



Undergraduate Catalog 2013-2015

FSU at a Glance

Majors

Accounting
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 & Literature
Geography
Health & Physical Education
History
Information Technology
International Studies
Interpretive Biology and Natural History
Law and Society
Liberal Studies
Mass Communication
Mathematics
Mechanical Engineering
Music
Nursing (RN to BSN)
Philosophy
Physics
Political Science
Psychology
Recreation & Parks Management
Secure Computing & Information Assurance
Social Science
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

Table of Contents

Accreditation	ii
Message From the President	iii
Academic Calendar	iv
The University	1
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
Expenses	15
Financial Aid	18
Scholarships	22
Campus Life and Activities	23
Residence Life	23
Student Services	24
Student Involvement	26
University Organizations	27
Academic Life	29
The Academic Program	29
Academic Regulations & Procedures	38
Programs of Study	47
The College of Business	47
The College of Education	61
FSU's Teacher Education Report Card	62
The College of Liberal Arts & Sciences	79
Inter-College Programs	151
Course Descriptions	163
Personnel Register	221
Policies	231
Index	243

On the cover: FSU students and faculty tour the Great Wall of China as part of their "Impact China" coursework, one of many opportunities to study other countries and cultures.





Undergraduate Catalog 2013-2015

FROSTBURG STATE UNIVERSITY

101 Braddock Road

Frostburg, Maryland 21532-2303

www.frostburg.edu

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Frostburg State University is a constituent institution of the University System of Maryland.

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.
- 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.

Welcome to Frostburg State University

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 Advising Center, our Orientation Program or our Learning Communities, 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.



Dr. Jonathan Gibralter
President, Frostburg State University

Jonathan Gibralter, President

Undergraduate

Academic Calendar 2013-2014

For all deadlines: action must be completed by 4:30 p.m. on the date specified.

Fall Semester 2013

March 25	Registration Guidelines Booklet Available
April 1-19	Fall 2013 Registration Period
April 19	Last Day to Register Without Late Fees
August 12	Fall Tuition Payment Must Be Received in Billing Office
August 13	De-Registration May Occur – Late Payment Begins
August 29	Non-Registered Transfers and Freshmen Testing
August 30	Non-Registered Transfers and Freshmen Advising and Registration
September 2	Labor Day – Limited Services Available
	Select Offices Open in Afternoon
September 3	Classes Begin
September 3-10	Drop/Add Period and Late Registration (PAWS and Academic Departments)
	All Unpaid Accounts Are Charged \$60 in Late Fees
September 10	Last Day to Add Courses
September 23	Last Day to File Pass/Fail Option
October 15	Last Day for Undergraduate Grade Changes for Spring 2013 and Summer 2013 (Including Removal of "I" Grades)
October 15	Last Day for Graduate Students to Withdraw From Courses With a "W"
October 16	Mid-Semester Warnings Available in PAWS
October 25	Last Day to Register for Six-Week Intensive Web Courses
October 28	Spring 2014 Registration Guidelines Booklet Available
October 30	First Day of Intensive Web Courses
November 4-22	Spring 2014 Registration (Without Payment)
November 4-December 16	Intercession 2014 Registration (With Payment)
November 8	Last Day to Withdraw From Undergraduate Courses with "W"
November 26	Residence Halls Close at 7 p.m.
November 27-December 1	Thanksgiving Recess
December 1	Residence Halls Open at Noon
December 2	Classes Resume
December 13	Last Day to Withdraw From Courses With "WF"
December 13	Last Day of Classes
December 14	Common Exams
December 15	Reading Day
December 16-20	Final Exams
December 20	Residence Halls Close at 7 p.m.
December 21	Commencement

Intercession 2014

November 4	Registration Begins (Payment Is Due at Time of Registration or Enrollment in a Payment Plan)
December 16	Last Day to Register Without Late Fees
December 16	Last Day to Withdraw With a Refund (Spring Financial Aid May Not Be Used for Intercession)
December 17-January 3	Registration With Late Fees (\$60)
December 18	Course Cancellations
January 2	Classes Begin – No Refund
January 6	Last Day to Add a Course
January 6	Last day to Drop a Course Without "W" – No Refund
January 15	Last Day to Drop a Course With a "W" – No Refund
January 20	Martin Luther King Jr. Holiday – No Classes, Offices Closed
January 24	Last Day of Classes

Spring Semester 2014

October 28	Spring 2014 Registration Guidelines Booklet Available
November 4-22	Spring 2014 Registration Period
November 22	Last Day to Register Without Late Fees
December 20	Spring Tuition Payment Due – Undergraduate Students (Must Be Received in the Billing Office)
December 21	Late Payment Fee Is Assessed – Undergraduate Students
January 20	Martin Luther King Jr. Holiday – No Classes, Offices Closed
January 23	Testing (New, Non-Registered Students Only)
January 24	Advising and Registration (New, Non-Registered Students Only)
January 27	Classes Begin
January 27-31	Drop/Add Period and Late Registration (PAWS and Academic Departments)
January 31	Last Day to Add Courses
February 14	Last Day to File Pass/Fail Option
March 10	Last Day for Any Undergraduate Grade Change for Fall 2013 and Intercession 2014 (Including Removal of Incomplete Grades)
March 10	Last day for Graduate Students to Withdraw From Courses With a "W"
March 11	Mid-Semester Warnings Available in PAWS
March 14	Residence Halls Close at 7 p.m.
March 15-23	Spring Break – University Closed
March 23	Residence Halls Open at Noon
March 24	Classes Resume
March 24	Fall 2014 Registration Guidelines Booklet Available
March 25	Last Day to Register for Spring 2014 Six-Week Intensive Courses
March 31	First Day of Intensive Web Courses
March 31-April 18	Fall 2014 Registration Period
April 11	Last Day to Withdraw From Undergraduate Courses With "W"
May 13	Last Day to Withdraw From Courses With "WF"
May 13	Last Day of Classes
May 14	Reading Day
May 15-16	Final Exams
May 17	Common Finals
May 19-21	Final Exams
May 24	Commencement

Summer Sessions 2014

See the Summer Session Schedule Booklet for complete calendar.

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 pending as of May 2011.

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)
- Sexual Harassment Policy (PN 1.004 Revised)
- 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)

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

- apply different methods of inquiry from various perspectives and disciplines to gather information;
- comprehend and apply various research methods to evaluate information critically;
- analyze complex issues and construct logical conclusions;
- use problem-defining and problem-solving skills by synthesizing ideas within and across disciplines;
- 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

- comprehend and critically interpret 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 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

- demonstrate technical and analytic skills that are appropriate to your field of study and applicable to future careers;
- acquire research skills and specialized vocabulary for critical discourse;
- demonstrate competencies and achievements appropriate to your field of study;
- 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

- demonstrate respect and tolerance for other cultures and societies;
- make professional and 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;
- 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

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



Old Main

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 44 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
- human resource management
- international business
- marketing
- small business/entrepreneurship

Economics

- business economics
- public policy economics
- quantitative economics

College of Education

Athletic Training

Early Childhood/Elementary Education

Elementary Education

Elementary/Middle School Dual Certification

Exercise & Sport Science

Health & Physical Education

Recreation & Parks Management

- adventure sports
- community program delivery
- hospitality management & tourism
- therapeutic recreation

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

History

- international history
- history of the Americas

Information Technology

- ▶ accounting
- ▶ business information technology
- ▶ computer security
- ▶ graphic arts
- ▶ mass communication

Interpretive Biology & Natural History

Law & Society

- criminal justice
- legal 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

Inter-College Programs

International Studies

- international business
- international development
- international economics
- international politics

Liberal Studies

Social Science+

- = concentration
- ▶ = track
- + = teaching certification option

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
Public Relations
Sustainability Studies
Women's Studies

Inter-College

Leadership 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
Education: Secondary Programs

College of Liberal Arts & Sciences

Addictions Counseling
B.S. Physics/M.S. Applied Physics Dual Degree
Child and Family Counseling
Computer Print Graphics
Dental Hygiene Preparation
Engineering: Dual Degree Program
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

Inter-College

Honors Program
Physical Therapy Preparation

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 - Inter-College)

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 Advising and Career Services is here to assist you if you have not declared a major or are considering changing your major. The Center publishes a guide to selecting a major and provides counseling to assist your search.
- Majors Fair: Annually early in the fall semester
- Career Day: Annually in October
- DISCOVER: An online career guidance program
- FSU Connections: Learning communities
- Faculty in departments offering majors which interest you
- ORIE 101: Introduction to Higher Education
- Office of Student and Educational Services
- Counseling and Psychological Services
- Programs for Academic Support and Study (PASS)

Declaring a Major

If you are a first time college student and want to officially declare your major, make an appointment with the chair of the department that offers the program that interests you early in your first semester of enrollment. If you are a transfer student, you may officially declare your major at the time of admission.

Many students become concerned about declaring the “right” major, but a major is never a final choice. You may change majors as many times as you like. Other students feel uncomfortable because they are not ready to declare a major. You may take up to 60 credits, however, before you are expected to declare a major.



Getting to FSU

From Baltimore and east:

take I-70 west to I-68 west at Hancock, MD. Continue to the second exit for Frostburg, Exit 33 (Midlothian/Braddock Road). Bear right and proceed approximately one mile to the main entrance to the FSU campus.

From Morgantown, WV, and west:

take I-68 east to Exit 33 (Midlothian/Braddock Road). Turn left onto Braddock Road and proceed approximately one mile to the main entrance to the campus.

To the USM at Hagerstown:

take I-70 west from Baltimore and exit onto I-81 north. Take the Downtown Hagerstown exit and follow Route 40 east. Route 40 through Hagerstown is also named Washington Street. The University System of Maryland at Hagerstown is located at 32 W. Washington St..

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 courses at the University System of Maryland at Hagerstown, and undergraduate programs at the Anne Arundel Community College Regional Higher Education Center at Arundel Mills, and on the Catonsville Campus of the Community College of Baltimore County.

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.



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 at Hagerstown.

The Main Campus

Our classroom buildings include 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.

Forty-eight percent of 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 Sub Zero in Sowers Hall.

Executive offices are located in the Hitchins Administration Building.

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, Programs for Academic Support and Studies (P.A.S.S.), Disability Support Services and Student Support Services. Sand Spring Hall is the temporary home to Counseling and Psychological Services, Career Services, the Career Resource Center, Veterans' Affairs, Upward Bound and the Regional Math/Science Center. The University Children's Center has its own building next door.

Driving Times to Frostburg

Baltimore	2 1/2 hrs.
Frederick	1 1/2 hrs.
Hagerstown	1 hr.
Harrisburg	2 hrs.
Johnstown	1 hr.
Morgantown	1 hr.
New York	6 1/2 hrs.
Norfolk	6 1/2 hrs.
Philadelphia	4 1/2 hrs.
Pittsburgh	2 1/2 hrs.
Richmond	4 hrs.
Salisbury (MD)	5 1/2 hrs.
Somerset (PA)	3/4 hr.
Washington, D.C.	2 1/2 hrs.



Lane University Center

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
- Consortium of 16 libraries within the University System of Maryland and Affiliated Institutions (USMAI), which provides additional research materials
- ILLIAD interlibrary loan services to request research materials from other libraries beyond USMAI
- Reference assistance onsite or online through Maryland AskUsNow chat reference or Ask a Librarian email at www.frostburg.edu/lewis-ort-library/asklib
- Circulating art prints, DVDs, CDs, VHS tapes and teacher materials
- Microfilm reader/printer/scanners available for historic newspaper and periodical collection
- Selective depository for U.S. government documents and maps and electronic repository of Maryland government documents
- 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 for use of the library's resources
- 100 Internet work stations, 4 iMacs, a 30-station electronic classroom, public scanners and wireless Internet access
- Individual study rooms, small group computer rooms and a smart classroom 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 new University Store, The Appalachian Station restaurant, The Loft and a Java City Coffee bar. 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
- 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.



FSU's Performing Arts Center



Academic Computing & Instructional Technologies

The Office of Academic Computing and Instructional Technologies (ACIT) 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 distance education, instructional design, help desk, PC maintenance, lab support, computer purchases, software licensing, website management, mobile apps, and multi-media. Help Desk support provides assistance for any technical issue including BlackBoard, PAWS, e-mail, Internet connectivity, etc.

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 Pullen Hall. 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 Dunkle Hall (access via student ID only).

Distance Education

The principal mission of distance 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 distance education.

Frostburg State University's online courses, 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.

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.

ACIT 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 at Hagerstown

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

USM institutions currently offer 15 undergraduate and 8 graduate degrees onsite. Baccalaureate programs offered by FSU at USMH include: business administration, early childhood education, psychology, sociology and liberal studies. Graduate programs include: elementary and secondary education.

USMH is a state-of-the-art facility providing access to on-site academic advising, a career center, a writing center, 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 USMH at 240.527.2060. For further information about FSU's Undergraduate programs at USMH, call 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 Catonsville campus of 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 MS in recreation and parks management is offered online, and the MBA and the MEd in Special Education offer online options.

University Children's Center

The University operates a licensed Pre-School/Extended Child Care Program for the children of students, employees and community residents from Monday through Friday, 7:45 a.m. to 5:00 p.m. Developmentally appropriate experiences are provided for 3-, 4- and 5-year-olds in art, math, science, cooking, music and movement, dramatic play, large muscle and fine motor activities. The Center is located on University Drive (across from Bobcat Stadium). For more information, call 301.687.4027.

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	Townpeople 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	Our teacher training program expanded from two to three years, and then from three to four years in 1934.
1935	<ul style="list-style-type: none"> ● The institution's name changed to State Teachers College at Frostburg. ● 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, Hitchens 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	<ul style="list-style-type: none"> ● We joined the University System of Maryland, which is comprised of 11 of the State's 4-year institutions and one research institution. ● The Center in Hagerstown opened.
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 Gibalter 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.

Admission

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 of \$30 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); 3 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. For students entering ninth grade in fall 2011, 4 units of mathematics are required. 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.

Through advanced placement, applicants may have completed advanced courses before high school and opted out of certain required courses in high school. If you have taken advanced courses, the University assumes minimum requirements have been met.

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

Office of Admissions

114 Pullen Hall

301.687.4201 • FAX 301.687.7074

e-mail: FSUadmissions@frostburg.edu

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 which will enable you to function successfully at the University. You are expected to reach these levels within two semesters.

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.



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 web site.

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 application materials (301.687.4714).

- 1) An application for admission can be submitted online at www.gobobcats.frostburg.edu. The \$30 (U.S. currency only) non-refundable application fee can be paid online.
- 2) If your native language is not English, you are required to demonstrate English language proficiency. The University requires a minimum TOEFL score of 79 (iBT) or a minimum IELTS score of 6. Additional options for English language proficiency can be found on the FSU website.
- 3) Provide official or notarized secondary school academic records which show grades earned, annual mark sheets, examination sheets and leaving certificates as they apply in your home country.
- 4) Have transcripts for institutions other than American institutions translated and evaluated by an approved evaluation service. No final action will be taken on your application for admission until the evaluation has been received.
- 5) Complete the Certification of Financial Support form and submit it to the Office of Admissions. This form attests that either you or your sponsor is aware of the educational and living expenses and is



prepared to provide the necessary funds. You must pay all educational costs for the semester in full at registration.

- 6) International students on F-1 and J-1 visas are required to purchase health insurance for the time they are in the United States. Cost of health insurance will be included on the student's bill each term. The Center for International Education enrolls students in the insurance program.
- 7) All required documents should be on file by June 1 for Fall admission, or October 15 for Spring admission. You cannot be granted admission or issued an I-20 until all required information has been received by the Office of Admissions. If you are an international student residing outside the United States, you should not attempt to come to Frostburg State University before receiving a formal letter of admission and an I-20 issued by Frostburg State University.

More detailed information about F-1 and J-1 visa category requirements may be found on the university's web site.

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 \$30 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.
- 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.

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.

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



RESIDENCY

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 web site: www.ums.edu/regents/bylaws/SectionVIII/VIII270.html

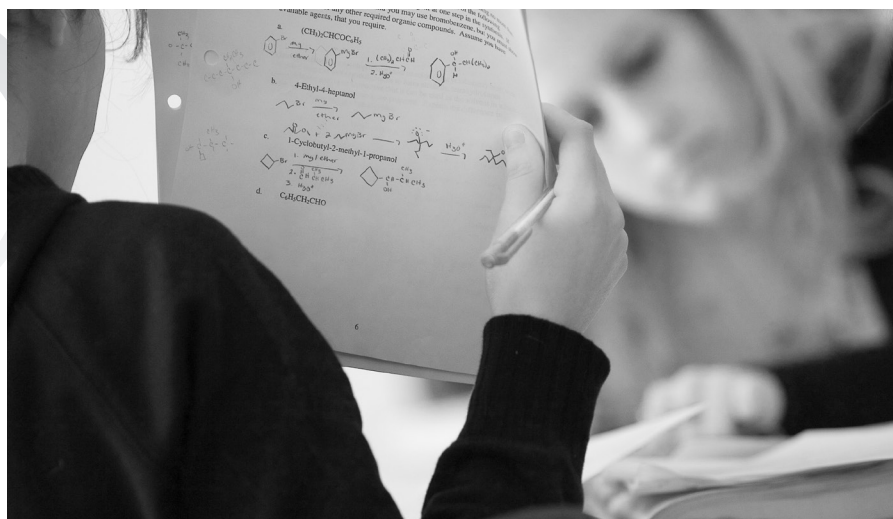
Residency status is determined for first-time entering students by the Office of Admissions. Students seeking a review of their residency status will be required to respond to a petition available through the Office of Admissions.

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 2013, 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 2013-2014 only. Please see appropriate Academic Schedule Booklets for 2014-2015 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 \$2,815 per semester plus all other applicable fees at the University. Tuition for out-of-state students is \$8,139 per semester plus all other applicable fees at the University. Tuition for residents of the contiguous counties* is \$6,083 per semester plus all other applicable fees at the University.

Evening and part-time tuition is \$233 per credit hour for resident undergraduate students, \$348 for contiguous county undergraduates, \$457 per credit hour for non-resident undergraduate students, \$340 per credit hour for resident graduate students, and \$437 per credit hour for non-resident graduate students. Doctoral tuition per credit hour is \$468 for resident students and \$586 for non-resident students.

Summer tuition is \$233 per credit hour for resident undergraduate students, \$348 for contiguous county undergraduates, \$457 per credit hour for non-resident undergraduate students, \$340 per credit hour for resident graduate students and \$437 per credit hour for non-resident graduate students. Doctoral tuition per credit hour is \$468 for resident students and \$586 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

*Contiguous counties include Berkeley, Grant, Hampshire, Jefferson, Mineral and Morgan counties in West Virginia; Bedford, Fulton, Franklin and Somerset counties in Pennsylvania; and Loudoun County, Virginia.

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.

Room and Board

The cost for room and board for each University residence hall student varies from \$7,056 per year to \$9,910 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

Undergraduate Tuition & Fees 2013-2014

	1st Semester	2nd Semester	TOTAL	
TUITION - FULL TIME (12 cr. or more)				
Maryland Residents	\$2,815	\$2,815	\$5,630	
Out-of-State Residents	8,139	8,139	16,278	
Contiguous County Residents	6,083	6,083	12,166	
MANDATORY FEES				
Technology Fee	\$79	\$79	\$158	
Activities Fee	158	158	316	
Athletic Fee	381	381	762	
Auxiliary Facilities Fee	270	270	540	
Student Union Operating Fee	143	143	286	
Transportation Fee	18	18	36	
Total Fees	\$1,049	\$1,049	\$2,098	
TOTAL TUITION AND FEES				
Maryland Residents	\$3,864	\$3,864	\$7,728	
Out-of-State Residents	9,188	9,188	18,376	
Contiguous County* Residents	7,132	7,132	14,264	
ROOM CHARGES				
Frederick, Westminster	double	\$1,926	\$1,926	\$3,852
All other halls	double	1,881	1,881	3,762
	small single	2,487	2,487	4,974
	large single	2,699	2,699	5,398
BOARD CHARGES				
Gold Plan with \$200 bonus	\$2,114	\$2,114	\$4,228	
Silver Plan 19 meals/week w/\$100 bonus	1,966	1,966	3,932	
14-meal with \$100 bonus	1,887	1,887	3,774	
12-meal with \$250 bonus	1,959	1,959	3,918	
10-meal with \$75 bonus	1,647	1,647	3,294	
Super 15 Plan with \$300 bonus*	2,256	2,256	4,512	
*Default residential meal plan				
TOTAL TUITION, FEES, ROOM AND BOARD**				
Maryland Residents	\$7,904	\$7,904	\$15,808	
Out-of-State Residents	13,228	13,228	26,456	
Contiguous County* Residents	11,172	11,173	22,344	
**based on \$3,852 room rate and \$4,228 board rate				
subject to change				

EXPENSES

Other fees & expenses

See detailed explanation above.

