing the course in a traditional way, the department will report the grade of CE to the Registrar’s Office on the form for granting course approval to students.
6. Pay a processing fee of $10 per credit hour to get the credit recorded on your transcript.
7. You may take such exams only once.

## Advanced Placement Tests (AP)

Following is the list of Advanced Placement Tests evaluated. Tests without course equivalency/credit listed may be accepted, but are not yet evaluated. Minimum score required is 3, unless otherwise noted.

### Title of Exam | FSU Course Equivalent(s) | Credit Hrs.
--- | --- | ---
Art History | Score of 3 or 4: ART 100 Art Appreciation  
Score of 5: ART 111 Honors: Art Appreciation | 3  
3
Biolo | BIOL 149 General Biology I | 4
Calculus AB* | Score of 3: MATH 120 Pre-Calculus Mathematics  
Score of 4 or 5: MATH 236 Calculus I | 3  
4
Calculus BC | Score of 3: MATH 236 Calculus I  
Score of 4 or 5: MATH 237 Calculus II | 4  
4
Cambridge Capstone Seminar | Score of 3 or 4: IDIS 150 First-Year FSU Colloquium  
Score of 5: IDIS 151 Honors: First-Year FSU Colloquium | 3  
3
Cambridge Capstone Research Project | Score of 3: IDIS 195 | 3
Cambridge A Level Global Perspectives and Research | Score of 3 or 4: IDIS 150 First-Year FSU Colloquium  
Score of 5: IDIS 151 Honors: First-Year FSU Colloquium | 3  
3
Chemistry | Score of 3 or 4: CHEM 201 General Chemistry I  
Score of 5: CHEM 201 General Chemistry I  
Score of 5: CHEM 202 General Chemistry II | 4  
4
Computer Science A | Score of 3 or 4: COSC 195 Computer Science Elective  
Score of 5: COSC 240 Computer Science I | 3  
4
Computer Science AB | Score of 3 or 4: COSC 240 Computer Science I  
Score of 5: COSC 240 Computer Science I  
Score of 5: COSC 241 Computer Science I | 4  
4
Economics: Macro | Score of 3 or 4: ECON 201 Principles of Economics (Macro)  
Score of 5: ECON 211 Honors: Principles of Macroeconomics | 3  
3
Economics: Micro | Score of 3 or 4: ECON 202 Principles of Economics (Micro)  
Score of 5: ECON 212 Honors: Principles of Microeconomics | 3  
3
English Language & Composition | Score of 3 or 4: ENGL 101 Freshman Composition  
Score of 5: ENGL 111 Honors: Freshman Composition | 3  
3
English Literature & Composition | Score of 3: ENGL 101 Freshman Composition  
Score of 4: ENGL 101 Freshman Composition  
Score of 4: ENGL 150 Introduction to Literature  
Score of 5: ENGL 111 Honors: Freshman Composition  
Score of 5: ENGL 250 Honors: Comparative Literature | 3  
3
Environmental Science | IDIS T60 Science, Technology and Society | 3
European History | HIST 195 History Elective | 3
French Language | FREN 101 Basic Elements of French I  
FREN 102 Basic Elements of French II | 3  
3
German Language | MDFL 195 Foreign Language Elective | 6
Govt. & Politics: Comparative | POSC 131 Introduction to Comparative Politics | 3
Govt. & Politics: U.S. | Score of 3 or 4: POSC 110 Introduction to American Politics  
Score of 5: POSC 112 Honors: Introduction to American Politics | 3  
3
Human Geography | Score of 3 or 4: GEOG 104 Human Geography  
Score of 5: GEOG 114 Human Geography | 3  
3
Internatl. English Language/APIEL | Not accepted
Latin Literature | Evaluated at student request
Latin: Vergil | Evaluated at student request
Music Theory | Score of 3 minimum: MUSC 102 Theory I  
Aural Subscore | Score of 3 minimum: MUSC 104 Aural Skills I | 3  
1

*FSU does not give credit for sub-scores.
### International Baccalaureate Exams (IB)

Following is the list of International Baccalaureate Exams currently evaluated. Exams without course equivalency/credit listed may be accepted, but are not yet evaluated. Minimum score required is 4 on the Standard or Higher Level exam unless otherwise noted.