Tuition Pay Plans	\$60-\$75
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
Study Abroad Admins. Fee	\$150
Vehicle Registration	- day \$40 per year
	- evening only \$10 per year
In-House Deferment	\$150 per semester

Special Instruction 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 128, 150, 160, 161, 200, 211, 230, 302, 304, 305, 309, 310, 311, 312, 313, 314, 321, 322, 334, 340, 401, 404, 406, 410, 411, 412, 417, 421, 422, 423, 425, 426, 427, 430, 435, 436, 438, 439, 440, 445, 460, 484)	\$15
Biology (BIOL 109, 149)	\$20
Business Admin. (BMIS 320)	\$25
Chemistry (CHEM 100, 113, 201)	\$20
Chemistry (CHEM 202, 301, 302, 304, 305, 320, 411, 420, 421, 445, 446, 456, 457, 493, 499)	\$25
Computer Science (COSC 100, 110, 220, 330)	\$25
Geography (GEOG 103, 113, 207, 340, 413, 430, 433, 445, 470)	\$20
Interdisciplinary Studies (IDIS 150 Outdoor Leadership)	\$115
Mass Comm. (MCOM 101, 287, 387)	\$50
Mass Comm. (MCOM 212, 213, 250, 313, 465, 499 audio)	\$50
Mass Comm. (MCOM 311, 487, 488, 499 video projects)	\$50
Mathematics (MATH 104, 109, 119)	\$20
Mathematics (DMVT 095, 100) Web	\$100
Music 315, 319, 321, 327, 329, 330, 331, 335, 336, 337, 339, 340	\$10
Music Applied 390, 493	\$150
Music Applied 490	\$300
Orientation (ORIE 101)	\$120
Physical Science (PHSC 101, 203)	\$20
Physics (PHYS 215, 261)	\$20
Sociology (SOCI 310/SOWK 310)	\$25
Student Teaching Internship	\$350
Summer Orientation Program	\$125

Voluntary Meal Plans

(non-residential students)

Just-a-Nibble (45 meals/semester) plus \$200 Bonus Dollars	\$611/semester
Snack Size (60 meals/semester) plus \$150 Bonus Dollars	\$634/semester
Quick Bite (75 meals/semester) plus \$350 Bonus Dollars	\$915/semester
Full Meal Deal (100 meals/semester) plus \$225 Bonus Dollars	\$924/semester

students pay. For information on other fees and expenses related to summer and graduate programs, refer to the respective catalogs and bulletins.

Activities Fee: An activities fee of \$158 per semester for full-time students or \$25 for part-time students is collected to support student publications, the campus radio station, social activities, student government and a balanced program of cultural events.

Athletic Fee: An athletic fee of \$381 per semester for full-time students and a \$41 per credit hour fee for part-time students is used to support the University's program in intercollegiate and intramural athletics.

Auxiliary Facilities Fee: An auxiliary facilities fee of \$270 per semester for full-time students and \$24 per credit hour for part-time students is assessed for construction expenses of the auxiliary facilities.

Student Union Operating Fee: A Student Union operating fee of \$143 per semester for full-time students and \$17 per credit hour for part-time students is charged for operating expenses of the Lane Center.

Transportation Fee: A Transportation fee of \$18 per semester for full-time students and \$2 per credit hour for part-time students is charged, allowing students to ride Allegany Transit Authority buses by showing a student ID.

Technology Fee: A Technology fee of \$79 per semester for full-time students and \$12 per credit hour for part-time students is assessed to fund technology initiatives for student enhancement.

Other Fees and Expenses

Late Payment Fee: A late payment fee of \$30 is charged for payments received after the established payment deadline.

Late Registration Fee: A late registration fee of \$30 is charged for not registering as prescribed or if payment is received after the due date.

Payment Plans are available through a partnership with Tuition Pay. An annual (10-month) plan is available for \$75. A 5-month semester plan is \$75 per semester. A 3-pay plan costs \$60 per semester.

Career Services Credential Fee: A \$20 fee allows the student to establish a credential file through the Office of Career Services. This is a one-time optional fee.

Duplicate Copies: A \$3 fee is charged for each duplicate statement of fees (or other receipt) requested. A \$20 fee is charged for each duplicate ID Card.

Returned Payment Fee: A \$30 fee is charged whenever a payment of any obligation is returned for any reason. Article 27, Section 142 of the Annotated Code of Maryland states that anyone who obtains money, etc., by bad check is subject to prosecution. All payments returned to the University by the bank as "unpaid" (this includes payments in dispute or uncollected funds) must be paid within seven days of the University's notification to the student.

Motor Vehicle Registration: A \$40 motor vehicle registration fee is charged for students registering a vehicle. Vehicle registration for summer school and evening classes is \$10.

Study Abroad Administrative Fee: A non-refundable administrative fee that covers all study abroad administrative costs of \$150 (check with the CIE website for specific information on costs).

In-House Deferment: Students with a balance due after 10 business days will be charged \$150, plus late fees for enrollment – two payments.

Special Course Work Fees

The following special fees for course work are non-refundable at the end of the free drop-add period:

Private Music Fee: Music students desiring private study of organ, piano, other instruments, or voice are charged \$150 per credit hour.

Additional Course Fees: Course fees and studio fees range from \$10-\$300 for costs of the course.

Special Instruction Fees: Fees of \$10, \$20, \$25 and \$100 respectively for students enrolled in GEP science laboratory courses and courses utilizing the Academic Computing facility are collected to cover laboratory supplies, equipment, software. Fees are also charged to cover art supplies in certain studio courses, course materials or field trips.

Student Teaching Internship Fee: A student teaching internship fee of \$350 will be charged for each quarter or semester at the beginning of the semester during which student teaching is scheduled.

Advance Fees and Deposits

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 acceptance fee 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 acceptance fee is non-refundable; but when you enroll as a student, it will be deducted from what you owe 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 deferment fee, a \$30 late payment and a \$30 late registration.

Deferred Payment Plans

The TuitionPay Plan From Sallie Mae

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

Refund Schedules

Fall and Spring Semester

Before the end of each registration period	100% tuition refunded
Before the 15th calendar day after the official start of classes for that session	80% tuition refunded
From the 15th day until the end of third week after the official start of classes	60% tuition refunded
During the 4th week after the official start of classes	40% tuition refunded
During the 5th week after the official start of classes	20% tuition refunded
At the end of the 5th week after the official start of classes	0% tuition refunded

Fee Refund Schedule (including summer session)

Application fee	0% refund
Board fee	- Up to mid-semester - After mid-semester
	prorated on a weekly basis plus one week 0% refund

Summer Sessions

Before the end of the summer registration period	100% tuition refunded
Before the end of one-fifth of the length of the session, but in no case beyond the 7th calendar day of the session	80% tuition refunded
Before the end of two-fifths of the length of the session	40% tuition refunded
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	0% tuition refunded

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

installments, rather than one lump-sum payment. It's simple and convenient.

How to Get Started

Just visit www.TuitionPayEnroll.com, 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 anytime — day or night.

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

For more information, visit www.TuitionPay.com, 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 further 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.

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.

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 on-line 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.

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.

Office of Financial Aid

114 Pullen Hall: 301.687.4301

FAX 301.687.7074

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.

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 Perkins Loan

Students enrolled at least half-time at FSU who demonstrate significant financial need



Educational Expenses

	In-State Resident	Contiguous County Resident**	Out-Of-State Resident
Tuition*	\$5,630	\$12,166	\$16,278
Fees*	2,098	2,098	2,098
Room and Board*	7,990	7,990	7,990
Books	1,200	1,200	1,200
Transportation	750	750	950
Personal	1,000	1,000	1,000

*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.

** Out-of-state discount for full-time students from the following counties in PA: Bedford, Franklin, Fulton and Somerset; in VA: Loudoun; and in WV: Berkeley, Grant, Hampshire, Jefferson, Mineral and Morgan

by filing the Free Application for Federal Student Aid are eligible for a Perkins Loan. This program provides long-term loans at a 5% interest rate with repayment beginning nine months after graduating or leaving school for other reasons. The Financial Aid website gives detailed information regarding deferment and cancellation provisions. Borrowers should be aware that if default occurs and accounts are transferred to the Office of Education for collection purposes, grade transcripts from the Registrar's Office will be held until the debt is satisfied.

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 3.4% for 2012-13 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.

A graduate or professional student may borrow up to \$8,500 per year. The maximum outstanding debt for graduate or professional students, which includes any outstanding Federal Subsidized Stafford Loan borrowed for undergraduate study, is \$65,500 (excluding unsubsidized loans). The interest rate for graduate students is 6.8%

To apply for a Federal Subsidized Stafford Loan, you must complete a Free Application for Federal Student Aid and other forms as required. As with the Perkins Loan, the amount of your loan is based on several factors: amount of documented need, enrollment status and academic progress.

All first-time Federal Subsidized Stafford Loan borrowers must complete an entrance interview. 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 6.8% rate. 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 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.

Note: The Department of Education requires that student loan borrowers be provided with information on the availability of the Department's Office of the Ombudsman for student loans. This office provides information to students who have had problems resolving issues related to a student loan. FSU recommends that borrowers try contacting the Student Financial Assistance Ombudsman if this occurs. The U.S. Department of Education's Ombudsman Office can propose solutions that may help you and other parties (such as lenders, guaranty agencies, etc.) come to a final agreement. For additional information, contact this office at 202.401.4498 or toll-free at 1.877.557.2575. Their Web site is <http://ombudsman.ed.gov>



FINANCIAL AID

Federal Plus Loans

(Parent Loan for Undergraduate Students)

The Federal Plus Loan is a federal loan program that allows parents of dependent, undergraduate students to borrow an amount equal to the cost of education, minus other aid.

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 award 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
- Senatorial Scholarship
- Delegate Scholarship

Applicants for these awards must:

- (1) Be a Maryland resident
- (2) Most require that you file a Free Application for Federal Student Aid by March 1.

For requirements and applications specific to a particular scholarship, contact the FSU Financial Aid Office or the Maryland Higher Education Commission (410.260.4565).

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, Perkins Loan, 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:

Total Credits Earned (including transfer credits)

0-14	1.00
15-29	1.40
30-44	1.60
45-59	1.80
60- above	2.00

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, Intercession 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

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.

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.



Campus Life & Activities

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 on-line 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 for applying for housing is www.welcome-mat.net/frostburg_terms and may also be found on the Residence Life website.

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.

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.



Westminster Residence Hall

Student Services

Student Services 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 and Educational Services (301.687.4311) for more information about these services.

Advising and Career Services

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

Special advising is provided for new transfer students, undeclared freshmen, sophomores and students seeking a new major. We work collaboratively with faculty, staff and student organizations to access pertinent information and services for students in transition.

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 Center for Advising and Career Services 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 that are representing their major clubs and organizations.
- Career Expo held during Homecoming weekend that brings FSU alums 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.
- Advising and transition assistance for:
 - undeclared students,
 - transfer students, and
 - students seeking a new major.
- Resource library.
- Alumni networking.

- classroom presentations/center workshops/individual sessions.
 - on-campus recruiting.
 - employer information sessions.
 - Credential file program.
 - experiential education such as the Disney College Program, the Washington center, international internships and many other internships.
- (301.687.4403)

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 notetakers, electronic textbooks, scribe/reader services, testing accommodations, Kurzweil and advocacy. Students must present documentation of their disability and meet with the director to qualify for services.

(301.687.4443; 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 minority 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)



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 instruction;
- time management and organization instruction;
- instruction for developmental mathematics and critical reading; and
- individual tutoring.

(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:

- individual and group tutoring,
- math and writing assistance,
- workshops and
- in-class presentations.

(301.687.4066)

Student Support Services

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;
- student financial aid assistance;
- professional tutoring;
- academic success workshops;
- educational and cultural event tickets;
- assistance in developing educational goals; and
- career exploration and guidance.

(301.687.4481; FAX 301.687.4671)

Regional Math/Science Center

The RMSC serves traditionally under-represented high school students from the four westernmost counties in Maryland as well as Baltimore City. The program is designed to help these students develop the skills necessary for entering and succeeding in post-secondary education – specifically in the areas of math and science. Students attend a residential program at FSU, as well as an academic year component which includes tutoring and follow-up activities.

For information and an application, call 301.687.4295 or toll-free at 1.800.646.6004 or visit our website at www.frostburg.edu/clife/mscenter.

Upward Bound

Upward Bound provides academic and personal development programs for 89 educationally and/or economically disadvantaged high school students in Allegany County. Eligible students attend academic and enrichment programs on the University campus both during the school year and during a residential summer program.

For more information, call 301.687.4994 or visit our website at www.frostburg.edu/clife/ubp.

Veterans Affairs

This office assists anyone eligible for Veterans Administration educational benefits. If you are a new or re-entering student who is or may be eligible for these benefits, please contact Veteran Affairs 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/clife/vet.

(301.687.4409)

Health Services

- **Required Medical History:** When you are accepted at the University, you will receive a packet of information, including instructions on how to complete your medical history form online (<https://bradyhealth.frostburg.edu>). A complete physical examination by your health care provider is recommended but only required for student athletes.
- **Required Immunization Form:** The University requires all students to be immunized for rubeola, rubella, mumps, diphtheria and tetanus and to have documentation of these up-to-date immunizations on file in the Brady Health Center prior to registration. Tuberculosis risk assessment is also required. If you were born before 1957, you are exempt from documentation for rubeola, rubella and mumps.

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

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.
- **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 at the center by cash, check or Bobcat Express, or the charges can be billed to the student's account. Health insurance is strongly recommended. If you do not have health insurance, the Brady website (www.frostburg.edu/brady) has a link to a United Health Plan through the American College Student Association.
- **Services:** The Health Center is accredited by the AAAHC (Accreditation Association for Ambulatory Health Care). The services are available to all currently enrolled students. The health services program offers visits for common illness and minor injury, women's health, STI/HIV testing, allergy injections, immunizations and wellness programs. Referrals to community agencies, hospitals and specialists are provided as indicated. More detailed information regarding health center services can be found at the website listed above. Also, all required forms can be downloaded from the website.

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 graduate practicum students. 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 or Health Services Offices.
- **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. The staff also offers a variety of training programs for University employees.
- **University Testing Program:** The Counseling Service provides information, applications, and 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. Communities Office, 301.687.4761) that provides substance abuse prevention programs and activities.

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 Bookstore, a bank, an information center, a lounge, game room, ticket office, meeting rooms, a computer lab, a fitness center, and a food court featuring Taco Bell, Chick-fil-A, Smoke House, a salad station, and Asian cuisine are all located here. The campus community uses the Lane University Center for gathering with friends as well as for attending 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, Family Weekend, First Night and Last Night Frostburg each semester 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.

International Students

International students can receive help in dealing with the Immigration and Naturalization Service, learning about local customs and culture, adjusting to campus life and understanding the U.S. educational system. For advising, programs and further information, please contact the Center for International Education at 301.687.4714.

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 WFWM, 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 Empire 8 conference 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 Greek Life. 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

Major Organizations

Black Student Alliance
Residence Hall Association
Student Government Association
University Programming Council

Media and Publications

Bittersweet (literary magazine)
The Bottom Line (newspaper)
WFWM (radio station)
Channel 3 – FSU TV

Honor Societies

Alpha Kappa Delta (sociology)
Alpha Psi Omega (theatre)
Beta Beta Beta (biology)
Gamma Sigma Epsilon (chemistry)
Gamma Theta Upsilon (geography)
Honors Student Association
Kappa Mu Epsilon (mathematics)
National Residence Hall Honorary
Omicron Delta Epsilon (economics)
Order of Omega (Greek Life)
Phi Alpha (social work)
Phi Alpha Theta (history)
Phi Eta Sigma (first-year students)
Pi Sigma Alpha (political science)
Psi Chi (psychology)
Rho Phi Lambda (recreation park management)
Sigma Delta Pi (Spanish)
Sigma Tau Delta (English)
Upsilon Pi Epsilon (computer science)

Academic

Accounting Association
American Chemical Society
American Choral Directors Association
American Society of Mechanical Engineers
Athletic Training Club
French Club
Frostburg Education Student Association
FSU's Economics Club
Geography Club
Global Business Club
History Club
International Relations Club
Marketing Club
National Association for Music Education
National Broadcasting Society
Philosophy Club
Physics & Engineering Club
Politics, Law & Society Club
Pre-Professional Medical Society
Psychology Club
Social Work Alliance
Society for the Advancement of Management
Society for Collegiate Journalists
Society for Human Resource Management

Sociology and Anthropology Association
Spanish Club
Student Communication Studies Association
Trombone/Euphonium Society
Wildlife Society

Multicultural

African American Studies Society
African Student Association
Breaking Through Glass: Bisexuals, Transgenders, Gay Lesbians & Straight Supporters
Chinese Culture Club
Japanese Culture Club
Latin American Student Association
Muslim Student Association
National Association for the Advancement of Colored People (NAACP)

Religious

Baptist Student Ministry
Catholic Campus Ministry
Fellowship of Christian Athletes
Hillel at Frostburg State University
InterVarsity Christian Fellowship
Latter-Day Saint Student Association
Unified Voices Under God's Dominion
United Campus Ministry

Special Interest

2LUV&TOLER8
3 A.M. Society
Amnesty International
Association for Leadership Development and Civic Engagement
Badminton Club
BURG Peer Education Network
Club Soccer (Women's)
College Republicans
Colleges Against Cancer at FSU
Collegiate Percussive Arts Society
Computer Club
Debate Team
Entrepreneurship Club
Frostburg Men's Lacrosse Club
Frostburg State Cheerleading
Frostburg State Men's Rugby Club
Frostburg State Water Polo Club
FSU Bobcat Anime Corner
FSU Bobcat Archery Club
FSU Deer Quality Management Association
FSU Epitome Hip Hop Dance Team
FSU Police Explorer Post 48
FSU Triathlon Club
FSU Ultimate Club
FSU Women's Rugby Football Club
Low Brass Society
Marching Bobcats
Mock Trial
Moonlight Media Productions

National Council of Negro Women, Inc.
National Society of Black Engineers
National Society of Leadership & Society
Paparazzi Perfect Modeling
Savage Mountain Stage Combat Club
Social Marketing Team
Student Alumni Ambassadors
Student Athlete Advisory Committee
Student Health Advisory Council
Student Veteran's Society
Students Against the Irresponsible Treatment of Animals
Students for Women's Issues
Trombone/Euphonium Society
V-Day at FSU
Visual Couture

Community Service

Anti-Bullying Club
Best Buddies
Sierra Student Coalition

Greek Life

National Inter-Fraternity Council (NIC)

Phi Mu Delta
Sigma Alpha Epsilon
Sigma Tau Gamma
Tau Kappa Epsilon

National Panhellenic Conference (NPC)

Alpha Sigma Alpha
Alpha Sigma Tau
Delta Zeta

National Pan-Hellenic Council (NPHC)

Alpha Phi Alpha
Delta Sigma Theta
Iota Phi Theta
Phi Beta Sigma
Kappa Alpha Psi
Omega Psi Phi

National Sorority and Associate Member of NPC

Kappa Beta Gamma

National Professional Organizations

Alpha Phi Omega (Co-ed Service Fraternity)
Alpha Psi Omega (Co-ed Professional Theatre Organization)
Delta Sigma Pi (Co-ed Business Fraternity)
Kappa Pi (Co-ed Professional Art Organization)

National Professional Music Organizations

Phi Mu Alpha
Sigma Alpha Iota
Delta Omicron (Co-ed)

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
 - 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
 - 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



THE ACADEMIC PROGRAM

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.

Bachelor of Science in Urban and Regional Planning

The Bachelor of Science in Urban and Regional Planning is a professional degree awarded only to students who major in Urban and Regional Planning. Candidates for this degree must complete all requirements listed for the Bachelor of Science degree.