<table>
<thead>
<tr>
<th>Title of Exam</th>
<th>FSU Course Equivalent(s)</th>
<th>Credit Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language A1</td>
<td>Score of 4 or 5 (Standard):</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 101 Freshman Composition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Score of 6 or 7 (Standard):</td>
<td>3</td>
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<tr>
<td></td>
<td>ENGL 111 Honors: Freshman Composition</td>
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<tr>
<td></td>
<td>ENGL 250 Honors: Comparative Literature</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Score of 4 (Higher Level):</td>
<td>3</td>
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<tr>
<td></td>
<td>ENGL 101 Freshman Composition</td>
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</tr>
<tr>
<td></td>
<td>Score of 5 (Higher Level):</td>
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<tr>
<td></td>
<td>ENGL 101 Freshman Composition</td>
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<tr>
<td></td>
<td>Score of 4 or 5 (Standard):</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 240 Honors: Comparative Literature</td>
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</tr>
<tr>
<td>Language A2</td>
<td>Syllabus review required. Contact Foreign Language Department.</td>
<td></td>
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<tr>
<td>Language B (French)</td>
<td>Score of 4 (Standard):</td>
<td>3</td>
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<tr>
<td></td>
<td>FREN 101 Basic Elements of French I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Score of 5, 6 or 7 (Standard):</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FREN 101 and 102 Basic Elements of French I and II</td>
<td>6</td>
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<tr>
<td>(Spanish)</td>
<td>Score of 4 (Standard):</td>
<td>3</td>
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<tr>
<td></td>
<td>FREN 101 and 102 Basic Elements of French I and II</td>
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<tr>
<td></td>
<td>Score of 5 (Higher Level):</td>
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</tr>
<tr>
<td></td>
<td>SPAN 101 Basic Elements of Spanish I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Score of 5, 6 or 7 (Standard):</td>
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<tr>
<td></td>
<td>SPAN 101 and 102 Basic Elements of Spanish I and II</td>
<td>6</td>
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<tr>
<td></td>
<td>Score of 4 or 5 (Higher Level):</td>
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<tr>
<td>Language B (Other languages)</td>
<td>Syllabus review required. Contact Foreign Language Department.</td>
<td></td>
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<tr>
<td>Language ab initio</td>
<td>Syllabus review required. Contact Foreign Language Department.</td>
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<tr>
<td>Business &amp; Management</td>
<td>BUAD 100 Introduction to Business</td>
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<tr>
<td>Economics</td>
<td>Score of 4 or 5:</td>
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<tr>
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<td>ECON 200 Basic Economics</td>
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<td>Score of 6 or 7:</td>
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<td>ECON 211 Honors: Principles of Macroeconomics</td>
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<td>Psychology</td>
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<td>PSYC 150 General Psychology</td>
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<td>PSYL 151 Honors: General Psychology</td>
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<tr>
<td>Spanish Language</td>
<td>Score of 4 or 5:</td>
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<td>SPAN 101 Basic Elements of Spanish I</td>
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<td></td>
<td>Score of 6 or 7:</td>
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<td>SPAN 102 Basic Elements of Spanish II</td>
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<tr>
<td>Statistics</td>
<td>Score of 4 or 5:</td>
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<td>MATH 109 Elements of Appl. Prob. &amp; Statistics</td>
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<tr>
<td></td>
<td>Score of 5:</td>
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<td></td>
<td>MATH 110 Honors: Elements of Appl. Prob. &amp; Statistics</td>
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<tr>
<td>Studio Art: Drawing</td>
<td>ART 212 Drawing</td>
<td>3</td>
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<tr>
<td>Studio Art: 2D Design</td>
<td>ART 104 Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>Studio Art: 3D Design</td>
<td>ART 105 Three-Dimensional Design</td>
<td>3</td>
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<tr>
<td>U.S. History</td>
<td>HIST 103 History of the United States</td>
<td>3</td>
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<tr>
<td></td>
<td>HIST 104 History of the United States</td>
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<tr>
<td>World History</td>
<td>HIST 114 World History</td>
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<tr>
<td>Geography</td>
<td>Score of 4 or 5:</td>
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<td>GEOG 104 Human Geography</td>
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<td>Score of 6 or 7:</td>
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<td>GEOG 114 Honors: Human Geography</td>
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<tr>
<td>History</td>
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<td>HIST 100 Contemp. World in Historical Perspective</td>
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<td></td>
<td>Score of 6 or 7:</td>
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<tr>
<td></td>
<td>HIST 111 Honors: Contemp. World in Historical Perspective</td>
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<tr>
<td>Special Topics in History</td>
<td>Syllabus review required. Contact History Department.</td>
<td>3</td>
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<tr>
<td>Info. Tech. in a Global Society</td>
<td>COSC 100 Introduction to Computer Science</td>
<td>3</td>
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<td>Philosophy</td>
<td>Score of 4 or higher (Standard):</td>
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<td>PHIL 101 Introduction to Philosophy</td>
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<td>Score of 4 or 5 (Higher Level):</td>
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<td></td>
<td>PHIL 101 Introduction to Philosophy</td>
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<td>PHIL 195 Philosophy Elective</td>
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<td></td>
<td>Score of 6 or 7 (Higher Level):</td>
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</tr>
<tr>
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<td>PHIL 111 Honors: Introduction to Philosophy</td>
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<td>Social &amp; Cultural Anthropology</td>
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<tr>
<td></td>
<td>CHEM 201 General Chemistry I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 202 General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>Design Technology</td>
<td>PHYS 195 Physics Elective</td>
<td>3</td>
</tr>
<tr>
<td>Environmental Systems</td>
<td>IDIS 160 Science, Technology and Society</td>
<td>3</td>
</tr>
</tbody>
</table>
## College Level Examination Program (CLEP)

Following is the list of College Level Examination Program exams currently evaluated. Exams without course equivalency/credit listed may be accepted, but are not yet evaluated. Minimum score required is 50, unless otherwise noted.

<table>
<thead>
<tr>
<th>Title of Exam</th>
<th>FSU Course Equivalent(s)</th>
<th>Credit Hrs. Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Composition</td>
<td>ENGL 101 Freshman Composition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Score of 70 or higher:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 111 Honors: Freshman Composition</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>HUMA 195 Humanities Elective</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH 195 Mathematics Elective</td>
<td>6</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td>SCIE 195 Natural Science Elective</td>
<td>6</td>
</tr>
<tr>
<td>Social Sciences &amp; History</td>
<td>SOSC 195 Social Science Elective</td>
<td>6</td>
</tr>
<tr>
<td><strong>Composition and Literature</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Literature</td>
<td>ENGL 261 American Lit.: Colonial to Present</td>
<td>3</td>
</tr>
<tr>
<td>Analyzing &amp; Interpreting Literature</td>
<td>ENGL 150 Introduction to Literature</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Score of 70 or higher:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 250 Honors: Comparative Literature</td>
<td>3</td>
</tr>
<tr>
<td>English Literature</td>
<td>ENGL 260 British Literature: Beowulf to Present</td>
<td>3</td>
</tr>
<tr>
<td>College Composition Modular</td>
<td>ENGL 101 Freshman Composition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Score of 70 or higher:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 250 Honors: Comparative Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title of Exam</th>
<th>FSU Course Equivalent(s)</th>
<th>Credit Hrs. Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foreign Languages</strong></td>
<td></td>
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</tr>
<tr>
<td>College-level French</td>
<td>FREN 101 Basic Elements of French I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FREN 102 Basic Elements of French II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Level II: Score of 59 minimum:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FREN 101 Basic Elements of French I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FREN 102 Basic Elements of French II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FREN 211 French Grammar, Composition, and Conversation I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FREN 212 French Grammar, Composition, and Conversation II</td>
<td>3</td>
</tr>
<tr>
<td>College-level German</td>
<td>Evaluated at student request</td>
<td></td>
</tr>
<tr>
<td>College-level Spanish</td>
<td>SPAN 101 Basic Elements of Spanish I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SPAN 102 Basic Elements of Spanish II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>LEVEL II: Score of 63 minimum:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPAN 101 Basic Elements of Spanish I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SPAN 102 Basic Elements of Spanish II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SPAN 211 Spanish Grammar, Composition, and Conversation I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SPAN 212 Spanish Grammar, Composition, and Conversation II</td>
<td>3</td>
</tr>
</tbody>
</table>
You may also receive credit by accelerated placement in foreign languages by passing a higher level course with a grade of C or better. You must pay a fee of $10 per credit. Accelerated placement credit is available in: FREN 101, 102, 211, 212, 250; SPAN 101, 102, 211, 212, 250 (3 credits per course).
Residency Policy

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, Amended February 15, 2008, Amended October 24, 2014; Amended April 10, 2015) This policy takes effect July 1, 2015.

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 time of application for admission to a USM institution, or
2. A student is Financially Dependent on a person who is not a resident of Maryland. This presumption may be rebutted. The student bears the burden of rebutting the presumption. See "III. Rebuttal Evidence" below.