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 learning communities 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 30 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) *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	3 hours	3. Mathematics: <i>One of the following (3-4 hours each):</i> 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	3-4 hours
2. Advanced Writing: <i>One of the following (3 hours each):</i> 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 hours		
			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: <i>At least one of the following (3 hours each)</i>	3 hours
Art ART 100/111* Art Appreciation or ART 110 Visual Imagery	
Dance DANC 110 Dance Appreciation	
Music MUSC 110 Intro. to World Music 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: <i>At least two of the following (3 hours each)</i>	6 hours
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 Contemporary Ethical Problems	
C. The Natural Sciences: <i>At least two of the following (3-4 hours each)</i>	7-8 hours
Biology BIOL 109 Human Biology and the Environment or BIOL 149 General Biology I	
Chemistry CHEM 100/113* Chemistry and Society or CHEM 201 General Chemistry I	
Geography GEOG 103/113* Physical Geography	
Physical Science PHSC 100 Cosmic Concepts (3cr) and PHSC 101 Measurement (1cr) or PHSC 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: <i>At least two of the following (3 hours each)</i>	6 hours
Economics ECON 200 Basic Economics or ECON 201/211* Principles of Economics (Macro)	
Geography GEOG 104/GEOG 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 SOCI 100/111* Introduction to Sociology	
E. The FSU Colloquia: <i>Two courses (3-4 hours each)</i>	6 hours
IDIS150/151* First-Year FSU Colloquium or IDIS/SUST 155 Intro. to Sustainability Studies (<i>required</i>)† 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: <i>One of the following (3 hours each)</i>	3 hours
<i>You must meet all prerequisites listed for the course you select.</i>	
AAST 200 Intro. to African American Studies	MDFL 301 Latin American Women's Issues
AAST 400 Africans of the Diaspora	MUSC 117 Music of Africa, Asia & the Americas
ART 301 Artistic Traditions: Asia	MUSC 250 Women in Music
ART 302 Artistic Traditions: Africa & the Americas	MUSC 311 Jazz History
CMST 350 Intercultural Communication	PHIL 308 Political Philosophy
GEOG 104/114* Human Geography	PHIL 311 Asian and African Philosophy
GEOG 110 World Regional Geography: Cultural Diversity	PHIL 409 Philosophy and Women
GEOG 427 Geography of Languages and Religions	POSC 131 Introduction to Comparative Politics
HIST 100/111* The Contemporary World in Historical Perspective	PSYC 220 Psychology of Women
HIST 418 Native Peoples of the Americas	PSYC 325 African American Psychology
HIST 436 Women's Issues in World History	RECR 100 Leisure & Diverse American Culture
HLTH 125 Health and Culture	SOCI 224 Cultural Anthropology
INST 150 Introduction to World Religions	SOCI 305/SOWK 305 Racial & Cultural Minorities
INST 200 Intro. to International Studies	WMST 201 Introduction to Women's Studies
MDFL 111 Intercultural Understanding	
	Total hours: minimum of 31

- A particular course may be counted to meet only one General Education requirement.

*Honors course equivalent

†Complete prior to earning 45 credit hours or soon after transfer, if applicable.

‡Complete after earning 45 credit hours.

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

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 60 semester hours of credit. 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 and/or a minor 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 at 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 initia-



tive (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 insure 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.

You may also elect to complete an interdisciplinary minor such as African-American Studies, Film Studies, International Studies,

THE ACADEMIC PROGRAM

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).

The Freshman Learning Communities 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.

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.

3. 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.
4. 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

Special Academic Services

The Office of Special Academic Services provides a wide variety of support programs that complement the University's academic programs. Services include coordination, management and promotion of the Summer Session and Intersession; management and coordination of Commencements; and administration of the University's academic eligibility compliance policy for all NCAA Division III sports.

You are welcome to visit the office at any time if you have questions or concerns about any of these areas. Special Academic Services is located in Room 512, Ort Library.

Learning Communities

FSU Connections Learning Communities 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. In addition, learning communities provide an environment which fosters the development of support networks with faculty and other students, relationships that are important contributors to academic success. Each learning community consists of one to three classes linked by theme; all communities include ORIE 101 Introduction to Higher Education (an orientation seminar required of all new first-year students). Learning community students take their courses together as a group during the fall semester with a maximum enrollment of 20-25 students in each community. Learning communities comprise four to nine credit hours of an average first-semester credit hour load of 12-15 hours. Enrollment is limited to entering freshmen.

The faculty who teach in learning communities often arrange supplemental learning activities, through special "Connections Seminars," that highlight the themes of the community. A vast majority of learning community courses fulfill FSU's requirements in general education.

For further information, contact the Office of the Provost.

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.

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 coursework 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

ADDITIONAL ACADEMIC OPPORTUNITIES

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 web page at www.frostburg.edu/admin/cie/.

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/admin/cie/.

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 in 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. You must meet all prerequisites stated by the offering department for the particular certificate.

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 admission, and are accepted, as a degree-seeking student. Credits also are transferable.

In order to earn a formal certificate, you must:

1. Earn at least one-half of the credit hours required in the certificate through course work or special departmental exams offered by Frostburg State University, and
2. Earn a minimum of a 2.0 grade point average in courses required in the certificate and completed at Frostburg State University.

(Exceptions to these standards may apply in the case of collaborative programs.)

Successful completion of a certificate program will be noted on your official Frostburg State University transcript. You also will receive a paper certificate to document your accomplishment. See page 4 for listing of current certificate programs.

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 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.**
- After you declare a major, you are assigned an academic advisor in the department in which you desire to major. **It is your responsibility to promptly declare or change your major** so that an appropriate advisor can be assigned. See the chair of the department in which you wish to major to declare or change your major or to change your advisor.

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 enjoys, and 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 volunteer to assist in your transition to college. You will see your ORIE advisor at least once a week, so take advantage of this contact to ask any question you have. Whenever you are ready, you may officially declare your major. You then will be assigned a faculty advisor in your major department. If you aren't ready to declare your major, your ORIE instructor will continue to advise you until you do, or you may work with the Center for Advising and Career Services (Sand Spring Hall, 301.687.3132).

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 the Advising Center staff, who are trained to work with exploratory students, until you are ready to declare your major.

If all goes well, 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* and *W* 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 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.
3. Have course equivalencies determined by the Transfer Credit Officer in the Admissions Office.
4. Return the form to the Registrar's Office for official signature.
5. Take the approval form to registration at the other institution.

6. After completion of the course work, have an official transcript forwarded from the other institution to Frostburg State University.

In addition to the steps noted above, the following special rules apply:

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 credits of general education or general elective course work.
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 these 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 results be sent to the University. Individual departments may also require achievement tests in their areas to be taken after you have been accepted to the University.

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. If you receive an *F* or *FX* in the second semester (or any subsequent semester of required enrollment) you will be academically dismissed from the University.

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 up to 30 additional 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 *W*s 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 *W*s 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 & Educational Services

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 an official leave of absence, you will continue to receive communications from the University, will not have to submit a readmission application or admissions deposit, and will be able to

participate at the same time as continuing students in such activities as registration and the housing lottery. You must notify the Financial Aid Office that you are on leave, and file financial aid and scholarship applications by the regular deadlines.

To be eligible for a leave of absence, you must have a 2.0 cumulative grade point average at the end of your last term of enrollment, and have no judicial system penalties or charges pending. You may obtain an application for a leave of absence at the Registrar's Office. The application requests information about the reasons you are requesting a leave, what activities you plan during the leave, and for how long you are requesting a leave (one calendar year maximum). Your advisor will need to sign off on your application, which you then must return to the Registrar's Office no later than the last day of the drop/add (late registration) period in your first semester of leave.

If you are planning study at another college during your leave, you must complete an Authorization to Attend Another Institution form (available in the Registrar's Office) and obtain the required approvals. See the section of this catalog on Attendance at Another Institution concerning the rules for transfer of 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. Carrying a normal load of 15 semester hours of credit each semester, you can complete a degree program in eight semesters. 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 Reg-

istrar'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 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 Withdrew
- WF Withdrew 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-Withdrew; WF-Withdrew 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 recorded.

Courses in the undergraduate program may be taken for P/F credit with the following restrictions:

1. The P/F option is not permitted to be used in the General Education Program.

2. 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:

Grade points per semester hour

A	4
B	3
C	2
D	1
F, WF, FX	0

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.)

As with most colleges and universities, credit hours earned at other institutions are accepted for transfer but grades are not. Consequently, the grades from transfer credits are not computed into the cumulative grade point average at FSU. However, academic progress is expected according to the total credit hours earned, including transfer credits.

Calculation of GPA in Major:

1. All courses taken in the major department count in calculating the grade point average for that major (unless specifically excluded).
2. Courses required for the major but taken outside the major department are not counted in the computation, unless specified in the catalog description of the major requirements.
3. Interdisciplinary majors, however, count all courses specifically listed as meeting the requirements for the major. Interdisciplinary majors include Environmental Analysis and Planning, Earth Science, Ethnobotany, International Studies, Law and Society, Liberal Studies, Social Science and Urban and Regional Planning.

4. 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).
5. If a course is repeated, the last grade earned is included in the computation. (See *Course Repetition* section below.)

Calculation of GPA in Minor:

Grades earned in all core and elective course options that can be applied toward minor requirements are used in calculating the grade point average.

Course Repetition and 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.)

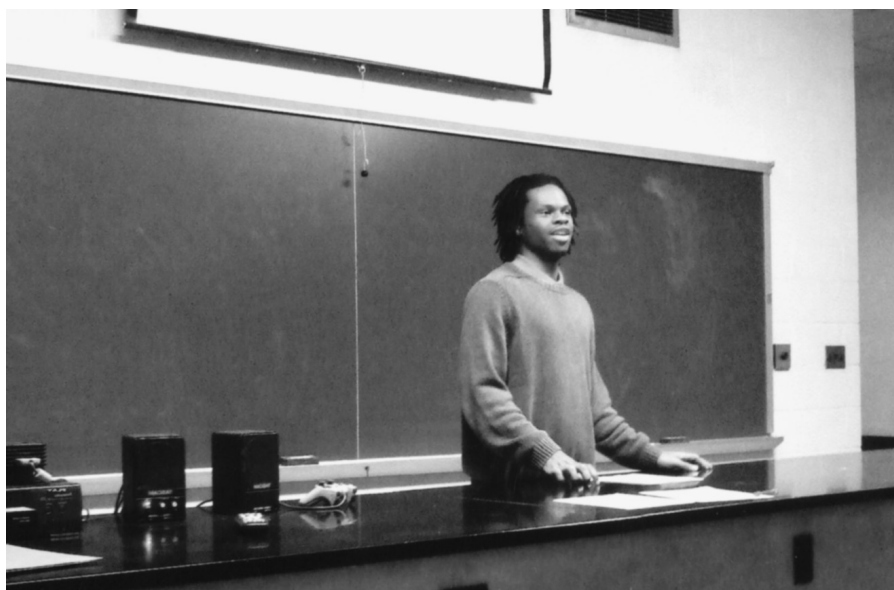
Change of Grades

A 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.

All grade changes must be made within six weeks of the beginning of the following semester. No grade changes are allowed after this date except in the case of an ongoing grade grievance that has reached Stage II; a late withdrawal due to documented extenuating circumstances; or, in exceptional cases, with the approval of the Dean of the College that offers the course. Faculty and students should raise issues about grades immediately upon recording and receipt.

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 grade point average 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 Associate Provost.
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:

Total Hours Earned ¹	Minimum FSU Cumulative GPA ²
0-14	1.00
15-29	1.40
30-44	1.60
45-59	1.80
60-above	2.00

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.

In any of these circumstances, you will not be eligible until the grade change is officially recorded in the Registrar's Office.

Minimum Academic Progress Standards for Athletes

Semester at Frostburg State ¹	Minimum FSU Cumulative GPA ²
First & Second	1.65
Third or more	2.00

¹Semester at Frostburg State = number of semesters enrolled at FSU, including current semester and excluding summer and intersession.

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.

- 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.

Programs offered in the College of Business

Majors:

Accounting

BS Accounting/MBA Dual Degree

Business Administration

Concentrations:

- Finance
- General Management
- Global Business
- 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

FSUBusiness Mission:

FSUBusiness provides progressive learning experiences to help students prepare to successfully meet professional opportunities through a dynamic, student-centered educational environment that emphasizes applied learning and a framework for professional growth in a global society.

Mission Statement Components:

- FSUBusiness emphasizes excellence in teaching at the undergraduate and graduate levels, through its small-class environment, caring faculty, and interactive focus.
- FSUBusiness provides intellectual and professional development to business students through coursework, research opportunities, and global experiential learning activities, with a focus on leadership, ethical values, and community engagement.
- FSUBusiness secures input from significant constituencies, such as business practitioners, alumni, and students, to enhance the quality of its programs.
- FSUBusiness faculty continuously improve their teaching skills through research, practical applications, and global learning experiences.

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: We want our students to demonstrate skill and competence in written communication and in oral communication.
2. Problem Solving (Quantitative): We want our students to demonstrate skill and knowledge in solving problems of a quantitative nature (analysis, computation).
3. Problem Solving (Qualitative): We want our students to demonstrate skill and knowledge in solving problems of a qualitative nature (analysis, computation).
4. Leadership - General Skills/Teamwork and Collaboration Skills: We want our students to demonstrate skill and knowledge in leading groups to successful outcomes and results; and in collaboration, focus of goals and the like.
5. Business Ethics and Values: We want our students to demonstrate knowledge and understanding of theories and concepts of ethics, the application of ethical principles, and the expectations and needs of stakeholders.
6. Business Knowledge-Practice and Application: We want our students to demonstrate skills and knowledge appropriate to different business disciplines in capstone course project work of an applied nature.
7. Core Business Knowledge and Concentration Knowledge

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 100/110 Introduction to Computer Science (*Tech. Fluency*)
 ECON 201/211 Principles of Economics (Macro) (*GEP Group D*)
 ECON 202/212 Principles of Economics (Micro)

Choose one of the following (3-4 hours)

MATH 106 Applied Mathematics for Business
 MATH 220 Calculus for Applications I
 MATH 236 Calculus I (*Core Skill 3*)

Choose 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
 or FINA 476 Financial Management (accounting majors must take this as a CBK course)
 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

Accounting

Major

Minor

	MAJOR	MINOR
Hours Required in FSUBusiness Common Body of Knowledge:	33	6
Hours Required in Accounting:	30	12
Hours Required in CBK Outside FSUBusiness:	18-19	18-19
Total Hours Required for Major/Minor	81-82	18

Combined BS/MBA Option

Professors:

Bandura, R. Johnson, Middleton,
Shaffer (Chair)

Associate Professors:

Bao, Groer

Assistant Professor:

Venezia

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 at the Frostburg campus or on online.

**You must receive a grade of "C" or better for this course to count toward major or minor.*

Summary of Requirements for Major/Minor in Accounting

Major

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:

(18-19 hours)

Communication Studies (3 hours)

CMST 102/112* Introduction to Human Communication

Computer Science (3 hours)

COSC 100/110* Introduction to Computer Science
(Tech. Fluency)

Economics (6 hours)

ECON 201/211* Principles of Economics (Macro) (GEP Group D)
ECON 202/212* Principles of Economics (Micro)

Mathematics (6-7 hours)

MATH 106* 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 & Statistics

3. Distribution Within Department: (24 hours)

ACCT 305* Accounting Systems
ACCT 311* Intermediate Accounting I
ACCT 312* Intermediate Accounting II
ACCT 313 Intermediate Accounting III
ACCT 315 Cost Accounting
ACCT 325 Auditing
ACCT 401 Advanced Financial Accounting
ACCT 420 Tax

4. Elective Hours in Department: (6 hours)

Minor

1. FSUBusiness CBK: (6 hours)

ACCT 211* Financial Accounting
ACCT 212* Managerial Accounting

2. CBK Courses Outside FSUBusiness: (0 hours)

3. Distribution Within Department: (6 hours)

ACCT 311* Intermediate Accounting I
ACCT 312* Intermediate Accounting II

4. Elective Hours in Department: (6 hours)

From ACCT courses numbered higher than 300.

Combined B.S. in Accounting/MBA Program

Coordinator:

Dr. Kathie Shaffer
Professor and Chair, Department
of Accounting

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)

BMIS 607	Information Management in Organizations
ECON 511	Economics for Managers
FINA 610	Financial Management <i>(Prerequisite: ACCT 540)</i>
MGMT 510	Leadership and Ethics
MGMT 512	Management Decision Analysis
MGMT 542	Organizational Behavior
MGMT 620	Strategic Human Resource Management
MGMT 680	Strategic Integration <i>(Prerequisite: FINA 610)</i>
MGMT 690	Applied Change Management
MKTG 640	Marketing Management

Business Administration

Major	MAJOR	MINOR	
Minor	Hours Required in FSUBusiness Common Body of Knowledge:	33	18
Concentrations in:	Hours Required in Concentration:	27	0
	Hours Required in CBK Outside FSUBusiness	18-19	3
	Total Hours Required for Major/Minor	78-79	21

- FINANCE
- GENERAL MANAGEMENT
- GLOBAL BUSINESS
- HUMAN RESOURCE MANAGEMENT
- MARKETING
- SMALL BUSINESS/ENTREPRENEURSHIP

Department of Management and Department of Marketing and Finance

Professors:

Ashkeboussi, Ashley-Cottleur, Plucinski, Poorsoltan, Rahman, Shah, Shin, Singh, Tootoonchi

Associate Professors:

Gaumer (Chair, Department of Marketing and Finance), Harrell-Cook, Mattare, Monahan (Chair, Department of Management), Offstein, Shore, Sigerstad

Assistant Professors:

Ashraf, Dean, Kim, McClellan, Ye

Instructor:

M. Anderson

Lecturers:

Arnone, Kentrus, Wassell

- All concentrations may be completed on the Frostburg campus. The concentrations in general management and small business/entrepreneurship may be completed at the University System of Maryland at Hagerstown.

Summary of Requirements for Major/Minor in Business Administration

Major	Minor
1. FSUBusiness CBK: (33 hours) ACCT 211* Financial Accounting ACCT 212* Managerial Accounting BLAW 291* Legal Environment of Business FINA 370* Corporate Finance 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 (<i>MGMT Capstone</i>) MKTG 361* Principles of Marketing	1. FSUBusiness CBK: (18 hours) ACCT 211 Financial Accounting BUAD 100 Introduction to Business or BLAW 291 Legal Environment of Business FINA 303 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 FSUBusiness: (18-19 hours) Communication Studies (3 hours) CMST 102/112* Introduction to Human Communication	2. CBK Courses Outside FSUBusiness: Economics (3 hours) ECON 200 Basic Economics or ECON 201/211 Principles of Economics (Macro) (<i>GEP Group D</i>)
Computer Science (3 hours) COSC 100/110* Introduction to Computer Science (<i>Tech. Fluency</i>)	
Economics (6 hours) ECON 201/211* Principles of Economics (Macro) (<i>GEP Group D</i>) ECON 202/212* Principles of Economics (Micro)	
Mathematics (6-7 hours) MATH 106* Applied Mathematics for Business or MATH 220* Calculus for Applications I or MATH 236* Calculus I (<i>Core Skill 3</i>) MATH 109/110* Elements of Applied Probability and Statistics (<i>Core Skill 3</i>) or MATH 380* Introduction to Probability and Statistics	
3. Area of Concentration: (27 hours) <i>Majors must choose to concentrate in one of the following:</i> <ul style="list-style-type: none"> • Finance • General Management • Global Business • 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 (9 hours)

FINA 375	Financial Institutions Management
FINA 475	Securities Investment
FINA 476	Financial Management
FINA 479	Financial Policy (<i>Capstone</i>)

3. Elective Courses (15 hours)

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 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 Macro-Economics
ECON 352	Intermediate Micro-Economics
ECON 400	International Trade

Requirements for Concentration in General 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 (9 hours)

MGMT 315	New Business Ventures
MGMT 357	Human Resources Management
MGMT 359	Quality Management

3. Elective Courses (18 hours)

Select from among:

BMIS 455	Management Information Systems
ECON 305	Managerial Economics
FINA 476	Financial 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 (3 or 6 credits)
MGMT 499	Independent Study in Management
MKTG 366	Consumer Behavior

NOTE: No more than 6 hours of internship credit may be used for this option.

Requirements for Concentration in Global Business

1. Core Courses (51-52 hours)

Required of all majors in Business Administration; listed in catalog.

2. Required Courses in Concentration (12 hours)

INTR 330	International Business
INTR 491	Global Business Seminar (<i>Capstone</i>)
MGMT 450	International Management
MKTG 460	International Marketing

3. Foreign Language Requirement (6 hours)

The equivalent of 6 FSU credits in grammar or conversation in any one foreign language.

4. Electives (9 hours)

Choose three from the following 3-credit courses:

ECON 400	International Trade
ECON 405	Economics of Developing Countries
FINA 477	International Financial Management
FINA 494	Internship in Finance
or	MGMT 494 Internship in Management
or	MKTG 494 Internship in Marketing
INTR 490	Special Topics in Global Business
MGMT 315	New Business Ventures
MKTG 366	Consumer Behavior

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

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

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

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 366	Consumer Behavior
MKTG 462	Marketing Research
MKTG 465	Marketing Strategies
MKTG 469	Marketing Plans Development (<i>Capstone</i>)

3. Elective Courses (12 hours)

Four (including at least two MKTG) from among the following:

ECON 460	Econometrics
GEOG 410	Locational Analysis
MGMT 359	Quality Management
	or ACCT 315 Cost Accounting
	or CMST 322 Presentational Analysis
	or MGMT 315 New Business Ventures
MKTG 364	Merchandising
MKTG 365	Professional Selling and Sales Management
MKTG 460	International 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
	or CMST 322 Presentational Communication
	or 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

	MAJOR
Hours Required in FSUBusiness Common Body of Knowledge:	33
Hours Required in Economics:	27
Hours Required in CBK Outside FSUBusiness:	18-21
Total Hours Required for Major:	78-81

Professors:

W. Anderson, Mizak, Neral, Stair

Assistant Professors:

Kiriazis (Chair), McCoskey, Rossi

- The Concentration in Business Economics is recommended for students who intend to seek employment in the private sector and/or pursue graduate study in business.

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: (18-21 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 100* Introduction to Computer Science (*Tech. Fluency*)

Mathematics (6-9 hours)

ECON 450* Quantitative Economics
 or MATH 220* Calculus for Applications I
 or MATH 236* Calculus I (Core Skill 3)
 MATH 106* Applied Mathematics for Business
 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

Minor

Concentrations in

- PUBLIC POLICY ECONOMICS
- QUANTITATIVE ECONOMICS

Professors:

W. Anderson, Mizak, Neral, Stair

Assistant Professors:

Kiriazis (Chair), McCoskey, 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.

	MAJOR			MINOR
	No Concentration	Public Policy Conc.	Quantitative Conc.	
Hours Required in Economics:	33-36	39-42	24-33	18
Hours Required in Other Departments:	6	6	14-23	6
Total Hours Required:	39-42	45-48	47	24

Summary of Requirements for Major/Minor in Economics

Major	Minor
<p>1. Required Core Courses in Economics: (18 hours)</p> <p>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)</p> <p>2. Required Core Courses in Other Departments: (3 hours)</p> <p>MATH 109/110* Elements of Applied Probability and Statistics (Core Skill 3)</p> <p>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.</p>	<p>1. Required Core Courses in Economics: (18 hours)</p> <p>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</p> <p>2. Required Core Courses in Other Departments: (3 hours)</p> <p>MATH 109/110* Elements of Applied Probability and Statistics (Core Skill 3)</p> <p>3. Other Courses: (9-10 hours) MATH 236* Calculus I (Core Skill 3) or MATH 106* Applied Mathematics for Business or MATH 220* Calculus for Applications I</p> <p>Minors must also complete at least 6 additional credit hours in economics (excluding ECON 495) at the 300 or 400 level.</p>

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 hours must be at the 400 level.

3. Courses in Other Departments: (3-6 hours)

MATH 236* Calculus I (Core Skill 3)

or MATH 106* Applied Mathematics for Business and ECON 450* Quantitative Economics+
or MATH 220* Calculus for Applications I

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

+Note: If this option is 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 106* Applied Mathematics for Business

and ECON 450* Quantitative Economics

Finance

Minor

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 FSUBusiness 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

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 FSUBusiness 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
or FINA 476 Financial Management (if not selected to meet the requirement listed above)
FINA 475 Securities Investment
FINA 477 International Financial Management

Management

Minor

MINOR

Hours Required in Management:

18

Total Hours Required:

18

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

MINOR

Hours Required in Marketing:

12

Hours Required in Other Departments:

6

Total Hours Required:

18

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: (9 hours)

BUAD 100 Introduction to Business
or ACCT 211 Financial Accounting
ECON 201/211 Principles of Economics (Macro)
MKTG 361 Principles of Marketing

2. Elective Courses: (9 hours)

Choose three of the following:

MKTG 363 Advertising
MKTG 365 Professional Selling and Sales Management
MKTG 366 Consumer Behavior
MKTG 465 Marketing Strategies

Small Business/Entrepreneurship

Minor

Coordinator:

Dr. Michael Monahan
Chair, Department of Management

- 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 may complete the minor on the Frostburg campus and at the USM at Hagerstown.
- You cannot major in small business/entrepreneurship.

	MINOR
Hours Required in Management:	15
Hours Required in Other Departments:	3
Total Hours Required:	18

Summary of Requirements for Minor in Small Business/Entrepreneurship

1. Required Courses (18 hours)

MGMT 251	Management of Organizations
MGMT 315	New Business Ventures
MGMT 356	Leadership & Human Behavior
MGMT 357	Human Resources Management
MGMT 425	Entrepreneurial Business Plan
MKTG 361	Principles of Marketing



Programs offered in the College of Education

Early Childhood/Elementary Education

Elementary Education

Elementary/Middle School
Dual Certification

P-12 Programs (PreK-12)

Secondary Programs

Secondary/Adult Generic
Special Education

Athletic Training

Coaching

Exercise & Sport Science

Health & Physical Education

Health Promotion

Recreation & Parks Management

Mission

The College of Education at Frostburg State University is committed to preparing professionals who provide excellent instruction, service, and leadership to a diverse and global community.

Vision

The vision of the College of Education is to build upon its rich history of teacher education and position itself as a national exemplar of quality professional preparation programs.

Goals

Goals for the College of Education are:

1. To provide programs of exceptional quality based on national standards that meet the needs of the state and region.
2. To assure that all graduates are capable of providing leadership in their professions.
3. To assure that all graduates are dedicated professionals committed to the success of all their students or clients.
4. To assure that all graduates are fully prepared for their professional responsibilities.
5. To assure that all graduates can assess their own professional practice and make changes based on their assessments.
6. To instill in graduates a sense of advocacy for their students, clients, community, and profession.
7. To encourage and help develop a sense of collaboration in our graduates.
8. To assure that graduates are prepared to meet the challenges of a changing global community.
9. To continuously assess our programs according to professional standards and use the findings to enhance our programs.
10. To provide graduates with an appreciation for the environment and the value of a healthy, quality life-style.

Teacher Education Program Characteristics and Features

The Educational Unit subscribes to the motto - Linked Hands, Heads, and Hearts: Building Powerful Learning Communities. Performance assessments are used to affirm that graduates have met the Unit Outcomes by exhibiting characteristics that demonstrate they are prepared to be Dedicated Professionals, Instructional Leaders, Continuous Assessors, Educational Advocates, Collaborative Bridge Builders, and Reflective Decision Makers. The following programmatic features are among those which identify the uniqueness of this educational unit and lead to the success of its candidates: programs are based on proven national and state standards; candidates must have a strong background in content areas; teaching skills are developed in multiple field experiences using the Professional Development School model; candidates develop instructional strategies to maximize the learning for all students, including those of diversity and those with special needs; candidates are helped to develop or enhance dispositions that are consistent with codes of ethics and professionalism; all programs use technology to improve instruction and teach candidates to apply technology to their own instruction.

Dr. Clarence Golden, Jr.
Dean, College of Education
203-2 Framptom
301.687.4374

FSU's Teacher Education Report Card

Contextual Information

Total number of students admitted into teacher preparation, all specializations, AY 2011-2012	586
Number of students in supervised student teaching	149
Number of faculty members who supervised student teachers:	
Full-time faculty in professional education	16
Part-time faculty in professional education but full-time in the institution	5
Part-time faculty in professional education, not otherwise employed by the institution	17
Total faculty student teaching supervisors	38
Student teacher/faculty ratio	6.1
The average number of student teaching hours per week required*	35
The total number of weeks of supervised student teaching required	20
Average total number of hours required	700

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

Individual Assessments completed by 10 or more students

TYPE OF ASSESSMENT	FROSTBURG STATE UNIVERSITY			STATEWIDE		
	Number Taking Assessment	Number Passing Assessment	Institutional Pass Rate	Number Taking Assessment	Number Passing Assessment	Statewide Pass Rate
Professional Knowledge						
ELEM ED CONTENT AREA EXERCISES	36	33	92%	250	244	98%
HEALTH ED	17	17	100%	28	28	100%
Academic Content Areas						
ELEMENTARY ED CONTENT KNOWLEDGE	54	54	100%	505	501	99%
EARLY CHILDHOOD: CONTENT KNOWLEDGE	40	40	100%	312	312	100%
HEALTH ED:	17	17	100%	78	78	100%

Summary Institutional-level Pass-rate Data: Regular Teacher Preparation Program

Academic Year: 2011-2012

Number of Program Completers: 129¹

Type of Assessment ²	Number Taking Assessment ³	Number Passing Assessment ⁴	Institutional Pass Rate	Statewide Pass Rate
Summary Totals and Pass Rates⁵	124	120	97%	98%

See College of Education website for detailed report.

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

Professors:

Cushall, Dow, Golden, Ornstein,
T. Palardy, Simmons, Wakefield
Wheaton

Associate Professors:

Childs, Diehl, Holmes, S. Pack,
Rotruck (Chair), Stephenson,
Welsch

Assistant Professors:

Boayue, Ladores, Milleson, Nichols,
Rosa, Santamaria-Makang,
Scarloss, Stoothoff, Tobery-Nystrom

Instructors:

M. Palardy, R. Pellegrino

- You may elect to major in one of two areas: Early Childhood/Elementary Education or Elementary Education.
- All elementary majors are required to have an area of specialization.
- Professional education sequences for secondary and P-12 programs are provided in cooperation with other departments (see separate sections of this catalog).
- You cannot minor in education.
- An internship is required.
- You must complete application for each phase of the program. The requirements for entry in phases are described in this section.
- Further information is available in the Education Unit Advisement Center in Framptom Hall 223.

Teacher Education Programs

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

The Educational Professions Department also offers approved teacher education programs leading to eligibility for certification in Secondary Education (biology, chemistry, English, foreign languages - French and Spanish, 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 Education: Early Childhood/Elementary Program, Elementary Program, Secondary School Programs, P-12 Programs 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 or the Elementary program, 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 may apply for a Standard Professional Certificate I through 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 and Elementary Education, 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.

SPECIAL NOTE:

- If you complete all three Educational Technology courses (EDUC 346, 447, 448) with grades of C or better in each course, you will fulfill the University's technology fluency requirement

Pre-Phase Requirement

1. EDUC 100 students are required to be certified free of TB prior to fieldwork.

Phase I Admission Requirements *(Program Entrance)*

1. Completion of at least 45 credit hours.
2. Cumulative GPA of at least 2.5 (including all grades from transfer institutions).
3. Passing grade on PRAXIS I as established by the state of Maryland or SAT taken after 2005, math and critical reading composite score of 1100; SAT taken between 4/95 and 2005, math and verbal composite of 1100; or ACT composite score of 24.
4. C or above in ENGL 101/111.
5. Twenty (20) documented hours of working with diverse populations.*
6. Declaration of a major. Transfer students must indicate intended major at transfer institutions.
7. Certified free of TB.
8. Completion of Consent and Release form.**
9. Fingerprinting as a background check is required. For more information, contact the Office of Clinical and Field Experiences in Frampton 215.

Additional Phase I Requirements for Early Childhood/Elementary and Elementary Education Majors

1. C or above in MATH 206.
2. Grade of C or above in EDUC 100.
3. Declaration of specialization.
4. Acceptable rating on professional dispositions evaluation.

Additional Phase I Requirements for Secondary and P-12 Majors

1. C or above in Core Skill 3 (Math).
2. Grade of C or above in EDUC 100 (Secondary only).

Phase II Admission Requirements

1. Completion of at least 60 credit hours (Junior standing).
2. Cumulative GPA of at least 2.5 (including final grade point averages from transfer institutions).
3. C or better in each of the Phase I courses designated by program.
4. Cumulative GPA of 2.5 in each of the Phase I courses designated by program.
5. GPA of 2.5 in major (P-12/secondary only).
6. Grade of P or equivalent in EDUC 200.
7. Grade of C or better in ENGL 308 or equivalent.
8. Completion of at least one course in each of groups A, B, C and D of the GEP.
9. Positive recommendation of advisor.
10. Seventy-five percent or 18 credits of content major or specialization completed, with study plan submitted to the Office of Unit Assessment.
11. Grade of C or better in MATH 207 (ECE/ELEM and ELEM majors).
12. Acceptable rating on professional dispositions evaluation.

Admission Requirements for Professional Development Schools

1. Successful completion of EDUC 307 (field work). (ECE/ELEM and ELEM majors)
2. Cumulative GPA of at least 2.5.
3. GPA of 2.5 in major with no grade less than C in Block I courses.
4. Successful completion of an entrance interview into a PDS.
5. Acceptable rating on professional dispositions evaluation.

Phase III Admission Requirements

1. Completion of at least 90 credit hours (senior standing).
2. Cumulative GPA of at least 2.60.
3. GPA of at least 2.75 in all required education courses.
4. GPA of at least 2.75 in content major or area of specialization.
5. Grade of C or better in each Phase II course.
6. Successful completion of Phase II field work.
7. Approval of program coordinator.
8. Verification of completion or registration for PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education.
9. Acceptable rating on professional dispositions evaluation.
10. Additional fingerprinting/background check or TB test as required by the assigned placement county/district for field experiences.

* According to departmental format.

**Confirming that candidate is free of convictions that would disqualify him or her from obtaining certification in Maryland.

Additional Phase III Requirement for Early Childhood/Elementary Majors

1. Passing score on Early Childhood Comprehensive Exam.

Program Exit Requirements

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

Early Childhood/Elementary Education

Major

	MAJOR
Hours Required in Education:	72
Hours Required in Other Departments:	60
Total Hours Required:	132

Professors:

Ornstein, T. Palardy, Wakefield, Wheaton

Associate Professors:

S. Pack, Rotruck (Chair), Stephenson, Welsch

Assistant Professors:

Boayue, Ladores, McGee, Milleson, Nichols, Rankin, Scarloss, Tobery-Nystrom

Instructors:

M. Palardy, R. Pellegrino

- The requirements in numbers 1-4 list specific hours required in other departments. These requirements include but go beyond the University GEP.
- You must complete the 24 hour early childhood specialization.
- You must complete application for each phase of the program.
- The requirements for entry into phases are listed in the Educational Professions section of this catalog.
- Consider a double major in Liberal Studies (see the major description in this catalog).
- The Early Childhood/Elementary Education major (early childhood specialization) can be completed on the Frostburg campus and, in cooperation with area community colleges, at the University System of Maryland at Hagerstown.

Summary of Requirements for Major in Early Childhood/Elementary Education

Directed academic course requirements within and beyond the University GEP

Major

1. Completion of Core Skills: (9 hours)

2. Specific Hours for Early Childhood/Elementary Education Majors: (27 hours)

Fine Arts Component (3 hours; satisfies GEP Group A)

ART 110 Visual Imagery

English (Literature) (3 hours; GEP Group B)

ENGL 150/250 Intro. to Literature

History (3 hours; GEP Group B)

- HIST 100/101 The Contemporary World in Historical Perspective
- HIST 103/104 History of the United States or HIST 113/114 World History (for transfer students only)

Mathematics (9 hours; 3 hours satisfy Core Skill 3)

MATH 206 Problem Solving for Elementary Teachers I
 MATH 207 Problem Solving for Elementary Teachers II
 MATH 109 Elements of Applied Probability and Statistics (Core Skill 3)
 or MATH 119 College Algebra (Core Skill 3)

Natural Science (12 hours; at least 8 satisfy GEP Group C)

- BIOL 109 Human Biology and the Environment or BIOL 149 General Biology I
- PHYS 203 Physical Science
- 4 hour lab science elective - GEP recommended

Social Science (3 hours; GEP Group D)

GEOG 104 Human Geography

3. Additional GEP Requirements: (12 hours)

- IDIS 150/151 First-Year FSU Colloquium (required)
- Additional Modes of Inquiry course from Groups A-D. You may select a GEP 4-credit science course for the third science course required for Early Childhood/Elementary majors or check specialization for GEP possibilities.
- Identity and Difference (3 hours; GEP Group F). (Check specialization for GEP possibilities.)

4. Professional Education Courses Required Prior to Entrance to Phase III: (6 hours)

MUSC 350 Music and Creative Interaction for the Elementary Classroom (3)
 PHEC 309 Health and Physical Education for the Elementary Classroom (3)

5. Specialization (24 hours; 2 courses satisfy GEP)

- a. ART 110 Visual Imagery (3 hours satisfy GEP Group A)
- b. PSYC 150/151 General Psychology (3 hours satisfy GEP Group D)
- c. PSYC 210 Child Development
- d. EDUC 390 Field Experience in Early Childhood Education (3 hours required during Phase I. Proposal written during ECED 293.)
- e. All of the following (12 hours)

ECED 150 Early Childhood Foundations (taken Pre-Phase I)

ECED 293 Early Childhood Learning Environment, Materials and Methods (taken Pre-Phase I after ECED 150)

ECED 431 Early Childhood Education Curriculum Development, Implementation and Assessment (taken during Block II)

ECED 443 Adults in the Child's World (taken during Block I)

Elementary Education

Major

MAJOR

Hours Required in Education:	57
Hours Required in Other Departments:	75
Total Hours Required:	132

Professors:Ornstein, T. Palardy, Wakefield,
Wheaton**Associate Professors:**S. Pack, Rotruck (Chair),
Stephenson, Welsch**Assistant Professors:**Boayue, Ladores, McGee,
Milleson, Nichols, Rankin,
Scarloss, Tobery-Nystrom**Instructors:**

M. Palardy, R. Pellegrino

- The requirements in numbers 1-3 at right list specific hours required in other departments. These requirements include but go beyond the University GEP.
- You must complete an approved 24 hour specialization.
- 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.
- Consider a double major in Liberal Studies (see the major description in this catalog).

Summary of Requirements for Major in Elementary Education

Directed academic course requirements within and beyond the University GEP

Major

1. Completion of Core Skills: (9 hours)**2. Specific Hours for Elementary Education Majors:** (27 hours)**Fine Arts Component** (3 hours; satisfies GEP Group A)

ART 110 Visual Imagery

English (Literature) (3 hours; GEP Group B)

ENGL 150/250 Intro. to Literature

History (3 hours; GEP Group B)

- a. HIST 100/111 The Contemporary World in Historical Perspective
- b. HIST 103/104 History of the United States or HIST 113/114 World History (for transfer students only)

Mathematics (9 hours; 3 satisfy Core Skill 3)

MATH 206 Problem Solving for Elementary Teachers I

MATH 207 Problem Solving for Elementary Teachers II

MATH 109 Elements of Applied Probability and Statistics (Core Skill 3)
or MATH 119 College Algebra (Core Skill 3)**Natural Science** (12 hours; at least 8 satisfy GEP Group C)

a. BIOL 109 Human Biology and the Environment or BIOL 149 General Biology I

b. PHYS 203 Physical Science

c. 4 hour lab science elective - GEP recommended

Social Science (3 hours; GEP Group D)

GEOG 104 Human Geography

3. Additional GEP Requirements: (12 hours)

- a. IDIS 150/151 First-Year FSU Colloquium (required).
- b. Additional Modes of Inquiry course from Groups A-D. You may select a GEP 4-credit science course for the third science course required for Early Childhood/Elementary majors or check specialization for GEP possibilities.
- c. Identity and Difference (3 hours; GEP Group F). (Check specialization for GEP possibilities.)

4. Professional Education Courses Required Prior to Entrance to Phase III: (6 hours)

MUSC	350	Music and Creative Interaction for the Elementary Classroom (3)
PHEC	309	Health and Physical Education for the Elementary Classroom (3)

5. Specializations (24 hours, 2 courses count for GEP)

A 24 hour specialization must be completed in one of the following areas: Mathematics, General Science, Social Studies, Language Arts or an Approved Individualized Specialization. Requirements for each specialization are available in the Department of Educational Professions.