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:
A. 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.
B. Has substantially all of his or her personal property, such as household effects, furniture and pets in Maryland.
C. Has paid Maryland income tax on all taxable income including all taxable income earned outside the State and has filed a Maryland tax return.
D. Has registered all owned or leased motor vehicles in Maryland.
E. Possesses a valid Maryland driver’s license, if licensed.
F. Is registered to vote in Maryland, if registered to vote.
G. 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.
H. Has a legal ability under Federal and Maryland law to live permanently without interruption in Maryland.
I. 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 A through I 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:
   1. 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., (Tuition will be considered as a student expense only to the extent tuition exceeds the amount of any educational scholarship, grant, student loan, etc.), or
   2. 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, including professionally related school activities that demonstrate a commitment to the student’s community or to the State of Maryland.
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 schol-
arship 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. An active duty member of the Armed Forces of the United States who is stationed in Maryland, resides in Maryland, or is domiciled in Maryland, or the spouse or a Financially Dependent child of such an active duty member. Spouses and children who qualify for exemptions under this provision will retain in-state status for tuition purposes as long as they are continuously enrolled, regardless of whether the active duty member’s station assignment, residence, or domicile remains in Maryland.
D. A veteran who provides documentation that he/she was honorably discharged from the United States Armed Forces and currently resides, or is domiciled, in Maryland.
E. A veteran who lives in Maryland and was discharged from a period of at least 90 days of service in the active military, navy, or air service less than three years before the date of the veteran’s enrollment and is pursuing a course of education with educational assistance under 38 U.S.C. §3001 or 38 U.S.C. §3301.
F. The spouse or child of a veteran, provided that:
   (1) the veteran was discharged or released from a period of at least 90 days of service in the active military, navy, or air service less than three years before the date of the spouse or child’s enrollment (or in the case of a spouse or child seeking benefits under the Post-9/11 G.I. Bill, the veteran died in the line of duty on or after September 11, 2001 but less than three years before the date of enrollment);
   (2) the spouse or child is entitled to assistance under Post-9/11 G.I. Bill, 38 U.S.C. §3319 and, 38 U.S.C. §3311(B)(9);
(3) the spouse or child currently lives in Maryland; and
(4) the spouse or child is pursuing a course of education with educational assistance under 38 U.S.C. §3001 or 38 U.S.C. §3301.
G. A member of the Maryland National Guard, as defined in the Public Safety Article of the Maryland Annotated Code, who joined or subsequently serves in the Maryland National Guard to: (i) provide a critical military occupational skill; or (ii) be a member of the Air Force Critical Specialty Code as determined by the National Guard.
H. 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.
I. 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 at the time of admission. 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 institution’s “Petition for Change in Classification for Tuition”. A student applying for a change to in-state status must furnish all evidence that the student wishes the USM institution to consider at the time the petition is due. The due date is based on the deadline set forth by the USM institution at which the student seeks to enroll. If the applicable USM institution has no such deadline, the due date is 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 USM 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 USM 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 institution reserves the right to retroactively assess all out-of-state charges for each semester/term affected.
E. Each USM institution shall develop and publish additional procedures to implement this Policy. Procedures shall provide that on request the institution President or designee has the authority to waive any requirement set forth in Section II if it is determined that the application of the requirements 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:
1. 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.
2. 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 April 10, 2015 shall be applied to all student tuition classification decisions EFFECTIVE JULY 1, 2015 AND THEREAFTER.

1 Annotated Code of Maryland, Education Article 912-101.
2 Annotated Code of Maryland, Education Article 9 15-106.4.
3 Annotated Code of Maryland, Education Article 9 15-106.4.
4 38 U.S.C.A. §53679(c).
5 38 U.S.C.A. §53679(c).
General Education and Transfer

Subtitle 06

TITLE 13B - MARYLAND HIGHER EDUCATION COMMISSION
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) “Art” 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 arts, performing and studio arts, 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 for credit at 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.

.02-1 Admission of Transfer Students to Public Institutions

A. Admission to Institutions.

(1) A student attending a public institution who has completed an A.A., A.A.S., or A.S. degree or who has completed 56 or more semester hours of credit, shall not be denied direct transfer to another public institution if the student attained a cumulative grade point average of at least 2.0 on a 4.0 scale or its equivalent in parallel courses, except as provided in subsection (4) below.

(2) A student attending a public institution who has not completed an A.A., A.A.S., or A.S. degree or who has completed fewer than 56 semester hours of credit, shall be eligible to transfer to a public institution regardless of the number of credit hours earned if the student:
(a) Satisfied the admission criteria of that receiving public institution as a high school senior; and
(b) Attained at least a cumulative grade point average of 2.0 on a 4.0 scale or its equivalent in parallel courses.

(3) A student attending a public institution who did not satisfy the admission criteria of a receiving public institution as a high school senior, but who has earned sufficient credits at a public institution to be classified by the receiving public institution as a sophomore, shall meet the stated admission criteria developed and published by the receiving public institution for transfer.

(4) If the number of students seeking admission exceeds the number that can be accommodated at a receiving public institution, admission decisions shall be:
(a) Based on criteria developed and published by the receiving institution; and
(b) Made to provide fair and equal treatment for native and transfer students.

B. Admission to Programs.

(1) A receiving public institution may require higher performance standards for admission to some programs if the standards
and criteria for admission to the program:
(a) Are developed and published by the receiving institution; and
(b) Maintain fair and equal treatment for native and transfer students.

(2) If the number of students seeking admission exceeds the number that can be accommodated in a particular professional or specialized program, admission decisions shall be:
(a) Based on criteria developed and published by the receiving institution; and
(b) Made to provide fair and equal treatment for native and transfer students.

(3) Courses taken at a public institution as part of a recommended transfer program leading toward a baccalaureate degree shall be applicable to related programs at a public institution granting the baccalaureate degree.

C. Receiving Institution Program Responsibility

(1) The faculty of a receiving public institution shall be responsible for development and determination of the program requirements in major fields of study for a baccalaureate degree, including courses in the major field of study taken in the lower division.

(2) A receiving institution may set program requirements in major fields of study which may simultaneously fulfill general education requirements.

(3) A receiving public institution, in developing its lower division course work, shall exchange information with other public institutions to facilitate the transfer of credits into its program.

.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, course work 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; or
(2) Conforming with COMAR 13B.02.02.16D (2)(b)-(c).

B. Each core course used to satisfy the distribution of §A (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 issues 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).

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 four-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 10-16 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. A 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 designated by the receiving institution shall complete the difference in credits designated by the receiving institution with fewer than 70 semester hours.

H. Student responsibilities. A student is held:

(1) Accountable for the loss of credits that:
   (a) Result from changes in the student'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 Non-General 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
   (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 two years of the undergraduate educational 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 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.

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 course work to be taken at the community college in fulfillment of the receiving institution’s lower division course work 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 if 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) A 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) A receiving institution shall evaluate the transcript of a degree seeking transfer student as expeditiously as possible, and notify the student of the results not later than mid-semester of the student's first semester of enrollment at the receiving institution, if all official transcripts have been received at least 15 working days before mid-semester. The receiving institution shall inform a student of the courses which are acceptable for transfer credit and the courses which are applicable to the student's intended program of study.

(4) A receiving institution shall give a transfer student 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 a student who has been continuously enrolled at the sending institution.

.08 Transfer Mediation Committee.
A. There is be a Transfer Mediation Committee, appointed by the Secretary, which is representative of the public 4-year colleges and universities and the community colleges.

B. Sending and receiving institutions that disagree on the transferability of general education courses as defined by this chapter shall submit their disagreements to the Transfer Mediation Committee. The Transfer Mediation Committee shall address general questions regarding existing or past courses only, not individual student cases, and shall also address questions raised by 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 are 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, a 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, if all official transcripts have been received at least 15 working days before mid-semester.