6. Professional Education Courses Required Prior to or Concurrent with Phase I: (4 hours)

EDUC	100	Career Analysis in Education (1)
EDUC	201	Students, Teachers, and Learning Environments (3)

7. Professional Education Sequence (53 hours)**PHASE I (11 hours)**

EDUC	200	Phase I Teaching and Professional Assessment Laboratory (1)
EDUC	202	Foundations of Learning and Instruction (3)
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)

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-8 (6)

PHASE III (15 hours)

EDUC	422	Leadership Seminar P-8* (3) (<i>Capstone</i>)
ELED	495	Teaching Internship II: P-8 (12) (<i>Capstone</i>)

8. Other Internship Requirements

Students wishing to have an internship placement in a middle school must take EDUC 445 Middle School Curriculum Methods (3 hours) during the semester in which they are enrolled in Phase II Block II.

9. Other Graduation/Program Exit Requirements

- Successful presentation of a portfolio that meets institutional, Maryland state and national standards.
- Completion of the Praxis II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).
- Successful completion of required field experiences in primary (1-3) and intermediate (4-6) grades, as well as middle school, if applicable.

Elementary/Middle School Dual Certification

Major

Professors:

Ornstein, T. Palardy, Wakefield,
Wheaton

Associate Professors:

S. Pack, Rotruck (Chair),
Stephenson, Welsch

Assistant Professors:

Boayue, Ladores, McGee,
Milleson, Nichols, Rankin,
Scarloss, Tobery-Nystrom

Instructors:

M. Palardy, R. Pellegrino

- The requirements in numbers 1-3 at right list specific hours required in other departments. These requirements include but go beyond the University GEP.
- You must complete an approved 24 hour specialization. Six of those hours will be in middle grades pedagogy (EDUC 320 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.

	MAJOR
Hours Required in Education:	57
Hours Required in Other Departments:	75
Total Hours Required:	132

	MAJOR
Hours Required in Education:	63
Hours Required in Other Departments:	69
Total Hours Required:	132

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

Major

1. Completion of Core Skills: (9 hours)

2. Specific Hours for Elementary/Middle School Education Majors: (27 hours)

Fine Arts Component (3 hours; satisfies GEP Group A)

ART 110 Visual Imagery

English (Literature) (3 hours; GEP Group B)

ENGL 150/250 Intro. to Literature

History (3 hours; GEP Group B)

HIST 100/111 The Contemporary World in Historical Perspective
or HIST 103/104 History of the United States I, II or HIST 113/114: World History I, II

Mathematics (9 hours; 3 satisfy Core Skill 3)

MATH 206 Problem Solving for Elementary Teachers I
MATH 207 Problem Solving for Elementary Teachers II
MATH 109 Elements of Applied Probability and Statistics (Core Skill 3)
or MATH 119 College Algebra (Core Skill 3)

Natural Science (12 hours; at least 8 satisfy GEP Group C)

BIOL 109 Human Biology and the Environment or BIOL 149 General Biology I
PHYS 203 Physical Science
4 hour lab science elective - GEP recommended

Social Science (3 hours; GEP Group D)

GEOG 104 Human Geography

3. Additional GEP Requirements: (12 hours)

- IDIS 150/151: First-Year FSU Colloquium (required) and IDIS 350/351: Advanced FSU Colloquium or one additional Modes of Inquiry course from Groups A-D.
(You may select a GEP 4- credit science course for the third science course required for Elementary/Middle School majors or check specialization for GEP recommendations.)
- Identity and Difference (3 hours; GEP Group F) (Check specialization for GEP recommendations).

4. Professional Education Courses Required Prior to Entrance to Phase I: (4 hours)

EDUC 100 Career Analysis in Education (1)
EDUC 201 Students, Teachers, and Learning Environments (3)

5. Professional Education Sequence (53 hours)

PHASE I (14 hours)

EDUC 200 Phase I Teaching and Professional Assessment Laboratory (1)
EDUC 202 Foundations of Learning and Instruction (3)
EDUC 346 Educational Technology Laboratory I (1)
EDUC 376 Special and Multicultural Education (3)
REED 323 Process and Acquisition of Reading (3)
EDUC 316 Foundations of Middle Grades Education (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 (16 hours)

EDUC	448	Educational Technology Laboratory III (1)
ELED	494	Teaching Internship I: P-8 (6)
REED	420	Assessment for Reading Instruction (3)
REED	425	Materials and Motivations for Reading (3)
EDUC	445	Middle Grades Curriculum and Methods (3)

PHASE III (15 hours)

EDUC	422	Leadership Seminar P-8 (3) (<i>Capstone</i>)
ELED	495	Teaching Internship II: P-8 (12) (<i>Capstone</i>)

Students wishing to have an internship placement in a middle school must have successfully completed EDUC 320 and EDUC 445.

6. Professional Education Courses Required Prior to Entrance to Phase III: (6 credit hours)

MUSC	350	Music and Creative Interaction for the Elementary Classroom (3)
PHEC	309	Health and Physical Education for the Elementary Classroom (3)

7. Specializations (24 credit hours, 2 courses count for GEP)

A 24 hour specialization must be completed in one of the following areas: Mathematics, General Science, Social Studies, Language Arts or an Approved Individualized Specialization.

Eighteen hours of the specialization must be content courses (20 for science majors).

Social Studies:

HIST	103/104	History of the United States I, II
GEOG	104	Human Geography or GEOG 110 World Regional Geography
POSC	110	Introduction to American Politics
HIST	113/114	World History I, II
HIST	100	Contemporary World in Historical Perspective or HIST 445 History of Maryland or GEOG 302 Geography of Maryland
HIST	461	Colonial America or HIST 464: Civil War Reconstruction

Science:

BIOL	149	General Biology I
PHSC	203	Physical Science
GEOG	103	Physical Geography
CHEM	201	General Chemistry I
PHSC	210	Descriptive Astronomy

English/Language Arts:

ENGL	150	Introduction to Literature
ENGL	308/310/312	Advanced Composition
ENGL	430	The Composing Processes
CMST	102	Introduction to Human Communication
ENGL	276	Adolescent Literature or REED 440 Children's Literature
REED	418	Reading and Writing Connections

Mathematics:

MATH	206	Problem Solving for Elementary Teachers I
MATH	207	Problem Solving for Elementary Teachers II
MATH	200	Discrete Math
MATH	109	Elements of Applied Probability and Statistics
MATH	236	Calculus I
MATH	340	Fundamental Concepts of Geometry

8. Other Graduation/Program Exit Requirements

- Successful presentation of a portfolio that meets institutional, Maryland state, and national accreditation standards.
- Verification of taking Praxis II content knowledge and pedagogy tests required by the Maryland State Department of Education.
- Successful completion of required field experiences in primary (1-3), intermediate (4-5) and middle school (6-8).

P-12 Programs

Teaching Certification

Contact:

Todd Rosa, Assistant
Professor, Department of
Educational Professions

Professor:

Soderberg-Sarnaker

Associate Professor:

Welsch

Assistant Professors:

Milleson, Nichols, Scarloss,
L. Simpson

Instructors:

R. Gallagher, Klickman,

Lecturer:

Bosley

- 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.
- The courses of study to be followed in academic content areas are established by the individual departments (art, health and physical education, music).
- You cannot major or minor in P-12 education.

Professional Education Sequence for P-12 Programs

ART

Pre-Phase I EDUC 201 Students, Teachers, and Learning Environments

(3 hours)

Phase I EDUC 200 Phase I Teaching and Professional Assessment Laboratory

(7 hours)

EDUC 202 Foundations of Learning & Instruction

REED 317 Content Area Reading

Phase II

(14.5 hours)

EDUC 300 Phase II Teaching and Professional Assessment Laboratory

EDUC 392 K-12 Field Experience

EDUC 450 Art Education Methods for the Secondary Teacher

EDUC 451 Art Education Methods for the Elementary Teacher

REED 418 Reading and Writing Connections

SPED 451 Adapting Instruction in Diverse Classrooms

Phase III

(14 hours)

EDUC 406 Leadership Seminar

EDUC 497 Teaching Internship, K-12 Program

Other Graduation/Program Exit Requirements

- Successful presentation of a portfolio that meets institutional, Maryland state, and national standards.
- Verification of taking PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).

MUSIC

Pre-Phase I MUSC 125 Introduction to Music Education

(3 hours)

Phase I

(4 hours)

MUSC 252 Early Music Experience

REED 317 Content Area Reading

Phase II

(18.5 hours)

EDUC 300 Phase II Teaching and Professional Assessment Laboratory

EDUC 354 General Music Methods in Elementary School

EDUC 355 General Music Methods in Secondary School

EDUC 392 K-12 Field Experience

MUSC 352 Choral Music Methods

or MUSC 353 Instrumental Music Methods

REED 418 Reading and Writing Connections

SPED 451 Adapting Instruction in Diverse Classrooms

Phase III

(14 hours)

EDUC 406 Leadership Seminar

EDUC 497 Teaching Internship, K-12 Program

Other Graduation/Program Exit Requirements

- Successful presentation of a portfolio that meets institutional, Maryland state, and national standards.
- Verification of taking PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).

HEALTH & PHYSICAL EDUCATION

Pre-Phase I EDUC 100 Career Analysis in Education

(4 hours)

EDUC 201 Students, Teachers, and Learning Environments

Phase I

(7 hours)

EDUC 202 Foundations of Learning & Instruction

EDUC 346 Educational Technology Lab I

REED 317 Content Area Reading

Phase II

(11 hours)

EDUC 392 K-12 Field Experience

EDUC 447 Educational Technology Lab II

HEED 404 Health Instruction

PHEC 418 Physical Education in the Secondary School

REED 418 Reading and Writing Connections

Phase III
(15 hours) EDUC 406 Leadership Seminar
EDUC 448 Educational Technology Lab III
PHEC 497 Teaching Internship, K-12 Program (*Capstone*)

Other Graduation/Program Exit Requirements

- Successful presentation of a portfolio that meets institutional, Maryland state, and national standards.
- Verification of taking PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).

Secondary Programs

Teaching Certification

Contact:

Todd Rosa, Assistant
Professor, Department of
Educational Professions

Professors:

Cushall, Simmons, Wakefield

Associate Professor:

R. Brewer

Assistant Professor:

Milleson, 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.
- You cannot major or minor in Education: Secondary Programs

The courses of study to be followed in academic content areas are established by individual departments. You may select the secondary school teaching certification option in addition to completing the major in the following fields:

- biology
- chemistry
- foreign languages & literature (certification in concentration, French or Spanish)
- earth science
- mathematics
- physics
- social science

If you are majoring in economics, geography, history, political science, 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.

Professional Education Sequence for Secondary Programs

Pre-Phase I (4 hours)	EDUC 100	Career Analysis in Education
	EDUC 201	Students, Teachers, and Learning Environments
Phase I (8 hours)	EDUC 200	Phase I Teaching and Professional Assessment Laboratory
	EDUC 202	Foundations of Learning & Instruction
	EDUC 346	Educational Technology Lab I
	REED 317	Content Area Reading
Phase II (15.5 hours)	EDUC 300	Phase II Teaching and Professional Assessment Laboratory
	EDUC 391	Teaching Internship I: Secondary Education
	REED 418	Reading and Writing Connections
	SCED 410	Secondary Methods and Curriculum
	EDUC 447	Educational Technology Lab II
	SPED 451	Adapting Instruction in Diverse Classrooms
<i>One course from among the following:</i>		
SCED 411, 414, 415, 419, or 420 (<i>content-specific methods courses</i>).		
Phase III (15 hours)	EDUC 406	Leadership Seminar
	EDUC 448	Educational Technology Lab III
	SCED 496	Teaching Internship II: Secondary Education (<i>Capstone</i>)

Other Graduation/Program Exit Requirements

- Successful presentation of a portfolio that meets institutional, Maryland state, and national standards.
- Verification of taking PRAXIS II content knowledge and pedagogy tests required by the Maryland State Department of Education (before Phase III).

Secondary/Adult Generic Special Education

Teaching Certification

Certificate

Hours Required in Education:	30
Hours Required in Other Departments:	3
Total Hours Required:	33

Coordinator:

Oma Gail Simmons, Professor,
Department of Educational
Professions

- You must meet all phase admission requirements as listed in the Educational Professions section of this catalog.
- If you have officially declared your intent to complete this certificate, you may count the nine graduate credits required towards your undergraduate degree.
- If you have dual certification in a content area and in special education, you will be sought after as a master teacher.
- If you already have a bachelor's degree and hold secondary or P-12 certification, you may attain dual certification through the M.Ed. in Special Education (see the FSU Graduate Catalog).

You are eligible to complete the upper-division certificate in Secondary/Adult Generic Special Education if you are a currently enrolled undergraduate student earning secondary or P-12 teaching certification along with a major in your content discipline.

Summary of Requirements for Certificate in Secondary/Adult Generic Special Education

(33 hours)

EDUC 202 Foundations of Learning and Instruction*
 PSYC 210 Child Development
 or PSYC 212 Adolescence and Adulthood
 REED 317 Content Area Reading*
 REED 418 Reading and Writing Connections*
 SPED 451 Adapting Instruction in Diverse Classrooms*
 SPED 462 Introduction to the Education of Exceptional Children
 SPED 601 Assessment, Diagnosis, and Evaluation of Exceptional Children
 SPED 602 Instructional Content and Practices for Exceptional Children
 SPED 605 Communication and Collaborative Partnerships in Special Education Programs
 SCED 496 Teaching Internship II: Secondary Education
 or EDUC 497/PHEC 497 Teaching Internship: K-12 Programs**

*Also required for secondary and some P-12 teaching certification programs.

**Six of the 12 credits required for secondary P-12 teaching certification must involve working with students with special needs.

PRAXIS II Requirements:

Candidates need to take the PRAXIS II: Special Education tests required in Maryland for certification. Passing scores are required by the Maryland State Department of Education for endorsement.

Athletic Training

Major

Director:

Tony Zaloga, Director of Athletic Training Program and Head Athletic Trainer

Preceptors:

Durst, Gindlesberg, Lueck, Schoenly, Sweitzer, Wright, Zaloga

- The Athletic Training Program is accredited by the Commission on Accreditation of Athletic Training Education (CAATE).
- Special entrance requirements are designed to insure that students are capable of completing the rigorous curriculum and will have the ability to pass the Board of Certification (BOC) exam for athletic training.
- You must pass the BOC exam to become a Certified Athletic Trainer.

	MAJOR
Hours Required in Kinesiology:	70
Hours Required in Other Departments:	18
Total Hours Required:	88

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 Program Director.
2. A minimum 2.5 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 room. 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.

The total number of students that can be accepted into the program is dependent 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.

In addition to the previous criteria, the student must complete a physical examination that includes each of the following:

- Clearance on TB testing
- Meningococcal vaccination
- Hepatitis B vaccination

Application Review Process

1. Students who have met the above minimum requirements will be evaluated on the following scale:

Overall GPA	40 points possible
Prerequisite GPA	30 points possible
Faculty Recommendations	20 points possible
Interview	5 points possible
Application/Essay	5 points possible
	100 points possible

2. The following scale will be used to evaluate the quality of the applicant.

100 – 75 points	Student recommended for full admission
74 - 70 points	Student <i>provisionally admitted</i> for one academic year (if clinical placements available)
Below 70 points	Student rejected for admission/may reapply next academic year
Provisional Admission	Student is admitted into program with the stipulation that he/she must rectify deficiencies identified by the ATP admission committee by the end of the next academic year

Maintaining Advanced Good Standing in Athletic Training Program

Once admitted, the Athletic Training student must maintain the following to remain fully admitted:

1. A minimum overall GPA of 2.5
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: (70 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 422	Clinical Experiences in Athletic Training IV (<i>Capstone</i>)
HEED 423	Clinical Experiences in Athletic Training V (<i>Capstone</i>)
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 (<i>GEP Group C</i>)
BIOL 321	Anatomy & Physiology I
BIOL 322	Anatomy & Physiology II
MATH 109	Elements of Applied Probability and Statistics (<i>Core Skill 3</i>)
PSYC 150	General Psychology (<i>GEP Group D</i>)

Coaching

Minor

	MINOR
Hours Required in KINE:	22
Hours Required in Other Departments:	0
Total Hours Required:	22

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

Professor:

Surgent

Associate Professor:

A. Siemann (Chair)

Assistant Professors:

M. Kentrus, Wright, Zaloga

Lecturers:

Brakeall, M. Siemann

- 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.

MAJOR	
Hours Required in KINE:	49
Hours Required in Other Departments:	27
Total Hours Required:	76

Summary of Requirements for Major in Exercise and Sport Science

Major

1. Discipline Core Courses:

(40 hours)

HEED 103	Foundations of Exercise and Sport Science
HEED 200	Nutrition
HEED 305	Care and Prevention of Athletic Injuries
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

Professors:

R. Lewis, Surgent

Associate Professor:

A. Siemann (Chair)

Assistant Professors:

L. Simpson, Strieby

Instructor:

R. Gallagher

Lecturers:

Bosley, M. Siemann

- Upon successful completion of the program, you will be eligible to apply for 7-12 health certification and K-12 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.

MAJOR AND TEACHING CERTIFICATION

Hours Required in KINE:	75
Hours Required in Other Departments:	30
Total Hours Required:	105

Summary of Requirements for Major in Health & Physical Education

Major

1. Discipline Core: (57 hours)

Health Education (26 hours)

HEED 100	Personal Wellness
HEED 104	Foundations of Health Education
HEED 208	Health Education for Special Populations
HEED 230	Assessment Design in Health & PE
HEED 232	School Health 1: ATOD and Safety Education
HEED 233	School Health 2: Human Sexuality & Nutrition Education
HEED 234	School Health 3: Disease Prevention
HEED 311	Assessment & Evaluation Methodology
HEED 416	Curriculum Design in Health Education
HEED 418	Current Issues in Health

Physical Education (31 hours)

PHEC 103	Foundations of Physical Education
PHEC 164	Teaching of Physical Education Through Outdoor Adventure Education
PHEC 165	Teaching of Physical Education Through Cooperative Team Challenges
PHEC 166	Teaching of Physical Education Through Game and Activity Skills

PHEC	167	Teaching of Physical Education Through Educational Gymnastics
PHEC	168	Teaching of Physical Education Through Dance Forms
PHEC	169	Teaching of Physical Education Through Health Fitness
PHEC	301	Applied Biomechanics
PHEC	310	Organization & Administration of Health and Physical Education
PHEC	402	Adapted Physical Activities
PHEC	406	Applied Physiology
PHEC	407	Motor Learning and Performance
PHEC	408	Movement Experiences for Children
PHEC	416	Curriculum Design in Physical Education

2. Required Courses in Other Departments: (11 hours)

BIOL	149	General Biology I (<i>GEP Group C</i>)
BIOL	211	Essentials of Anatomy and Physiology
GEOG	104	Human Geography (<i>GEP Group D or F</i>)

3. Education Courses (37 hours)

Pre-Phase	EDUC	100	Career Analysis in Education
(4 hours)	EDUC	201	Students, Teachers, and Learning Environments

Phase I	EDUC	202	Foundations of Learning & Instruction
(7 hours)	EDUC	346	Educational Technology Lab I
	REED	317	Content Area Reading

Phase II	EDUC	392	K-12 Field Experience
(11 hours)	EDUC	447	Educational Technology Lab II
	HEED	404	Health Instruction
	PHEC	418	Physical Education in the Secondary School
	REED	418	Reading and Writing Connections

Phase III	EDUC	406	Leadership Seminar
(15 hours)	EDUC	448	Educational Technology Lab III
	PHEC	497	Teaching Internship, K-12 Program (<i>Capstone</i>)

4. Other graduation/program exit requirements

- Successful presentation of a developmental portfolio according to department format.
- Verification of taking Praxis II content knowledge and pedagogy tests required by the Maryland State Department of Education before Phase III.

Health Promotion

Minor

MINOR

Total Hours Required:

21

Coordinator:

Susan Gray,
Professor, Department of Recreation
and Parks Management

- 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

(21 hours)

HLTH	101	Community Health Promotion
HLTH	125	Health and Culture (<i>GEP Group F</i>)
HLTH	330	Epidemiology of Health
HLTH	405	Sexuality
HLTH	430	Methods and Materials for Health Promotion
HLTH	435	Health Promotion Programming
		or RECR 382 Program Planning
HLTH	483	Field Experience in Health Promotion (3 cr.)

Recreation and Parks Management

Major

Minor

Concentrations in

- ADVENTURE SPORTS
- COMMUNITY PROGRAM DELIVERY
- HOSPITALITY MANAGEMENT & TOURISM
- THERAPEUTIC RECREATION

Professor:

Kauffman

Associate Professors:

Blankenship, Gray

Assistant Professor:

Dougherty

Affiliated Faculty:

Debra Frank, Allegany College of Maryland; Wilma Brooks, The Community College of Baltimore County, Catonsville Campus; Mike Logsdon, Garrett College

- Program accredited by NRPA/AAPAR (American Association for Physical Activity and Recreation).
- You are required to complete RECR 497, which includes attendance at one state, regional or national conference during your junior or senior year, current certification in CPR and first aid and completion of a professional portfolio and review of the portfolio.
- Current certification in CPR and first aid is required.
- 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.