(2) If transcripts are submitted after 15 working days before mid-semester 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) A 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. Sending Institution's Appeal of Receiving Institution's Denial.
A sending institution may appeal a transfer student's denial of transfer credit by submitting the appeal to the Transfer Coordinator of the sending institution.

B. Sending Institution's Appeal of Receiving Institution's Denial.
(1) A receiving institution shall respond to the student 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 written 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.

.07 Programmatic Currency.
A. A receiving institution 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-year and 4-year public colleges provide input or comments to the institution proposing the change. Sufficient lead time shall be provided to effect the change with minimum disruption. Transfer students are not required to repeat equivalent coursework successfully completed at a community college.

.10 Periodic Review.
A. Report by Receiving Institution.
(1) A receiving institution shall report annually the progress of students who transfer from 2-year and 4-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...
GRADE GRIEVANCE POLICY

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.

Effective date: December 4, 1995 (22:24 Md. R. 1901)
Regulations 02, 03, and 05 amended. Effective date: July 1, 1996 (22:13 Md. R. 946)
Revised: February 11, 1998

University Procedures for Review of Alleged Arbitrary and Capricious Grading

Grounds for Grievance

The following procedures implement the University System of Maryland Policy for Review of Alleged Arbitrary and Capricious Grading (BOR III-1.20) and are designed to provide a means for a student to seek review of final course grades alleged to be arbitrary and capricious. In this policy 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; 2) the assignment of a course grade to a student by unreasonable application of standards different from the standards that were applied to other students in that course; or 3) the assignment of a course grade by a substantial and unreasonable departure from the instructor’s initially articulated standards.

Alleging a final grade to have been determined in an arbitrary and capricious manner is the sole ground upon which a student may seek review under these procedures. Since matters within the instructor’s sphere of academic judgment — such as choice of instructional and evaluation methods, criteria, and standards for evaluation — are not grounds for grievance, the burden of proving arbitrary and capricious grading by clear and convincing evidence will rest with the student.

How to Undertake a Grade Grievance

Students or faculty who desire additional information about the procedures that follow should contact the Associate Provost. Class days are days classes are in session in the subsequent semester after the grade that the student wants to grieve is assigned. The timetable portrays the maximum time allotted. Participants can meet their responsibilities any time before the specified day.

Stage I: Mediation

A student seeking review for a final grade in a course should make a reasonable effort to confer with the instructor (in person or in writing) and attempt to resolve the matter informally. If this effort is unsuccessful, the student approaches the chair of the department offering the course to request mediation of the grade dispute. This action must be taken no later than the 15th class day of the semester subsequent to the term in which the grade was received. The chair will inform the student of the grounds proper to a grade grievance, as stated above. The chair also will review relevant material and consult with the instructor in an effort to resolve the issue of the grade. (If the instructor involved is the chair, the student approaches the senior faculty member in the department to request mediation.) Mediation must be completed no later than the 25th class day.

In cases where a resolution mutually acceptable to the student and the instructor is not forthcoming, and the student wishes to pursue a formal grievance, the student may proceed to Stage II.

Stage II: Formal Grievance

As a precondition to filing a formal grievance, a student must fulfill all of his/her responsibilities and meet the deadline specified in Stage I: Mediation above.

No later than the end of the 30th class day of the semester, a student still wishing to grieve a grade must file a written grievance with the instructor’s College dean. This grievance must describe in detail the bases for the allegation that the grade was arbitrary and capricious, and include all evidence supporting that claim. The student must send copies of this statement to the instructor and the chair.

Within 10 class days of receipt of a student’s written, Stage II grievance, the dean will miss the grievance if the student 1) did not participate in Stage I: Mediation and/or meet the deadline specified in Stage I; 2) did not file the Stage II appeal by the stated deadline; 3) does not furnish evidence that the allegations, if true, constitute arbitrary and capricious grading, as defined above; and/or 4) has filed a complaint concerning the same grade with the ADA/EEO Compliance Office alleging discrimination or sexual harassment.

If the grievance is not dismissed, the dean shall ask the instructor to respond to the grievance in writing within ten class days, addressing the response to the dean and copying the student and the chair. The dean will ask the chair to forward all documentary evidence collected during the mediation stage to the dean.

If the grievance is not dismissed, the dean shall appoint a grade grievance committee of three tenured faculty members and shall set the date for an informal, non-adversarial grade grievance hearing to occur within five class days following the due date for a written response from the instructor. The student, the instructor, and the chair will be invited to attend the hearing, and may present relevant evidence. The dean also will attend and may choose to participate in the discussion. In keeping with the informal nature of the hearing, neither the student nor the instructor may be accompanied by a representative or advisor. If the academic records of other students in the grievant’s class are relevant to the discussion, the grievant must be excused for that portion of the hearing to protect the privacy of other students. The grade grievance committee shall forward its written recommendation to the dean within five class days after the conclusion of the hearing. The dean may accept, reject or alter the recommendation. The dean shall render a decision to the student in writing, either in support of the original grade or of a grade change, with copies to the instructor, the
Under the Family Educational Rights and Privacy Act (FERPA), students have certain rights regarding the inspection and disclosure of education records directly related to the student and maintained by the University. These rights include:

1. The right to inspect and review the student's educational records within forty-five (45) days of the day the University receives a request of access. Requests for inspection should be made in writing and directed to the Office of the Registrar.

2. The right to request an amendment of the student's education records if the student believes that they are inaccurate, misleading or otherwise in violation of the student's privacy rights under FERPA. A request to amend education records must be made in writing and submitted to the Registrar. The request must clearly identify the part of the record the student wants changed and why it should be changed. If the University decides not to amend the record as requested, the University will notify the student of its decision, and if the decision is negative, the procedures for a hearing regarding the request.

3. The right to consent to disclosures by the University of personally identifiable information contained in the student's education records, except to the extent FERPA authorizes disclosure without consent. The University discloses education records without a student's prior consent under several exceptions to FERPA, including the exception for disclosure to school officials with legitimate educational interests. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill professional responsibilities for the University. A "school official" is any person employed by the University in any administrative, supervisory, academic, research or support staff position; any person or company with whom the University has contracted (such as an auditor or collection agent); or any student serving on an official committee such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

Upon request, the University also discloses education records without consent to officials of another school in which a student seeks or intends to enroll.

The following categories of information are considered by the University to be directory information and may be disclosed without the student's prior consent unless the student submits a Directory Restrictions Form using PAWS: Name; local, home and email address; local and home telephone number; major field of study; classification; dates of attendance, degrees, honors and awards received; officially recognized activities and sports; weight and height for athletes; and most recent school or educational institution attended.

The Directory Restrictions Form in PAWS can be found using the following path: Student Center>User Preferences>FERPA restrictions>Edit FERPA Directory Restrictions.

Note that directory information may be released to commercial organizations and may be used for solicitation purposes. However, restricting release of directory information will prevent the University from providing such information to prospective employers and other organizations, media, friends and family.

4. A student may permit inspection of education records by parents, guardians or others by completing a Release of Information Form in PAWS on an annual basis. The form can be found using the following path: Student Center>"other academics" drop down box> Release of Information.

Release of Information Forms are purged at the completion of each academic year. If a student wishes to permit inspection of education records for the upcoming academic year, a new form must be completed.

5. The right to file with the U.S. Department of Education a complaint if the student believes that the University has failed to comply with the requirements of FERPA. Complaints may be filed with the Family Policy and Regulations Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC, 20202-5901.
<table>
<thead>
<tr>
<th>Index</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absences for Activities</td>
<td>40</td>
</tr>
<tr>
<td>Absences for Religious Observances</td>
<td>40</td>
</tr>
<tr>
<td>Academic Advising Policies and Procedures</td>
<td>39</td>
</tr>
<tr>
<td>Academic Calendar</td>
<td>iv</td>
</tr>
<tr>
<td>Academic Common Market</td>
<td>14</td>
</tr>
<tr>
<td>Academic Dismissal</td>
<td>46</td>
</tr>
<tr>
<td>Academic Eligibility for Athletes</td>
<td>47</td>
</tr>
<tr>
<td>Academic Probation</td>
<td>46</td>
</tr>
<tr>
<td>Academic Program</td>
<td>29</td>
</tr>
<tr>
<td>Academic Programs</td>
<td>3</td>
</tr>
<tr>
<td>Academic Regulations &amp; Procedures</td>
<td>39</td>
</tr>
<tr>
<td>Academic Success Network</td>
<td>24</td>
</tr>
<tr>
<td>Academic Standards</td>
<td>44</td>
</tr>
<tr>
<td>Academic Warnings</td>
<td>21, 46</td>
</tr>
<tr>
<td>Acceptance of Transfer Credit</td>
<td>13, 248</td>
</tr>
<tr>
<td>Accounting</td>
<td>51, 171</td>
</tr>
<tr>
<td>Accreditation</td>
<td>ii</td>
</tr>
<tr>
<td>Acting Track</td>
<td>166</td>
</tr>
<tr>
<td>Addictions Counseling</td>
<td>82</td>
</tr>
<tr>
<td>Additional Academic Opportunities</td>
<td>35</td>
</tr>
<tr>
<td>Additional Bachelor's Degree Program</td>
<td>37</td>
</tr>
<tr>
<td>Additional Major Program</td>
<td>37</td>
</tr>
<tr>
<td>Admission</td>
<td>11</td>
</tr>
<tr>
<td>Admission for G.E.D. Recipients</td>
<td>12</td>
</tr>
<tr>
<td>Admission for Mature Adults</td>
<td>11</td>
</tr>
<tr>
<td>Admission for Transfer Students</td>
<td>12</td>
</tr>
<tr>
<td>Admission of International Students</td>
<td>12</td>
</tr>
<tr>
<td>Advanced Placement Examinations</td>
<td>240, 242</td>
</tr>
<tr>
<td>Advance Fees and Deposits</td>
<td>16</td>
</tr>
<tr>
<td>Adventure Sports Concentration</td>
<td>84</td>
</tr>
<tr>
<td>Adventure Sports Management Major</td>
<td>82, 171</td>
</tr>
<tr>
<td>Advising and Career Services</td>
<td>24</td>
</tr>
<tr>
<td>African American Studies</td>
<td>89, 172</td>
</tr>
<tr>
<td>Alcohol/Drug Education Program</td>
<td>25</td>
</tr>
<tr>
<td>Americans with Disabilities Act</td>
<td>1</td>
</tr>
<tr>
<td>Animal Behavior</td>
<td>90</td>
</tr>
<tr>
<td>Application Dates</td>
<td>11</td>
</tr>
<tr>
<td>Art &amp; Design</td>
<td>91, 172</td>
</tr>
<tr>
<td>Art History</td>
<td>92</td>
</tr>
<tr>
<td>Athletics</td>
<td>27</td>
</tr>
<tr>
<td>Athletic Training</td>
<td>78</td>
</tr>
<tr>
<td>Attendance at Another Institution</td>
<td>41</td>
</tr>
<tr>
<td>Auditors</td>
<td>41</td>
</tr>
<tr>
<td>Automobile Policy</td>
<td>23</td>
</tr>
<tr>
<td>Bachelor of Arts Degree</td>
<td>30</td>
</tr>
<tr>
<td>Bachelor of Fine Arts Degree</td>
<td>30</td>
</tr>
<tr>
<td>Bachelor of Science Degree</td>
<td>29</td>
</tr>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>30</td>
</tr>
<tr>
<td>Bachelor of Science in Urban and Regional Planning</td>
<td>30</td>
</tr>
<tr>
<td>BFA in Art &amp; Design</td>
<td>91</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>98</td>
</tr>
<tr>
<td>Biology</td>
<td>93, 174</td>
</tr>
<tr>
<td>Black Student Alliance</td>
<td>26</td>
</tr>
<tr>
<td>Board Charges</td>
<td>15</td>
</tr>
<tr>
<td>Business Administration</td>
<td>53, 176</td>
</tr>
<tr>
<td>Business Economics</td>
<td>56</td>
</tr>
<tr>
<td>Business Law</td>
<td>176</td>
</tr>
<tr>
<td>Business Management Information Systems</td>
<td>176</td>
</tr>
<tr>
<td>Business Premier</td>
<td>37</td>
</tr>
<tr>
<td>Child and Family Psychology Emphasis</td>
<td>157</td>
</tr>
<tr>
<td>Choosing a Major</td>
<td>5</td>
</tr>
<tr>
<td>Class Attendance</td>
<td>40</td>
</tr>
<tr>
<td>Class Standing</td>
<td>40</td>
</tr>
<tr>
<td>Climate System Science Concentration</td>
<td>123</td>
</tr>
<tr>
<td>Coaching</td>
<td>79</td>
</tr>
<tr>
<td>Collection of Unpaid Bills</td>
<td>17</td>
</tr>
<tr>
<td>College Level Examination Program (CLEP)</td>
<td>241, 244</td>
</tr>
<tr>
<td>College of Business</td>
<td>49</td>
</tr>
<tr>
<td>College of Education</td>
<td>63</td>
</tr>
<tr>
<td>College of Liberal Arts &amp; Sciences</td>
<td>87</td>
</tr>
<tr>
<td>College Preparatory Program in High School</td>
<td>11</td>
</tr>
<tr>
<td>Combined B.S. in Accounting/MBA Program</td>
<td>52</td>
</tr>
<tr>
<td>Communication Studies</td>
<td>99, 178</td>
</tr>
<tr>
<td>Community Program Delivery Concentration</td>
<td>83</td>
</tr>
<tr>
<td>Computer Information Systems</td>
<td>101</td>
</tr>
<tr>
<td>Computer Print Graphics</td>
<td>100</td>
</tr>
</tbody>
</table>
INDEX