	No Concentration	Comm. Prg. Delivery	Adventure Sports	Hospitality & Tourism	Thera. Recr.	MINOR
Concentrations:						
Hours Required in Department:	36	48	39	39	51	21
Hours Required in Other Departments:	3	18	12-13	9	29-32	0
Additional Hours Required:	0	0	15	19	0	0
Total Hours Required:	39	66	66-67	67	80-83	21

Summary of Requirements for Major/Minor in Recreation and Parks Management

Major	Minor
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 (<i>Capstone</i>) RECR 495 Internship in Recreation RECR 497 Out-of-class Requirements (<i>see bullets at left</i>)	1. Required Courses: (6 hours) RECR 380 Recreation Leadership RECR 382 Recreation Programming
2. Courses Outside Department: (3 hours) COSC 100/110 Intro. to Computer Science (<i>Tech. Fluency</i>)	2. Electives: (15 hours) <i>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 491, RECR 492 and RECR 495).</i>
3. Complete one of the following: <ol style="list-style-type: none"> a second major a minor an associate degree a bachelor's degree from another institution a concentration within the major as follows: 	

I. Community Program Delivery Concentration (27 hours)

A. Recreation: (12 hours)

Select four of the following:

- RECR 100 Leisure and the Diverse American Culture (*GEP Group*)
- RECR 381 Facilitation Skills and Techniques in Recreation and Parks
- 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

* courses offered only at Garrett College

- The adventure sports concentration is a collaborative program between Garrett College and Frostburg State University.
- You may enroll in this program at Frostburg State University and take adventure sports courses at Garrett College, or you may complete your first two years at Garrett College and then transfer to FSU.
- If you complete the Adventure Sports concentration, you will be eligible to receive an AAS in adventure sports at Garrett College.
- Legal residents of South Carolina, Virginia and West Virginia may complete a recreation and parks management degree (adventure sports concentration only) at Maryland resident tuition rates through the SREB Academic Common Market (see Admissions section of the catalog).

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	271	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

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
or GEOG 455 Tourism Planning		
or **30-120 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		

*Garrett College courses

**Allegany College of Maryland courses

- The therapeutic recreation concentration prepares you to sit for the National Council for Therapeutic Recreation Certification Exam.
- You may complete the B.S. in Recreation and Parks Management with a therapeutic recreation concentration at the main campus or at the CCBC Catonsville campus.
- You may complete a minor in either Psychology or Sociology by taking several additional 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 I***

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***

**Allegany 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
Interpretive Biology & Natural History
Chemistry
Communication Studies
Computer Print Graphics
Computer Information Systems
Computer Science
Cultural Anthropology
Dance
Dental Hygiene Preparation
Dentistry Preparation
Earth Science
Engineering
Engineering: Dual Degree Program
Collaborative Mechanical Engineering
English
Environmental Analysis & Planning
Ethnobotany
Film Studies
Fine Arts
Foreign Languages & Literature
Forestry
Geography
Graphic Design
History
Information Technology
Journalism
Law & Society
Law: Bachelor's/J.D. Dual Degree Program
Law School Preparation
Leadership in Psychology
Mass Communication
Mathematical Sciences
Mathematics
Medical Technology Preparation
Medicine Preparation
Music
Nursing
Nursing Preparation
Occupational Therapy Preparation
Optometry Preparation
Pharmacy Preparation
Philosophy
Physics
B.S. Physics/M.S. Applied Physics Dual Degree
Political Science
Professional Writing
Psychology
Public Administration
Public Relations
Secure Computing & Information Assurance
Social Work
Sociology
Sustainability Studies
Theatre
Urban & Regional Planning
Veterinary Medicine Preparation
Wildlife & Fisheries
Women's Studies

College of Liberal Arts & Sciences Strategic Plan

Vision Statement

The College of Liberal Arts and Sciences will be recognized regionally, throughout the state, and nationally 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 the active participation of stakeholders in the planning and development of programs.
7. We value diversity and an atmosphere of mutual respect and acceptance.
8. We value interdisciplinary collaboration.
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

Professional Certification Program

Coordinator:

Dr. Lisa Morshead, Assistant Professor, Department of Psychology

- You cannot major or minor in addictions counseling.
- Since the Addictions Counseling program is a regional collaboration with Allegany College of Maryland, with shared courses and faculty, you may count enrollments at either Frostburg State University or Allegany College of Maryland to meet the requirement that at least one-half of the credit hours required in the emphasis be completed in residence. However, degree-seeking FSU students cannot register for any of these courses at ACM.
- For transfer students: grades from courses completed while enrolled through Allegany will count in determining whether you meet the 2.0 minimum grade point average in courses in 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

(with joint program at Allegany College of Maryland)

Complete a minimum of 16 credit hours distributed as follows:

a. Required Courses: (13 hours)

ALL of the following:

- 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 a 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 services 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
5. Addictions Treatment Delivery	PSYC 387
6. Treatment Issues and Theory in Addictions	PSYC 388
7. Family Counseling**	no undergraduate course offered
8. Theories of Counseling and Psychotherapy	no undergraduate course offered
9. Human Life Span Development	PSYC 208 or PSYC 210 and 212, SOWK 375
10. Ethics for the Addiction Counselor (1 credit hour)	PSYC 389

***Although FSU does not currently offer an undergraduate course in family counseling, SOWK majors taking SOWK 470, Generalist Practice with Individuals and Families, will find this course helpful in their preparation for family counseling issues covered on the examination.*

African American Studies

Minor

	MINOR
Hours Required in African American Studies:	3-18
Hours Required in Other Departments:	0-15
Total Hours Required:	18

Coordinator:

Dr. Alemseged Abbay, Associate Professor, Department of History

Professors:

Bullamore, Saku (Geography)
Moore (Sociology)
O'Rorke (Political Science)
Rhodes (Visual Arts)

Associate Professors:

Abbay (History)
Makang (Philosophy)
Redmond-Matz (Psychology)
Rogers Thomas (Sociology)

Assistant Professor:

Branam (English)

- 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

Minor

1. Required Core Course: (3 hours)

AAST 200 Introduction to African American Studies (GEP Group F)

2. Elective Courses: (15 hours)

AAST 300/HIST 301 Traditional Africa
AAST 400 Africans of the Diaspora (GEP Group F)
AAST 425 History of African American Theatre
AAST 490 Topics in African American Studies
AAST 494 AAST Practicum
ART 302 Artistic Traditions: Africa and the Americas (GEP Group F)
ENGL 231 African American Literature
GEOG 324 Urban Geography
GEOG 403 Geography of Sub-Saharan Africa
HIST 353 Contemporary Africa
PHEC 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

Minor

	MINOR
Hours Required in Biology:	10-11
Hours Required in Psychology:	12
Total Hours Required:	22-23

Coordinator:

Erica Kennedy, Associate Professor,
Department of Psychology

Professors:

Raesly, 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

Minor

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

	MAJOR	FOR TEACHING CERT. OPTION
Hours Required in Art:	65	65
Hours Required in Other Departments:	0	38.5
Total Hours Required:	65	103.5

Professors:

Brown (chair), Davis, Dieruf,
Rhodes

Associate Professor:

Hodges

Assistant Professors:

Hein, Herzfeld, 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. A certificate 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, particularly in graphic design. Student interns have been placed in government services, design studios, public relations firms and advertising businesses.
- You may elect the teaching certification option (internship required) as part of your bachelor's degree or complete the MAT Secondary/K-12 in art education (See Graduate Catalog).

Summary of Requirements for BFA in Art & Design

Major

1. Basic Courses: (15 hours)

ART 104 Two-Dimensional Design
ART 105 Three-Dimensional Design
ART 212 Drawing
ART 412 Advanced Drawing
ART 207 Graphic Design (*Tech. Fluency*)

2. Introductory Studio: (15 hours)

Choose five courses from:

ART 202 Ceramics
ART 216 Illustration
ART 221 Painting
ART 232 Printmaking
ART 235 Photography
ART 240 Sculpture
ART 307 Computer Graphics or ART 236 Digital Imaging

Note: Students wishing to specialize in Graphic Design must include ART 235, ART 307.

Students seeking certification to teach art must include ART 202, ART 221, ART 232, ART 240.

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

+ *Note: Only students seeking certification to teach art may have a Dual-Media focus in Graphic 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*)

Summary of Requirements for 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.
- Select the following courses in partial fulfillment of the Introductory Studio requirement:
 - ART 202 Ceramics
 - ART 221 Painting
 - ART 232 Printmaking
 - ART 240 Sculpture
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Complete the professional education sequence described in Education: P-12 Programs.

Art History

Minor

	MINOR
Hours Required in Art:	15-18
Hours Required in Other Departments:	3-0
Total Hours Required:	18

Professors:

Brown (chair), Davis, Dieruf, Rhodes

Associate Professor:

Hodges

Assistant Professors:

Hein, Herzfeld, 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.
- You cannot major in Art History.

Summary of Requirements for Minor in Art History

Minor

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)
- 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

	For Major	For Minor	Pre-Health Prof. Option	Mol. Bio Concen.	Env. Science Concen.	Teaching Cert. Option
Major						
Minor						
Pre-health Professions Option						
	Hours Required in Biology:	40-43	21-24	42-44	42-44	40-43
	Hours Required in Other Depts.:	30	0	30	39-40	39
	Total Hours Required:	70-73	21-24	72-74	85-87	114.5-117.5

Concentrations in

- MOLECULAR BIOLOGY
- ENVIRONMENTAL SCIENCE

Teaching Certification Option

See related programs:

- ETHNOBOTANY
- FORESTRY
- INTERPRETIVE BIOLOGY &
NATURAL HISTORY
- WILDLIFE & FISHERIES

Professors:

Raesly (Chair), Seddon, Serfass

Associate Professors:

Ammer, Fritz, H. Li, Pegg

Assistant Professors:

Brosi, Fiscus, Keller, Lambert,
Puthoff, Taylor

- You may elect the teaching certification option (internship required). Select the biology major without concentration to meet certification requirements.

Summary of Requirements for Major/Minor in Biology

Major	Minor
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 402 Evolution BIOL 496 Seminar in Biology (Capstone) 3. Biology Electives: (9-12 hours) <i>Select any 3 classes between the 300 and 455 level</i> 4. Required Courses in Other Departments: (30 hours) Chemistry: CHEM 201 General Chemistry I (GEP Group C) CHEM 202 General Chemistry II CHEM 301 Organic Chemistry I CHEM 302 Organic Chemistry II Mathematics: MATH 109 Elements of Applied Probability & Statistics (Core Skill 3) or MATH 110 Honors: Elements of Applied Probability & Statistics (Core Skill 3) <i>Select one from:</i> MATH 119 College Algebra (Core Skill 3) MATH 120 Pre-Calculus Mathematics (Core Skill 3) or any course above 210 Physics: PHYS 215 General Physics I (GEP Group C) and PHYS 216 General Physics II or PHYS 261 Principles of Physics (GEP Group C) and PHYS 262 Principles of Physics II	1. Introductory Level Courses: (12 hours) BIOL 149 General Biology I (GEP Group C) BIOL 160 General Zoology BIOL 161 General Botany 2. Biology Electives: (9-12 hours) <i>Select any 3 biology courses between the 300 and 455 level.</i>

- Biology is often selected as a major by students planning to enter medicine and other health professions careers. If you plan advanced study in the health professions, you should choose the pre-health professions option.
- If you are a pre-physical therapy or pre-occupational therapy student, you should consult individual allied health program listings for specific program requirements. If you are interested in pursuing graduate studies in other areas of Biology, you should not choose this option.

Pre-Health Professions Option for Biology Majors

(Pre-Dental, Pre-Medical, Pre-Optometry, Pre-Veterinary, Allied Health Fields)

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: (24 hours)

BIOL 304	Microbiology
BIOL 310	Cell Biology
BIOL 340	General Ecology
BIOL 350	Genetics
BIOL 496	Seminar in Biology (Capstone)

Select one of the following pairs of courses:

BIOL 321	Anatomy and Physiology I
BIOL 322	Anatomy and Physiology II
or	
BIOL 302	Animal Physiology
BIOL 427	Comparative Anatomy

3. Electives: (6-8 hours)

Choose two of the following:

BIOL 402	Evolution
BIOL 404	Histology
BIOL 412	General Parasitology
BIOL 435	Molecular Biology
BIOL 440	Developmental Biology
CHEM 455	Biochemistry I

4. Required Advanced Courses in

Other Departments: (30 hours)

Same as major. See #4 above.

- The molecular biology concentration in biology offers you 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.

Summary of Requirements for Major in Biology – Molecular Biology Concentration

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: (11 hours)

BIOL 304	Microbiology
BIOL 310	Cell Biology
BIOL 350	Genetics

3. Molecular Biology Option: (17 hours)

BIOL 401	Genetics Lab
BIOL 435	Molecular Biology
BIOL 437	Molecular Biology Seminar (Capstone)
BIOL 438	Biotechnology Laboratory (3 hours)
BIOL 440	Developmental Biology
BIOL 445	Immunology

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 436	Electron Microscopy
BIOL 499	Special Problems in Biology
or	IDIS 493 Honors Thesis

5. Required Courses in Other Departments: (39 hours)

Chemistry: (25 hours)

CHEM 201	General Chemistry I (GEP Group C)
CHEM 202	General Chemistry II
CHEM 311	Organic Chemistry I
CHEM 321	Organic Chemistry II
CHEM 455	Biochemistry I
CHEM 456	Biochemistry Lab
CHEM 457	Biochemistry II

Mathematics: (6-7 hours)

MATH 109	Elements of Applied Probability & Statistics (Core Skill 3)
or	Math 110 Honors: 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	General Physics I (GEP Group C)
and	PHYS 216 General Physics II
or	PHYS 261 Principles of Physics I (GEP Group C)
and	PHYS 262 Principles of Physics II

- 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.

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)

(Check the prerequisites for other POSC courses before choosing your introductory POSC course)

2. Advanced Level Courses: (36-40 hours)

BIOL	304	Microbiology
BIOL	310	Cell Biology
BIOL	340	General Ecology
BIOL	350	Genetics
BIOL	402	Evolution
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
GEOG	473	Environmental Law
ECON	202	Microeconomics
BIOL	494	Field Experiences in Biological Sciences (Capstone - 6 credits)

3. Required Supporting Courses: (18 hours)

CHEM	201	General Chemistry I (GEP Group C)
CHEM	202	General Chemistry II
CHEM	420	Environmental Chemical Analysis
MATH	109/110*	Elements of Applied Probability & Statistics (Core Skill 3)
MATH	119	College Algebra (Core Skill 3)
		or MATH 120 Pre-Calculus Mathematics (Core Skill 3)
		or any MATH course above 210

4. 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

POSC	330	Politics of Africa
POSC	331	Politics of Latin America
POSC	332	Politics of the Middle East
POSC	450	Environmental Public Policy
GEOG	407	Political Geography

Group III Advanced Humanities

ENGL	440	Literature of the Environment
HIST	409	World Environmental History
PHIL	315	Philosophy and the Environment

Summary of Requirements for Teaching Certification Option in Biology

If you wish to complete a Maryland State approved program in teaching Biology, you must:

- Complete the BA/BS in Biology (without concentration).
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Complete the professional education sequence described in Education: Secondary School Programs.

Interpretive Biology and Natural History

Major

See related programs:

- BIOLOGY
 - PRE-HEALTH OPTION
 - BIOTECHNOLOGY
 - ENVIRONMENTAL SCIENCE
- ENVIRONMENTAL ANALYSIS & PLANNING
- ETHNOBOTANY
- FORESTRY
- WILDLIFE & FISHERIES

Contact:

Sunshine Brosi, Assistant Professor,
Department of Biology

Professors:

Raesly (Chair), Seddon, Serfass

Associate Professors:

Ammer, Fritz, Li, Pegg

Assistant Professors:

Brosi, Fiscus, Keller, Lambert,
Puthoff, Robertson-Thompson

- 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.

	MAJOR
Hours Required in Biology:	35
Hours Required in Other Departments:	26
Total Hours	61

Summary of Requirements for Major in Interpretive Biology and Natural History

Major

1. Introductory Level Courses: (25 hours)

BIOL 149 General Biology I (GEP Group C)
 BIOL 160 General Zoology
 or 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: (19 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 311 Morphology of Fungi and Non-vascular Plants
 BIOL 312 Morphology of Vascular Plants
 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 340 Soil: Genesis, Nature, and Characterization
 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

Chemistry

Major

Minor

Track in:

- TRADITIONAL CHEMISTRY

Concentrations in:

- PROFESSIONAL CHEMISTRY
- BIOCHEMISTRY

Teaching certification option

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.

	MAJOR			Teaching Certification	MINOR
	Trad. Track	Profess. Con.	Biochem. Con.		
Hours Required in Chemistry:	39	52	41	42	25
Hours Required in Other Departments:	20	24	31	66.5	0
Total Hours Required:	59	76	72	108.5	25

Summary of Requirements for Major/Minor in Chemistry

Major	Minor
<p>1. Core Introductory Level Courses: (8 hours) CHEM 201 General Chemistry I (GEP Group C) CHEM 202 General Chemistry II</p> <p>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 320 Quantitative Anal. Chem. CHEM 441 Physical Chemistry Lecture I CHEM 445 Physical Chemistry Lab I CHEM 491 Seminar in Chemistry CHEM 492 Capstone Experience</p> <p>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) or PHYS 261, 262 Principles of Physics I, II (261: GEP Group C)</p> <p>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.</p> <p>5. All majors must earn a C or better in CHEM 201, 202, 311, 320, 321.</p>	<p>1. Core Introductory Level Courses: (8 hours) CHEM 201 General Chemistry I (GEP Group C) CHEM 202 General Chemistry II</p> <p>2. Core Advanced Courses: (17 hours) CHEM 311 Organic Chemistry I CHEM 312 Organic Chemistry Laboratory I CHEM 321 Organic Chemistry II CHEM 322 Organic Chemistry Laboratory II and 9 additional hours in Chemistry, 300 level or above, except 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</p>

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 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.

Requirements for the Teaching Certification Option in Chemistry

1. Core Courses: (47 hours)

Required of all Chemistry majors, listed above.

2. Advanced Courses: (11 hours)

CHEM 442 Physical Chemistry II
 CHEM 446 Physical Chemistry Lab II
 CHEM 455 Biochemistry I
 CHEM 460 Environmental Chemistry
 CHEM 493 Advanced Chemistry Research (1 hour)

3. Required Courses in Other Departments (8 hours)

MATH 238 Calculus III
 BIOL 149 General Biology (GEP Group C)

4. Required Courses in Education (42.5 hours)

See Professional Education sequence for Secondary Programs in the Educational Professions section of this catalog.

Communication Studies

Major	MAJOR	MINOR
Minor	Hours Required in Communication Studies:	36
	Hours Required in Other Department:	6
	Total Hours Required:	42
		18

Tracks In:

- CONFLICT COMMUNICATION STUDIES
- LEADERSHIP COMMUNICATION STUDIES
- PUBLIC COMMUNICATION AND RHETORICAL STUDIES

Associate Professor:

Ruminski (Chair)

Assistant Professor:

Kice

Lecturer:

Stern

- 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.

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:

(18 hours)

Both of the following:

CMST 102/112 Introduction to Human Communication
 CMST 451 Seminar in Communication Theory

and four additional 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 422 Seminar in Rhetorical Criticism
 CMST 485 Issues and Responsibilities of Communication

Computer Print Graphics

Emphasis

Professors:

Brown (chair), Davis, Dieruf, Rhodes

Associate Professor:

Hodges

Assistant Professors:

Hein, Herzfeld, Odone

- The emphasis in Computer Print Graphics is offered by the Department of Visual Arts. The department also offers a B.F.A. in Art and Design and minors in art history, fine arts and graphic design.
- You should consider this emphasis if you are a degree-seeking student in another major who would like to acquire additional skills to enhance your professional marketability or a community member seeking professional education in the technology sector.
- Classes are scheduled so you can complete the emphasis in four semesters.