Computer Labs ................................................................. 8
Computer Science ........................................................... 102,179
Computer Science Certificates ......................................... 104
Cords PE Center .............................................................. 7
Core Skills ........................................................................ 32
Cost of Attendance .......................................................... 15
Counseling and Psychological Services ......................... 25
Course Changes .............................................................. 40
Course Descriptions ........................................................ 171
Course Load ....................................................................... 40
Course Repetition and Grading ......................................... 45
Creative Writing Concentration ....................................... 115
Credit by Examination ..................................................... 42,241
Credit-By-Exam Policies .................................................. 241
Criminal Justice ............................................................... 182
Cultural Anthropology ..................................................... 105
Cultural Events ............................................................... 26
Dance .............................................................................. 105,182
Dean's List ........................................................................ 45
Declaring a Major ............................................................ 5
Deferred Payment Plans .................................................. 17
Degree Requirements ........................................................ 29
Dental Hygiene Preparation ............................................ 127
Dentistry Preparation ....................................................... 128
Departmental Examinations ............................................ 245
Department of Technical Services .................................... 8
Department of Instructional Design & Delivery .......... 8
Design/Technology Theatre Track .................................... 161
Diagnostic Placement Tests ........................................... 11
Disability Support Services ............................................. 24
Dismissal .......................................................................... 46
Diversity and Equal Opportunity .................................... 1
Diversity Center .............................................................. 24
Double-counting GEP Courses ....................................... 31
Driving Times to Frostburg ............................................. 6
Drop/add (Course Changes) ............................................ 40
Early Childhood/Elementary Education ....................... 67
Earth Science ................................................................. 106
Economics ................................................................. 56,57,183
Educational Professions ............................................... 65,184
Electrical Engineering .................................................... 108
Elementary Education .................................................... 69
Elementary/Middle School Dual Certification ............... 72
Emphases ...................................................................... 4,37
Engineering ................................................................. 108-113,188
Engineering - Collaborative Program ............................. 112
Engineering Physics Track ............................................. 153
English ............................................................................ 114,190
Enrollment of Undergraduates in Graduate Courses .......... 37
Environmental Analysis and Planning ......................... 117
Environmental Science Concentration ......................... 95,107
Ethnobotany .................................................................. 118
Exercise & Sport Science ............................................... 80
Expenses .......................................................................... 15
Experiential Learning and Internships ............................. 34
Facilities .......................................................................... 6
Federal Aid ................................................................. 18
Federal Loans ............................................................... 19
Federal Pell Grant .......................................................... 18
Federal Plus Loans ......................................................... 19
Federal Stafford Loans .................................................... 19
Federal Supplemental Educational Opportunity Grant .... 18
Federal Work-Study Program ......................................... 19
Fees .................................................................................. 15
Film Studies ..................................................................... 119
Finance Concentration, Minor ...................................... 54,59,193
Financial Aid ................................................................. 18
Financial Aid for Collaborative Engineering Programs .... 20
Financial Responsibility Policy ...................................... 22
Financial Services Minor ............................................... 59
Fine Arts ......................................................................... 119
First Year Admissions Procedures ................................... 11
First Year Experience ....................................................... 23
Foreign Languages & Literature ..................................... 120,194
Forestry .......................................................................... 121
French ............................................................................... 120,194
Freshman Admission Procedures .................................. 11
FSU Connections ............................................................ 35
FSU Grants ....................................................................... 20
Gaining Admission ........................................................ 11
General Coursework ....................................................... 37
General Education and Transfer ..................................... 248
General Education Program (GEP) ............................... 31,32
General Management Concentration ........................... 524
Geography ....................................................................... 122,196
GEP Grading Policy ........................................................ 31
Getting to FSU ............................................................... 6
Global Business Concentration ...................................... 54,199
Global Systems Analysis Concentration ....................... 124
Golden Identification Card ............................................. 14
Grade Forgiveness Policy ................................................ 13
Grade Grievance Policy ................................................... 252