	EMPHASIS
Hours Required in Art:	24
Hours Required in Other Departments:	0
Total Hours Required:	24

The emphasis in Computer Print Graphics is designed to assist you to:

- Understand the role a computer plays in a graphic designer's career
- Learn the basic functions of the Macintosh computer
- Gain fundamental knowledge of graphic applications like QuarkXpress, Adobe Illustrator, Adobe Photoshop
- Learn reproduction and manipulation of scanned images
- Create comprehensive layouts
- Develop a personal design style and vocabulary based on knowledge of past and contemporary design trends, materials and commercial printing techniques.

Students may transfer a maximum of 12 credits into the program selected from ART 104, ART 105, ART 207, ART 212 and ART 412.

Summary of Requirements for Emphasis in Computer Print Graphics

Emphasis

Students may transfer a maximum of 12 credits into the program selected from ART 104, ART 207, ART 212, and ART 236.

Required Courses: (24 hours)

ART 104	Two-Dimensional Design
ART 207	Graphic Design
ART 212	Drawing
ART 236	Digital Imaging
ART 307	Computer Graphics
ART 407	Advanced Graphic Design: Print (<i>Level I</i>)
ART 407	Advanced Graphic Design: Print (<i>Level II</i>)
ART 414	Advanced Graphic Design: Interactive Multimedia Design

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

Minor

	MAJOR	MINOR
Hours Required in Computer Science:	47	13
Hours Required in Other Departments:	27-28	6
Total Hours Required:	74-75	19

See related programs

- COMPUTER SCIENCE
- INFORMATION TECHNOLOGY

Professors:

Chitsaz, Rinard (Chair)

Assistant Professor:

Amthauer, M. Flinn, Pan, Xiao,
Xu, Zheng

- Computer science courses must have a grade of C or better to be applied towards major or minor requirements.
- You may receive credit by examination for the following courses: COSC 100, 101, 240, 350.

Summary of Requirements for Major/Minor in Computer Information Systems

Major

1. Core Courses: (26 hours)

COSC 101	The Discipline of Computer Science (<i>Tech. Fluency</i>)
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 (<i>Core Skill 3</i>)
MATH 109/110	Elements of Applied Probability and Statistics (<i>Core Skill 3</i>)
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 (<i>Core Skill 2</i>)
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 (<i>Tech. Fluency</i>)
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

Computer Science

Major

Minor

Concentration in

- NETWORKS

Certificates in

- SOFTWARE DEVELOPMENT
- PROGRAMMING
- NETWORKING

See related programs

- COMPUTER INFORMATION SYSTEMS
- INFORMATION TECHNOLOGY

Professors:

Chitsaz, Rinard (Chair)

Assistant Professor:

Amthauer, M. Flinn, Pan, Xiao, Xu, Zheng

- 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	FOR NETWORKS CONCENTRATION	MINOR
Hours Required in Computer Science:	50	50	20
Hours Required in Other Departments:	32	32	0
Total Hours Required:	82	82	20

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	Minor
1. Core Courses: (26 hours) COSC 101 The Discipline of Computer Science (<i>Tech. Fluency</i>) 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	1. Core Courses: (11 hours) COSC 101 The Discipline of Computer Science (<i>Tech. Fluency</i>) COSC 240 Computer Science I COSC 241 Computer Science II
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	2. Electives: (9 hours) <i>Three additional computer science courses. Two must be at the 300-level or above.</i>

Major <i>(continued)</i>	Minor
<p>3. Other Required Courses:</p> <p>Mathematics (14 hours)</p> <p>MATH 236 Calculus I (<i>Core Skill 3</i>)</p> <p>MATH 237 Calculus II</p> <p>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</p> <p>MATH 380 Introduction to Probability & Statistics</p> <p>Science (12 hours): <i>Select two courses from the following:</i></p> <p>BIOL 149 General Biology I</p> <p>CHEM 201 General Chemistry I</p> <p>GEOG 103 Physical Geography</p> <p>PHYS 261 Principles of Physics I: Mechanics</p> <p><i>AND select one course from the following:</i></p> <p>BIOL 160 General Zoology</p> <p>BIOL 161 General Botany</p> <p>CHEM 202 General Chemistry II</p> <p>PHYS 262 Principles of Physics II: Electricity and Magnetism</p> <p>Other (6 hours)</p> <p>CMST 102 Introduction to Human Communication</p> <p>ENGL 338 Technical Writing (<i>Core Skill 2</i>)</p> <p>4. Electives: (6 hours) <i>A minimum of 6 hours in at least two courses</i></p> <p>COSC 305 Computer Ethics</p> <p>COSC 335 Advanced Topics in Computer Networks</p> <p>COSC 345 The Internet and Multimedia Communications</p> <p>COSC 390 Topics in Modern Programming Languages</p> <p>COSC 415 Computer Interfacing</p> <p>COSC 420 Robotics and Industrial Computer Applications</p> <p>COSC 431 Secure Computing</p> <p>COSC 435 Network Implementation and Testing</p> <p>COSC 440 Database Management Systems</p> <p>COSC 444 Introduction to Distributed Programming</p> <p>COSC 445 Network Programming</p> <p>COSC 455 Artificial Intelligence</p> <p>COSC 465 Computer Systems Architecture</p> <p>COSC 475 Interactive Computer Graphics</p> <p>COSC 491 Seminar in Computer Science</p> <p>COSC 494 Field Exp. in Computer/Information Science</p> <p>COSC 499 Individual Problems in Computer Science</p>	

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 and Statistics
or MATH 109/110 Elements of Applied Probability & Statistics
(*Core Skill 3*)

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: (9 hours)

A minimum of 9 hours in at least three courses:

- COSC 305 Computer Ethics
 COSC 310 Data Structures and Algorithm Analysis
 COSC 350 Low-Level Programming Concepts
 COSC 390 Topics in Modern Programming Languages
 COSC 444 Introduction to Distributed Programming
 COSC 445 Network Programming
 COSC 450 Programming Language Principles & Paradigms
 COSC 455 Artificial Intelligence
 COSC 465 Computer Systems Architecture
 COSC 485 Introduction to the Theory of Computation
 COSC 491 Seminar in Computer Science
 COSC 494 Field Exp. in Computer/Information Science
 COSC 499 Individual Problems in Computer Science

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)

- COSC 101 The Discipline of Computer Science (*Tech. Fluency*)
 COSC 240 Computer Science I
 COSC 241 Computer Science II
 COSC 325 Software Engineering

- A study of programming fundamentals and software development methods for a student with basic computing skills.

Programming (14 hours)

- COSC 101 The Discipline of Computer Science *Tech. Fluency*
 COSC 240 Computer Science I
 COSC 241 Computer Science II

And one of the following:

- COSC 310 Data Structures & Algorithm Analysis
 COSC 390 Topics in Modern Programming Languages

- 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.

Networking (17 hours)

- COSC 241 Computer Science II (*COSC 240 is prerequisite for COSC 241. Students may test out of COSC 240*)
 COSC 335 Advanced Topics in Computer Networks
 COSC 365 Digital Logic
 COSC 435 Network Implementation and Testing
 COSC 445 Network Programming

- 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.

MINOR

Hours Required in Sociology:	9-12
Hours Required in other Departments:	6-9
Total Hours Required:	18

Summary of Requirements for Minor in Cultural Anthropology

Minor

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

ENGL 280 Mythology and Literature
GEOG 104/114 Human Geography (GEP Group D or F)
GEOG 110 World Regional Geography (GEP Group D or F)
GEOG 320 Geography of Latin America
or GEOG 403 The Geography of Sub-Saharan Africa
HIST 418 Native Peoples of the Americas (GEP Group F)
INST 150 Introduction to World Religions (GEP Group F)
INST 200 Intro. to International Studies (GEP Group F)
MUSC 117 Music of Africa, Asia, & the Americas (GEP Group F)
SOCI 350 Folklore in Appalachia
SOCI 334 Gender and Social Life
SOCI 306 The Sociology of African Americans

Dance

Minor

Coordinator:

Jamie McGreevy, Coordinator of
Dance minor
Nicole Mattis, Chair, Department
of Theatre and Dance

- You cannot major in Dance.

MINOR

Hours Required in Dance:	21
Hours Required in Other Disciplines:	2-3
Total Hours Required:	23-24

Summary of Requirements for Minor in Dance

Minor

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)

DANC 110 Dance Appreciation (GEP Group A)

Select a minimum of 6 hours from among:

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

Dental Hygiene Preparation

Pre-professional program

PRE-PROFESSIONAL PROGRAM

Total Hours:

61

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)

BIOL 149*	General Biology I	4 hours
BIOL 304*	Microbiology	4 hours
BIOL 321*	Anatomy and Physiology I	4 hours
BIOL 322*	Anatomy and Physiology II	4 hours
CHEM 201*	General Chemistry I	4 hours
CHEM 202*	General Chemistry II	4 hours
CHEM 301*	Organic Chemistry I	4 hours

* All science courses must be taken within 5-7 years of the year you wish to enroll in the program.

2. Non-Science Courses (12 hours)

ENGL 101	Freshman Composition	3 hours
ENGL 310 or 312	Advanced Composition	3 hours
ENGL 338	Technical Writing	3 hours
MATH 109	Elements of Applied Probability and Statistics	3 hours

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)

PSYC 150	General Psychology	3 hours
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5. Sociology (3 hours)

SOCI 100	Introduction to Sociology	3 hours
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6. Nutrition (3 hours)

HEED 200	Nutrition	3 hours
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7. Public Speaking (3 hours)

CMST 122	Introduction to Public Speaking	3 hours
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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.

Earth Science

Major

Concentration in

- ENVIRONMENTAL SCIENCE

Teaching Certification Option

	MAJOR	FOR ENVIRONMENTAL SCIENCE CONCENTRATION	TEACHING CERT. OPTION
Hours Required in Geography:	37	38	43
Hours Required in Other Fields:	14-16	33-3	62.5
Total Hours Required:	51-53	71-72	105.5

Summary of Requirements for Major in Earth Science

Contact:

Fritz Kessler, Chair,
Department of Geography

Participating Faculty:

Professors:

Caupp, Kessler, Precht (Geography)

Associate Professors:

Crawford (Chemistry), Doyle (Physics), Norris (Chemistry)
Pegg (Biology), M. Ramspott (Geography)

Assistant Professors:

Allen (Geography)

- This is a multidisciplinary program jointly administered by the Departments of Geography, Physics, Biology and Chemistry.
- An optional internship is available in Earth Science.
- You may pursue Earth Science middle/secondary teacher certification. Contact the Chair of the Educational Professions Department.
- There is no minor 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 405 Global Climate Systems
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)

A. 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 Teaching Certification Option in Earth Science

If you wish to complete a Maryland State-approved program in teaching Earth Science, you must:

- Complete the BA/BS in Earth Science (without a concentration)
- Select three of the four advanced earth science electives from the following:*
- GEOG/SCIE 335 Oceanography
GEOG 405 Global Climate Systems
GEOG 406 Management and Conservation of Natural Resources
or GEOG 460 Natural Hazards in the Physical Environment
- Select one additional course from:
PHSC 210 Descriptive Astronomy or PHSC 220 The Solar System
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Complete the professional education sequence described in Education: Secondary School Programs

*Some of these courses may require additional prerequisites.

- 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 414 Digital Image Processing and Analysis
 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, Teker

Assistant Professors:

Eltayeb (Chair), E. Moore

BS Engineering at AACC

Located at AACC @ Arundel Mills, a Regional Higher Education Center

The B.S. in Engineering (electrical engineering concentration) is also offered at the Anne Arundel Community College Regional Higher Education Center at Arundel Mills in collaboration with AACC. Students with an associate degree in engineering may complete the bachelor's degree through onsite, interactive video, and online courses offered at Arundel Mills. See page 105.

CONCENTRATIONS

Hours Required in Engineering:

Hours Required in Other Disciplines:

Total Hours Required:

ELECTRICAL

42-44

47

89-91

MATERIALS

47

40

87

MANAGEMENT

34

55

89

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 life-long 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

- Apply knowledge of mathematics, science, and engineering;
- Design and conduct experiments, as well as analyze and interpret data;
- Design a system, component, or process to meet desired needs;
- Function on multi-disciplinary teams;
- Identify, formulate, and solve engineering problems;
- Demonstrate an understanding of professional and ethical responsibility;
- Communicate effectively;
- Demonstrate the broad education necessary to understand the impact of engineering solutions in a global and societal context;
- Recognize the need for, and engage in, life-long learning;
- Demonstrate a knowledge of contemporary issues in engineering;
- Use the techniques, skills, and modern engineering tools necessary for engineering practice.

Summary of Requirements for Major in Engineering

Major

1. Core Courses (56 hours)

ENES 100 Introduction to Engineering Design

ESEE 114 Programming Concepts for Engineers

MATH 236 Calculus I (Core Skill 3)

MATH 237 Calculus II

MATH 238 Calculus III

MATH 432 Differential Equations

CHEM 201 General Chemistry I (GEP Group C)

PHYS 261 Principles of Physics I - Mechanics (GEP Group C)

PHYS 262 Principles of Physics II - E&M

PHYS 263 Principles of Physics III - Acoustics and Optics

PHYS 264 Principles of Physics IV - Thermo. and Mod. Phys.

ENME 350 Electronics and Instrumentation I

ENME 351 Electronics and Instrumentation II

PHYS 491 Seminar

ESEE 408 Capstone Design Project

ENES 401 Fundamentals of Energy Engineering

2. Area of Concentration (31-35 hours)*Majors must choose to concentrate in one of the following areas:***Electrical Engineering (33-35 hours)**

PHYS	312	Electricity and Magnetism
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
ENES	310	Mechatronic and Robotic Design
ENEE	439	Topics in Signal Processing
ENEE	475	Power Electronics

*Two electives from any 300- or 400-level PHYS, CHEM, ENEE or ENME course***Materials Engineering (31 hours)**

ENES	102	Statics
ENES	220	Mechanics of Materials
ENES	221	Dynamics
PHYS	311	Thermodynamics
ENME	331	Fluid Mechanics
ENME	332	Transfer Processes
ENME	382	Engineering Materials and Manufacturing
ENME	405	Fundamentals of Materials Engineering

*Two electives from any 300- or 400-level PHYS, CHEM, ENEE or ENME course***Engineering Management (33 hours)**

ECON	200	Basic Economics OR ECON 201 Principles of Economics (Macro) (GEP Group D)
ENES	102	Statics
ENES	220	Mechanics of Materials
ENES	221	Dynamics
ENEE	204	Basic Circuit Theory
MGMT	251	Management of Organizations
MGMT	315	New Business Ventures OR MGMT 359 Quality Management
MGMT	355	Operations Management
MGMT	356	Leadership and Human Behavior
MKTG	361	Principles of Marketing OR BLAW 291 Legal Environment of Business

One elective from any 300- or 400-level ENEE or ENME course

Engineering

Engineering BS at AACC

Located at AACC @ Arundel Mills,
a Regional Higher Education Center

Total Hours Required at Frostburg State University:

50

Coordinator:

Eric Moore, Assistant Professor

Professors:

Hang Deng-Luzader

Assistant Professors:

Mohammed Eltayeb, Chair
Marjorie Rawhouser, Onsite
Coordinator

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
- Frostburg State University (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.

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 both orally and in writing;
4. Demonstrate motivation for life-long learning for both 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 multi-disciplinary 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, life-long 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 Frostburg State University, 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. 32-33 credits of general education, to include: Freshman Composition, 3 credits in the arts, 6 credits in the humanities, 6 credits in social sciences
2. 3 additional credits (any category)
3. Calculus 1, 2, 3, and Differential Equations
4. Calculus-based physics sequence
5. General Chemistry
6. Engineering coursework to include Introduction to Engineering Design, Circuit Theory, Programming in C, and Digital Logic Design.

Once admitted into the program at AACC at Arundel Mills, students will complete an additional 50 credits of engineering and upper-division general education coursework. The majority of the upper-division courses will be taught on-site at AACC at Arundel Mills Regional Higher Education Center. Several will be delivered via interactive video or through online learning.

Courses at Frostburg State University (50 hours)

IDIS 150 First-Year FSU Colloquium
ENGL 338 Technical Writing
PHYS 312 Electricity and Magnetism
PHYS 491 Seminar
ENES 310 Mechatronic and Robotic Design
ENES 401 Fundamentals of Energy Engineering
ENME 350 Electronics and Instrumentation I
ENME 351 Electronics and Instrumentation II

ENEE 303 Analog and Digital Electronics
ENEE 307 Electronic Circuits Lab
ENEE 350 Computer Organization
ENEE 408 Capstone Design Project
ENEE 439 Topics in Signal Processing
ENEE 475 Power Electronics

Two electives from any 300- or 400-level PHYS, CHEM, ENEE, or ENME course. Any two courses offered at FSU.

Engineering

Dual-degree Program

PRE-PROFESSIONAL PROGRAM

Total Hours Required at Frostburg State University:

72-80

Coordinator:

Mohammed Eltayeb, Chair,
Department of Physics and
Engineering

- A dual degree program of Frostburg State University and the University of Maryland, College Park's College of Engineering is available to the student who seeks a career in one of several engineering fields and who also wants a general undergraduate education.
- This program allows you to earn undergraduate degrees from both institutions over a five-year period.
- In this program you attend FSU for approximately three academic years and the University of Maryland, College Park's College of Engineering for approximately two academic years. After completing the academic requirements of FSU — usually at the end of the fourth year (the first year at the University of Maryland, College Park) — you will receive a bachelor's degree from Frostburg State University. Upon meeting all requirements in the Clark School of Engineering, you earn one of several baccalaureate engineering degrees from the University of Maryland, College Park, majoring in any of the following areas:
 - Aerospace Engineering
 - Bioengineering
 - Chemical and Biomolecular Engineering
 - Civil and Environmental Engineering
 - Computer Engineering
 - Electrical Engineering
 - Fire Protection Engineering
 - Materials Science and Engineering
 - Mechanical Engineering

Summary of Requirements at FSU for Dual Degree in Engineering

1. Chemistry: (8-16 hours)

CHEM 201 & 202 General Chemistry I & II (CHEM 201 - GEP Group C)

*CHEM 311 & 312 Organic Chemistry I & II

*Organic chemistry courses required for students in chemical engineering.

2. Computer Science: (4 hours)

COSC 240 Computer Science I

or ENEE 114 Programming Concepts for Engineers

3. Mathematics: (18 hours)

MATH 236, 237, 238 Calculus I, II & III (MATH 236 - Core Skill 3)

MATH 420 Advanced Calculus, or MATH 436 Mathematical Physics

MATH 432 Differential Equations

4. Engineering: (3 hours)

ENES 100 Intro to Engineering Design

5. Physics: (39 hours)

PHYS 261 Principles of Physics I (GEP Group C)

PHYS 262 Principles of Physics II

PHYS 263 Principles of Physics III

PHYS 264 Principles of Physics IV

PHYS 310 Classical Mechanics

PHYS 312 Electricity & Magnetism

PHYS 320 Experimental Physics

PHYS 491 Seminar

PHYS 492 Senior Research & Seminar (Capstone)

Choose one track: (9 hours)

a. Traditional Physics

PHYS 311 Thermodynamics

PHYS 417 Quantum Physics

plus one 300-400 level physics elective

b. Engineering Physics

With permission of the Department Chair, as many as 6 credits of mechanical or electrical engineering courses at the 200 level or above may be applied.

Courses listed in the study program not to be applied toward the student's major field of study may be applied toward satisfaction of the General Education Program requirements where appropriate.

Dual Degree Requirements at FSU

1. Completion of required courses in the dual degree study program (listed above), 72-80 semester hours depending on field of engineering.
2. Completion of a minimum of 90 semester hours.
3. Completion of FSU's Core Skill Requirements and Modes of Inquiry in the General Education Program (a waiver of Group E courses, requiring a total of at least 26 credit hours in Modes of Inquiry). Students must complete at least six of the additional nine credits of General Education course work required by the University of Maryland, College Park (Advance Studies CORE requirement) to satisfy the General Education requirements at Frostburg State University.
4. Completion of a major program as approved by the respective Frostburg State Department Chair.
5. Recommendation from the designated official at Frostburg State University (Coordinator of the Dual Degree Program in Engineering).

Requirements for Admission to University of Maryland, College Park

To become a Dual Degree candidate at the University of Maryland, College Park, a student must have satisfied all specified requirements at Frostburg State University. Additionally, the student must have the following:

1. A minimum cumulative 3.0 grade point average at Frostburg;
2. Recommendation from the designated official at Frostburg (Coordinator of the Dual Degree Program in Engineering).

Admission to the College of Engineering of the University of Maryland, College Park is guaranteed to the Frostburg State University Dual Degree student provided the above stated requirements have been satisfied.