...........................................................................................................   46
..........................................................................................................   32
....................................................................................................................   37
............................................................................................  56, 57, 183
.......................................................................................................   40
.......................................................................................................   40
.......................................................................................................   45
.................................................................................................   42,241
.................................................................................................   241
...........................................................................................................................................   6
.................................................................................................   182
..........................................................................................   105
.................................................................................................   26
.................................................................................................   105,182
...........................................................................................................................................   5
....................................................................................................................   29
...........................................................................................................................................   127
...........................................................................................................................................   128
....................................................................................................................   245
...........................................................................................................................................   8
...........................................................................................................................................   8
...........................................................................................................................................   161
...........................................................................................................................................   11
...........................................................................................................................................   24
...........................................................................................................................................   46
...........................................................................................................................................   1
...........................................................................................................................................   24
...........................................................................................................................................   31
...........................................................................................................................................   6
...........................................................................................................................................   40
...........................................................................................................................................   67
...........................................................................................................................................   106
...........................................................................................................................................   56,57,183
...........................................................................................................................................   65,184
...........................................................................................................................................   108
...........................................................................................................................................   69
...........................................................................................................................................   72
...........................................................................................................................................   4,37
........................................................................................................................................... 108-113,188
...........................................................................................................................................   112
...........................................................................................................................................   153
...........................................................................................................................................   114,190
...........................................................................................................................................   37
...........................................................................................................................................   117
...........................................................................................................................................   95,107
...........................................................................................................................................   118
...........................................................................................................................................   80
...........................................................................................................................................   15
...........................................................................................................................................   34
...........................................................................................................................................   6
...........................................................................................................................................   18
...........................................................................................................................................   19
...........................................................................................................................................   18
...........................................................................................................................................   19
...........................................................................................................................................   19
...........................................................................................................................................   18
...........................................................................................................................................   19
...........................................................................................................................................   15
...........................................................................................................................................   119
...........................................................................................................................................   54,59,193
...........................................................................................................................................   18
...........................................................................................................................................   20
...........................................................................................................................................   22
...........................................................................................................................................   59
...........................................................................................................................................   119
...........................................................................................................................................   11
...........................................................................................................................................   23
...........................................................................................................................................   120,194
...........................................................................................................................................   121
...........................................................................................................................................   120,194
...........................................................................................................................................   11
...........................................................................................................................................   35
...........................................................................................................................................   20
...........................................................................................................................................   11
...........................................................................................................................................   37
...........................................................................................................................................   248
...........................................................................................................................................   31,32
...........................................................................................................................................   524
...........................................................................................................................................   122,196
...........................................................................................................................................   31
...........................................................................................................................................   6
...........................................................................................................................................   54,199
...........................................................................................................................................   124
...........................................................................................................................................   14
...........................................................................................................................................   13
...........................................................................................................................................   252
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>Grade Points</td>
</tr>
<tr>
<td>44</td>
<td>Grades</td>
</tr>
<tr>
<td>37</td>
<td>Graduate Studies</td>
</tr>
<tr>
<td>43</td>
<td>Graduation</td>
</tr>
<tr>
<td>43</td>
<td>Graduation with Honors</td>
</tr>
<tr>
<td>18, 20</td>
<td>Grants</td>
</tr>
<tr>
<td>100, 126</td>
<td>Graphic Design</td>
</tr>
<tr>
<td>27</td>
<td>Greek Organizations</td>
</tr>
<tr>
<td>9</td>
<td>Health</td>
</tr>
<tr>
<td>25</td>
<td>Health Insurance and Fees</td>
</tr>
<tr>
<td>80, 200</td>
<td>Health &amp; Physical Education</td>
</tr>
<tr>
<td>81, 201</td>
<td>Health Promotion</td>
</tr>
<tr>
<td>126, 201</td>
<td>Health Science</td>
</tr>
<tr>
<td>127</td>
<td>Health Sciences Preparatory Programs</td>
</tr>
<tr>
<td>24</td>
<td>Health Services</td>
</tr>
<tr>
<td>11</td>
<td>High School GPA</td>
</tr>
<tr>
<td>132, 201</td>
<td>History</td>
</tr>
<tr>
<td>132</td>
<td>History of the Americas Concentration</td>
</tr>
<tr>
<td>27</td>
<td>Honor Societies</td>
</tr>
<tr>
<td>23</td>
<td>Honors Housing</td>
</tr>
<tr>
<td>35, 205</td>
<td>Honors Program</td>
</tr>
<tr>
<td>84</td>
<td>Hospitality Management &amp; Tourism Concentration</td>
</tr>
<tr>
<td>54</td>
<td>Hospitality Management Business Concentration</td>
</tr>
<tr>
<td>252</td>
<td>How to Undertake a Grade Grievance</td>
</tr>
<tr>
<td>55</td>
<td>Human Resource Management Concentration</td>
</tr>
<tr>
<td>24</td>
<td>Immunization</td>
</tr>
<tr>
<td>44</td>
<td>Incompletes</td>
</tr>
<tr>
<td>134, 203</td>
<td>Information Technology</td>
</tr>
<tr>
<td>148</td>
<td>Instrumental Performance Track</td>
</tr>
<tr>
<td>204</td>
<td>Integrated Math/Science</td>
</tr>
<tr>
<td>33, 205</td>
<td>Interdisciplinary Studies</td>
</tr>
<tr>
<td>135</td>
<td>International Area Studies</td>
</tr>
<tr>
<td>243</td>
<td>International Baccalaureate Exams (IB)</td>
</tr>
<tr>
<td>241</td>
<td>International Baccalaureate Programme</td>
</tr>
<tr>
<td>137</td>
<td>International Business Concentration</td>
</tr>
<tr>
<td>138</td>
<td>International Development Concentration</td>
</tr>
<tr>
<td>138</td>
<td>International Economics Concentration</td>
</tr>
<tr>
<td>36</td>
<td>International Education</td>
</tr>
<tr>
<td>132</td>
<td>International History Concentration</td>
</tr>
<tr>
<td>137</td>
<td>International Politics Concentration</td>
</tr>
<tr>
<td>12, 26</td>
<td>International Students</td>
</tr>
<tr>
<td>36</td>
<td>International Student Services at FSU</td>
</tr>
<tr>
<td>136, 205</td>
<td>International Studies</td>
</tr>
<tr>
<td>36</td>
<td>Internships</td>
</tr>
<tr>
<td>96</td>
<td>Interpretive Biology and Natural History</td>
</tr>
<tr>
<td>35</td>
<td>Intersession</td>
</tr>
<tr>
<td>139</td>
<td>Jazz Studies</td>
</tr>
<tr>
<td>140</td>
<td>Journalism</td>
</tr>
<tr>
<td>7</td>
<td>Lane University Center</td>
</tr>
<tr>
<td>141</td>
<td>Law</td>
</tr>
<tr>
<td>141</td>
<td>Law and Society</td>
</tr>
<tr>
<td>142</td>
<td>Law School Preparation</td>
</tr>
<tr>
<td>26</td>
<td>Leadership and Civic Engagement</td>
</tr>
<tr>
<td>158</td>
<td>Leadership in Psychology</td>
</tr>
<tr>
<td>143, 205</td>
<td>Leadership Studies</td>
</tr>
<tr>
<td>43</td>
<td>Leave of Absence</td>
</tr>
<tr>
<td>144, 206</td>
<td>Liberal Studies</td>
</tr>
<tr>
<td>7</td>
<td>Library</td>
</tr>
<tr>
<td>44</td>
<td>Limited Pass/Fail Option</td>
</tr>
<tr>
<td>114, 192</td>
<td>Literature Concentration</td>
</tr>
<tr>
<td>6</td>
<td>Main Campus</td>
</tr>
<tr>
<td>3, 33</td>
<td>Majors</td>
</tr>
<tr>
<td>33</td>
<td>Majors and Minors</td>
</tr>
<tr>
<td>60, 206</td>
<td>Management Minor</td>
</tr>
<tr>
<td>15</td>
<td>Mandatory Fees</td>
</tr>
<tr>
<td>125</td>
<td>Mapping and Geospatial Sciences Concentration</td>
</tr>
<tr>
<td>146, 209</td>
<td>Mathematics</td>
</tr>
<tr>
<td>23</td>
<td>Meal Plans</td>
</tr>
<tr>
<td>112, 189</td>
<td>Mechanical Engineering</td>
</tr>
<tr>
<td>129</td>
<td>Medical Technology Preparation</td>
</tr>
<tr>
<td>128</td>
<td>Medicine</td>
</tr>
<tr>
<td>iii</td>
<td>Message from the President</td>
</tr>
<tr>
<td>44</td>
<td>Mid-semester Warnings</td>
</tr>
<tr>
<td>47</td>
<td>Minimum Academic Progress Standards for Athletes</td>
</tr>
<tr>
<td>4, 33</td>
<td>Minors</td>
</tr>
<tr>
<td>1</td>
<td>Mission of the University</td>
</tr>
<tr>
<td>32</td>
<td>Modes of Inquiry</td>
</tr>
<tr>
<td>94</td>
<td>Molecular Biology Concentration</td>
</tr>
<tr>
<td>148, 210</td>
<td>Music</td>
</tr>
<tr>
<td>45</td>
<td>NC Grade</td>
</tr>
<tr>
<td>104</td>
<td>Networking Certificate</td>
</tr>
<tr>
<td>103</td>
<td>Networks Concentration</td>
</tr>
<tr>
<td>42</td>
<td>Non-Graded Assessment Requirements</td>
</tr>
<tr>
<td>150, 214</td>
<td>Nursing (RN to BSN)</td>
</tr>
<tr>
<td>129</td>
<td>Nursing Preparation</td>
</tr>
<tr>
<td>130</td>
<td>Occupational Therapy Preparation</td>
</tr>
</tbody>
</table>
Optometry Preparation .......................................................... 128
Organizations ....................................................................... 27
Orientation ........................................................................... 30, 214
Orientation Requirement ..................................................... 30
Other Instructional Sites ........................................................ 9
P-12 Programs ....................................................................... 74
Part-time Study ...................................................................... 35
PASS ...................................................................................... 24
Pass/Fail Option ...................................................................... 44
Payment of Fees ..................................................................... 17
Performing Arts Center ........................................................ 7
Personnel Register .................................................................. 231
Pharmacy Preparation .......................................................... 131
Phase Admission Requirements .......................................... 66
Philosophy .............................................................................. 152, 214
Physical Education ............................................................... 80, 215
Physical Education Center .................................................... 7
Physical Science ................................................................... 217
Physical Therapy Preparation ................................................ 131
Physics .................................................................................. 153, 217
Policies .................................................................................. 241
Policy on Student Residency Classification ......................... 14, 246
Political Science .................................................................... 154, 219
Post-Baccalaureate Study at the Undergraduate Level .......... 37
Pre-Baccalaureate Programs .................................................. 38
Pre-Dental .............................................................................. 128
Pre-Health Professions Option (Biology Majors) ................. 127
Pre-Med ................................................................................. 128
Pre-Veterinary Medicine ...................................................... 128
Probation ............................................................................... 46
Procedures for Review of Alleged Arbitrary and Capricious Grading 252
Professional Organizations ..................................................... 27
Professional Writing ............................................................... 115
Programming Certificate ..................................................... 104
Psychology ............................................................................. 156, 221
Public Administration .......................................................... 159
Public Policy Economics ....................................................... 58
Public Relations ...................................................................... 159
Quantitative Economics ......................................................... 58
Readmission .......................................................................... 13
Recreation and Parks Management ....................................... 83, 223
Refund Policy ........................................................................ 18
Refund/Repayment Policy .................................................... 20
Refund Schedules ................................................................... 17
Regional Resident Tuition Rate .............................................. 15
Registered Student Organizations ......................................... 28
Registration ............................................................................ 40
Religious Organizations ......................................................... 27
Required Medical Form ....................................................... 24
Residence Hall Association .................................................. 23
Residence Hall Contract ....................................................... 23
Residence Hall Damage Deposit ........................................... 16
Residence Life ........................................................................ 23
Residency ............................................................................... 14
Residency Policy ..................................................................... 246
Residency Status Appeals ...................................................... 246
Restricted Grade Forgiveness Policy for Returning Students .... 13
RN to BSN .............................................................................. 150
Room and Board .................................................................... 15
S.A.F.E. Office ........................................................................ 25
SAT/ACT ................................................................................ 11
Satisfactory Progress Standards .......................................... 21
Scholarships .......................................................................... 22
Secondary Teacher Education ............................................. 75
Secure Computing and Information Assurance ..................... 160, 181
Senior Citizen Golden Identification Card ......................... 14
Small Business/Entrepreneurship ........................................ 55, 61
Social Science ......................................................................... 96, 224
Social Work............................................................................. 163, 224
Sociology ............................................................................... 163, 225
Software Development Certificate ....................................... 104
Spanish .................................................................................. 120, 195
Special Academic Services .................................................. 35
Special Coursework Fees ..................................................... 16
Special Departmental Exams ............................................... 241, 245
Special Interest Organizations ............................................. 27
Specialized Facilities ............................................................ 7
Standards Governing Academic Probation and Dismissal ...... 46
State Aid ................................................................................ 17
State Student Work ............................................................. 20
S.T.E.M. Program .................................................................... 23
Student Academic Responsibility ......................................... 38
Student Government Association (SGA) .............................. 26
Student Involvement ............................................................ 26
Student Publications and Media ........................................... 26
Student Records Annual Notification ................................... 253
Student Services ..................................................................... 24
Student Support Services ..................................................... 24
Study Abroad ......................................................................... 35
Study Abroad Programs ......................................................... 36
Summer Session .................................................................... 36
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability Studies</td>
<td>165, 227</td>
</tr>
<tr>
<td>Teacher Education Programs</td>
<td>65</td>
</tr>
<tr>
<td>Teacher Education Report Card</td>
<td>64</td>
</tr>
<tr>
<td>Teaching Certification</td>
<td>38</td>
</tr>
<tr>
<td>Teaching of Writing Emphasis</td>
<td>116</td>
</tr>
<tr>
<td>Technology Services</td>
<td>8</td>
</tr>
<tr>
<td>Testing</td>
<td>42</td>
</tr>
<tr>
<td>Theatre</td>
<td>166, 227</td>
</tr>
<tr>
<td>The Campus and Its Surroundings</td>
<td>6</td>
</tr>
<tr>
<td>Therapeutic Recreation Concentration</td>
<td>85</td>
</tr>
<tr>
<td>Tourism Concentration</td>
<td>84</td>
</tr>
<tr>
<td>Transcripts of Records</td>
<td>42</td>
</tr>
<tr>
<td>Transfer Policies</td>
<td>13, 248</td>
</tr>
<tr>
<td>Transfer Students</td>
<td>12</td>
</tr>
<tr>
<td>Tuition and Fees</td>
<td>15</td>
</tr>
<tr>
<td>Tuition and Fees for Collaborative Engineering Programs</td>
<td>15</td>
</tr>
<tr>
<td>Tuition Deposit</td>
<td>17</td>
</tr>
<tr>
<td>TuitionPay Plan</td>
<td>17</td>
</tr>
<tr>
<td>Tutoring Center</td>
<td>24</td>
</tr>
<tr>
<td>Undergraduate Degree Requirements</td>
<td>29</td>
</tr>
<tr>
<td>Undergraduate Institutional Learning Goals</td>
<td>2</td>
</tr>
<tr>
<td>University History</td>
<td>10</td>
</tr>
<tr>
<td>University Organizations</td>
<td>27</td>
</tr>
<tr>
<td>University Programming Council</td>
<td>26</td>
</tr>
<tr>
<td>University System of Maryland - Hagerstown</td>
<td>8, 33</td>
</tr>
<tr>
<td>Upward Bound</td>
<td>25</td>
</tr>
<tr>
<td>Urban and Regional Planning</td>
<td>165</td>
</tr>
<tr>
<td>USM-Hagerstown</td>
<td>8, 33</td>
</tr>
<tr>
<td>USM Inter-institutional Registration</td>
<td>36</td>
</tr>
<tr>
<td>Veterans Services</td>
<td>24</td>
</tr>
<tr>
<td>Veterinary Medicine Preparation</td>
<td>128</td>
</tr>
<tr>
<td>Vocal Performance Concentration</td>
<td>148</td>
</tr>
<tr>
<td>Voluntary Meal Plans</td>
<td>16</td>
</tr>
<tr>
<td>Wildlife &amp; Fisheries</td>
<td>169</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>20, 42</td>
</tr>
<tr>
<td>Women’s Studies</td>
<td>170, 229</td>
</tr>
<tr>
<td>Work-Study Program</td>
<td>18</td>
</tr>
<tr>
<td>Writing</td>
<td>112</td>
</tr>
</tbody>
</table>