Mechanical Engineering

Collaborative Program

Major

MAJOR

Hours Required in Engineering:	66
Hours Required in Other Departments:	40
Total Hours Required:	106

Coordinator:

Mohammed Eltayeb, Chair,
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 UM,CP.
- 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 UM,CP. Therefore, students enrolled in the collaborative program must complete UM,CP'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 UM,CP's admissions standards, you will be accepted into the second half of the program as an engineering major. UM,CP's tuition rates will apply for this part of the program. You must reapply for financial aid and scholarships through UM,CP.
- 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.
- UM,CP requires completion of one Human Cultural Diversity course, focusing on one or more of the following: a) the history, status, treatment, or accomplishment of women or minority groups and subcultures; b) non-Western culture; c) concepts and implications of

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 life-long 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 multi-disciplinary 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 life-long 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

Minimum of 40 credit hours required

Fundamental Studies Requirements

1. Academic and Professional Writing (2 courses, minimum of 6 hours)

ENGL 101/111 Freshman Composition - must be attempted within first 30 credits & passed within first 60

ENGL 338 Technical Writing or ENGL 339 Scientific Writing - must be taken after you have completed 60 credits/junior standing

2. Oral Communication (1 course, minimum of 3 hours)

Choose one of the following:

CMST 102 Introduction to Human Communication

CMST 122 Introduction to Public Speaking

3. Mathematics and Analytic Reasoning (minimum of 3 hours)

MATH 236 Calculus I, required for the Engineering major, fulfills both of these requirements.

Distributive Studies Requirements

1. Natural Sciences and Natural Sciences With Lab (minimum of 7 hours)

PHYS 261 Principles of Physics I: Mechanics and PHYS 262 Principles of Physics II: Electricity and Magnetism, required for the Engineering major, fulfill these requirements.

diversity. If you complete either MUSC 110, MUSC 117 or DANC 110 under Distributive Studies, these courses would also fulfill your diversity requirement. In addition, there are a number of 300-400 level courses that can be taken to fulfill both the Advanced Studies and Diversity requirement. Please consult with your advisor for a listing of approved courses.

- To be granted advanced placement credit for a course, you must meet UM,CP's minimum requirements. These differ from FSU's standards, with a higher score required by UM,CP in a number of areas. Please consult the Engineering Coordinator to verify AP scores required to receive credit.
- Advanced Studies courses should be taken only after completing 56 credits/entering junior standing.

2. Arts and Humanities (2 courses, minimum of 6 hours)

Choose two of the following:

ART	110	Visual Imagery
ART	301	Artistic Traditions: Asia
ART	302	Artistic Traditions: Africa and the Americas
ART	360	Western Art History
THEA	106	Introduction to Theatre
CMST	312	Language Behavior and Communication
ENGL	231	African American Literature
ENGL	250	Honors: Comparative Literature
ENGL	260	British Literature: Beowulf to Present
ENGL	261	American Literature: Colonial to Present
ENGL	290	Topics in Language and Literature
FREN	250	Overview of French Language and Culture
MUSC	110	Introduction to World Music
PHIL	101	Introduction to Philosophy
PHIL	102	Contemporary Ethical Problems
PHIL	302	Philosophy of Religion
PHIL	304	Social Philosophy
PHIL	306	Philosophy of Science
PHIL	308	Political Philosophy
SPAN	250	Overview of Spanish Language and Culture
THEA	106	Introduction to Theatre

3. History and Social Sciences (2 courses, minimum of 6 hours)

Choose two of the following:

AAST	200	Introduction to African American Studies
ECED	150	Early Childhood Foundations
ECON	201	Principles of Economics (Macro)
ECON	202	Principles of Economics (Micro)
EDUC	210	Educational Psychology
GEOG	104/114	Human Geography
GEOG	110	World Regional Geography: Cultural Diversity
HIST	103	History of the United States <i>(This can also be used as a Humanities, but you cannot use it to satisfy both requirements.)</i>
HIST	104	History of the United States <i>(This can also be used as a Humanities, but you cannot use it to satisfy both requirements.)</i>
HIST	113	World History
HIST	114	World History
HIST	303	History of Latin America
HIST	304	History of Latin America
HLTH	101	Community Health Promotion
INST	200	Introduction to International Studies
LING	301	Introduction to Language
POSC	110/112	Introduction to American Politics
POSC	113/114	Introduction to World Politics
POSC	324	Criminal Justice Systems
PSYC	150/151	General Psychology
PSYC	212	Adolescent and Adult Development
PSYC	220	Psychology of Women
PSYC	318	Social Psychology <i>(This can also be used as a Scholarship in Practice, but you cannot use it to satisfy both requirements.)</i>
PSYC	450	Multicultural Counseling Issues
SOCI	100/111	Introduction to Sociology
SOCI	200	Social Problems
SOCI	340	Criminology
WMST	201	Introduction to Women's Studies

4. Scholarship in Practice (2 courses, minimum of 6 hours)

At least one course must be outside your major.*

A. Course in Major (3 hours)

ENES	100	Introduction to Engineering Design satisfies this requirement.
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B. Course Outside Major (3 hours)*Choose one of the following:*

- ART 104 Two-Dimensional Design
 ART 212 Drawing
 MCOM 105 Introduction to Mass Communication
 MUSC 101 Music Fundamentals

5. Diversity (minimum of 2 courses, 4-6 hours)**Choose two of the following. At least one must be in the Understanding Plural Societies Category.***A. Understanding Plural Societies (3 hours)**

- AAST 200 Introduction to African American Studies
 ART 301 Artistic Traditions: Asia
 ART 302 Artistic Traditions: Africa and the Americas
 GEOG 110 World Regional Geography: Cultural Diversity
 ENGL 231 African American Literature
 ENG 290 Topics in Language and Literature
 HIST 104 History of the United States
 HIST 113 World History
 HIST 303 History of Latin America
 HIST 304 History of Latin America
 INST 200 Introduction to International Studies
 MUSC 110 Introduction to World Music
 MUSC 250 Women in Music
 POSC 113/114 Introduction to World Politics
 SOCI 224 Cultural Anthropology
 SOWK 305 Racial and Cultural Minorities
 SPED 461 Characteristics of Exceptional Children
 WMST 201 Introduction to Women's Studies

B. Cultural Competence (1-3 hours)

- GEOG 104 Human Geography

Can use a Distributive Studies course to double count for this requirement.*6. I-Series (2 courses, minimum of 6 hours)**

- IDIS 150 First-Year FSU Colloquium (from a department approved list)
 IDIS 350 Advanced FSU Colloquium (from a department approved list)

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 (40 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
 MATH 238 Calculus III
 MATH 432 Differential Equations
 PHYS 261 Principles of Physics I: Mechanics (Meets GEP requirement)
 PHYS 262 Principles of Physics II: Electricity and Magnetism
 PHYS 263 Principles of Physics III: Sound and Light

Summary of Engineering Requirements**1. Required Engineering Courses (39 hours)**

- ENME 232 Thermodynamics
 ENME 350 Electronics and Instrumentation I
 ENME 271 Numerical Methods in Mechanical Engineering
 ENME 331 Fluid Mechanics
 ENME 332 Transfer Processes
 ENME 351 Electronics and Instrumentation II
 ENME 361 Vibration, Controls and Optimization I
 ENME 371 Product Engineering and Manufacturing
 ENME 462 Vibration, Controls and Optimization II
 ENME 382 Engineering Materials and Manufacturing Processes
 ENME 392 Statistical Methods for Product and Process Development
 ENME 400 Machine Design
 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:

Dolly, Idris, Lutz, A. F. Parks, Pula,
R. F. Smith, Snelson

Associate Professors:

Barkley, Branam, R. Brewer,
A. Duncan, S. Duncan (Chair), Ewers,
Kehrwald, LaFemina

Assistant Professors:

Morris, Raucci

Lecturer:

Chapman

- If you wish to obtain secondary school certification, you must complete the Literature Concentration and additional courses and, after graduation, complete the Master of Arts in Teaching.
- 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.

	MAJOR	MINOR
Hours Required in English:	40	24
Hours Required in Other Departments:	0	0
Total Hours Required:	40	24

Summary of Requirements for Major/Minor in English

Major	Minor
1. 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* ** <i>* Must have a C or better to count toward major.</i> <i>** If you wish to obtain teaching certification, you must take both ENGL 306 and ENGL 416.</i> 2. Concentrations (25 hours) <i>Majors must choose one of the following concentrations:</i> <ul style="list-style-type: none"> • Literature • Creative Writing • Professional Writing 	1. Core Curriculum <i>(15 hours-Same as major)</i> 2. Minor Core Requirement (3 hours) ENGL 340 Shakespeare 3. Electives (6 hours) <i>Criteria for electives: Students must take 6 hrs. of literature at the 300/400 level.</i>

Requirements for Literature Concentration

1. Major Core Curriculum: (15 hours - listed above)

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)

Six hours from the following:

ENGL 360 Creative Nonfiction
ENGL 434 Advanced Fiction Writing
ENGL 435 Advanced Poetry Writing

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

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: (19 hours)

ENGL 330 Business Writing
or ENGL 338 Technical Writing
ENGL 336 Journalistic Writing
ENGL 360 Creative Nonfiction
ENG 355 Socially Networked Journalism
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

The Teaching Certification Option is not currently available. If you wish to pursue certification for teaching at the secondary level, you should complete the undergraduate English major and complete the Master of Arts in Teaching program after graduation. 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 330 Business Writing
or ENGL 336 Journalistic Writing
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.

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.

EMPHASIS

Hours Required in English:	12
Hours Required in Other Departments:	0
Total Hours Required:	12

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:

ENGL 330	Business Writing	ENGL 402	Editing and Production
ENGL 336	Journalistic Writing	ENGL 436	Advanced News and Feature Writing
ENGL 338	Technical Writing	ENGL 430	The Composing Processes
ENGL 339	Scientific Writing	ENGL 438	Applied Digital Writing
ENGL 355	Socially Networked Journalism		

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.

EMPHASIS

Hours Required in English:	12
Hours Required in Other Departments:	0
Total Hours Required:	12

Summary of Requirements for Emphasis in the Teaching of Writing

1. Select 3 hours from the following:

ENGL 300	Critical Writing About Literature
ENGL 308	Social Sciences Advanced Composition
ENGL 309	Advanced Composition: Humanities
ENGL 310	General Advanced Composition
ENGL 312	Honors: Advanced Composition
ENGL 330	Business Writing
ENGL 338	Technical Writing
ENGL 339	Scientific Writing

2. 6 hours of ENGL 491 Practicum in the Teaching of Writing

3. Select 3 hours from the following:

ENGL 306	Linguistics
ENGL 416	History of the English Language
ENGL 430	Composing Processes

Environmental Analysis & Planning

Major

Contact:

Fritz Kessler, Chair,
Department of Geography

Participating Faculty:

Professors:

Caupp (Geography), Kessler
(Geography), Precht (Geography),
Raesley (Biology)

Associate Professors:

M. Ramspott (Geography), Pegg
(Biology)

Assistant Professors:

Allen, (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.

	MAJOR
Hours Required in Geography:	46-47
Hours Required in Biology:	21-23
Hours Required in Other Departments:	17-18
Total Hours Required:	84-88

Summary of Requirements for Major in Environmental Analysis and Planning

Major

1. Courses in Biology: (21-23 hours)

BIOL 149 General Biology I (*GEP Group C*)

BIOL 160 General Zoology

or BIOL 161 General Botany

BIOL 314 Plant Taxonomy

BIOL 340 General Ecology

*Take 2 of 4 courses:**

BIOL 303 Plant Physiology

BIOL 304 Microbiology

BIOL 421 Sample Design and Analysis of Plant Communities

BIOL 430 Limnology

** GEOG 445, Biogeography, may be substituted for one of the BIOL electives.*

2. Courses in Geography: (46-47 hours)

GEOG 103/113 Physical Geography (*GEP Group C*)

GEOG 207 Physical Geology and Geomorphology

GEOG 275 Fundamentals of Geographic Data Handling (*Tech. Fluency*)

GEOG 310 Fundamentals of Cartography

GEOG 340 Soil: Genesis, Nature and Characterization

GEOG 413 Remote Sensing - Image Interpretation

GEOG 430 Surface Water Hydrology

GEOG 470 Soil & Water Engineering

GEOG 472 Environmental Planning (Capstone)

GEOG 473 Environmental Law

Take four of eleven courses:

GEOG 208 Earth System History

GEOG 317 Principles of Geographic Information Science

GEOG 414 Digital Image Processing and Analysis

GEOG 417 Geospatial Analysis

GEOG 431 Quaternary Environments

GEOG 432 Groundwater Hydrology

GEOG 433 Surveying and Field Techniques

GEOG 441 Soil Analysis

GEOG 471 Engineering for Land Development

GEOG 475 Glacial/Periglacial Geomorphology

GEOG 476 Fluvial/Coastal Geomorphology

3. Required Courses in Other Departments: (17-18 hours)

CHEM 201 General Chemistry I (*GEP Group C*)

CHEM 202 General Chemistry II

ENGL 338 Technical Writing (*Core Skill 2*)

MATH 109 Elements of Applied Probability and Statistics (*Core Skill 3*)

MATH 220 Calculus for Applications

or MATH 236 Calculus I (*Core Skill 3*)

Ethnobotany

Major

Minor

	MAJOR	MINOR
Total Hours Required:	71	20-21

See related programs:

- BIOLOGY
- CULTURAL ANTHROPOLOGY
- ENVIRONMENTAL ANALYSIS & PLANNING
- FORESTRY
- GEOGRAPHY
- INTERPRETIVE BIOLOGY & NATURAL HISTORY
- SUSTAINABILITY STUDIES
- WILDLIFE & FISHERIES

Coordinator:

Sunshine L. Brosi, Assistant Professor,
Department of Biology

Participating Faculty:

Professors:

Precht

Associate Professors:

Biser, (Chemistry), R.S. Fritz,
Li (Biology), Rogers Thomas
(Sociology)

Assistant Professors:

Brosi, Fiscus, Puthoff (Biology)

- 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.

Summary of Requirements for Major in Ethnobotany

Major

1. Scientific Foundations (22 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)
GEOG 103 Physical Geography (GEP Group C)
MATH 109/110 Elements of Applied Probability and Statistics (Core Skill 3)
MATH 119 College Algebra (Core Skill 3)
or MATH 120 Pre-Calculus (Core Skill 3)
or any math course above 210

2. Ethnobotany Core (13 hours)

BIOL 128 Introduction to Ethnobotany
BIOL 328 Economic Botany
BIOL 428 Ethnographic Field Techniques (capstone)
BIOL 460 Field Experiences in Forestry

3. Botany and Plant Ecology (24 hours)

GEOG 445 Biogeography
BIOL 303 Plant Physiology
BIOL 305 Dendrology
BIOL 312 Morphology of Plants
BIOL 314 Plant Taxonomy
BIOL 340 General Ecology
BIOL 425 Forest Ecology and Conservation

4. Cultural Perspectives (12 hours)

GEOG 104 Human Geography (GEP Group D or F)
or GEOG 110 World Regional Geography (GEP Group D or F)
SOCI 224 Cultural Anthropology (GEP Group F)
SOCI 350 Folklore in Appalachia

Minor

1. Scientific Foundations (4 hours)

BIOL 149 General Biology I (GEP Group C)

2. Ethnobotany Core (7 hours)

BIOL 128 Introduction to Ethnobotany

Select one additional course from:

BIOL 328 Economic Botany
BIOL 428 Ethnographic Field Techniques
BIOL 460 Field Experiences in Forestry

3. Botany and Plant Ecology (3 hours)

GEOG 445 Biogeography

4. Cultural Perspectives (3 hours)

SOCI 224 Cultural Anthropology (GEP Group F)

5. Electives (3-4 hours)

Select one additional course from:

BIOL 303 Plant Physiology
BIOL 305 Dendrology
BIOL 312 Morphology of Plants
BIOL 314 Plant Taxonomy
BIOL 340 General Ecology
BIOL 425 Forest Ecology and Conservation
GEOG 104 Human Geography (GEP Group D or F)
or GEOG 110 World Regional Geography (GEP Group F)
SOCI 350 Folklore in Appalachia

Film Studies

Minor

MINOR

Total Hours Required:

18

Coordinator:

Dr. Kevin Kehrwald,
Associate Professor, Department
of English

Participating Faculty:

Professors:

A.F. Parks, R.F. Smith (English)

Associate Professor:

Kehrwald (English)

Assistant Professor:

McAlexander (Mass Communication)

- The minor is open to students majoring in any field.
- You cannot major in film studies.

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

Minor

1. Required Core Courses: (9 hours)

- ENGL 207* Introduction to Film Studies (Fall)
ENGL 208* Film and American Culture
(Spring, even-numbered years)
ENGL 344* Film Theory (Spring, odd-numbered years)

**Must have C or better to count toward minor.*

2. Elective Courses: (9 hours)

- ENGL 281 Literature into Film (variable)
ENGL 282 Shakespeare on Film (Fall, odd-numbered years)
ENGL 345 Film Genre (Fall, even-numbered years)
ENGL 421 Jane Austen in Literature and Film (variable)
MCOM 287 Intro to Video Production (every semester)
MCOM 387 Multi-Camera Studio Production (Fall)

Relevant Special Topics courses will be welcomed as electives as approved by the Coordinator.

Fine Arts

Minor

MINOR

Hours Required in Art:

21

Hours Required in Other Departments:

0

Total Hours Required:

21

Professors:

Brown (chair), Davis, Dieruf, Rhodes

Associate Professor:

Hodges

Assistant Professors:

Hein, Herzfeld, 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.
- You cannot major in Fine Arts.

Summary of Requirements for Minor in Fine Arts

Minor

1. Basic Courses: (6 hours)

- ART 104 Two-Dimensional Design
ART 105 Three-Dimensional Design

2. Art History and Critical Studies: (3 hours)

Choose 3 credits from:

- 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 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 236 Digital Imaging
ART 240 Sculpture

4. Advanced Studio Art: (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

Teaching Certification Option

	MAJOR	MINOR	TEACHING CERTIFICATION OPTION
Hours Required in Foreign Languages & Literature:	48	18	48
Hours Required in Other Departments:	0	0	0
Total Hours Required:	48	18	48

Students are strongly encouraged to keep work from all their courses in anticipation of the senior seminar.

Summary of Requirements for Major/Minor in Foreign Languages & Literature with a Concentration in Spanish

Major	Minor
1. Core Curriculum (9 hours) SPAN 211 Spanish Grammar, Composition & Conversation I* SPAN 212 Spanish Grammar, Composition & Conversation II SPAN 250 Overview of Spanish Language & Culture <i>(GEP Group B)</i>	1. Core Curriculum (9 hours) SPAN 211 Spanish Grammar, Composition & Conversation I* SPAN 212 Spanish Grammar, Composition & Conversation II SPAN 250 Overview of Spanish Language & Culture <i>(GEP Group B)</i>
2. Advanced Courses (36 hours) <i>Eleven upper-level Spanish courses, four of which must be at the 400 level</i> SPAN 489 Capstone in Spanish	2. Advanced Courses (9 hours) <i>Any three 300 or 400-level courses in Spanish</i>
3. Linguistics (3 hours) LING 301 Introduction to Language	

Summary of Requirements for Minor in Foreign Languages & Literature with a Concentration in French

1. Core Curriculum (9 hours)
 FREN 211 French Grammar, Composition & Conversation I *
 FREN 212 French Grammar, Composition & Conversation II
 FREN 250 Overview of French Language & Culture *(GEP Group B)*

2. Advanced Courses (9 hours)
Any three 300 or 400-level courses in Spanish

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 on line 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.

Associate Professor:

Sanchez (Chair)

Assistant Professors:

Houser, Martinez

- At least half of the credit hours required in your major language (Spanish) must be taken at FSU.
- Foreign language majors who have courses transferred from a foreign institution at the 300 or 400 level must take at least one 300 or 400 level course at FSU after they return and prior to graduation.
- Only courses in which a grade of C or better is earned will count towards satisfaction of major or minor requirements.
- A minor in French is also offered.
- The department also offers course work in intercultural studies, literature in translation, and linguistics.
- Courses in Italian, Chinese and Japanese are offered as MDFL courses on an irregular basis.

Summary of Requirements for Teaching Certification Option in Foreign Languages & Literature

If you wish to complete a Maryland State approved program in teaching Spanish, you must:

- Complete the BA in Foreign Languages & Literature (Spanish).
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Complete the professional education sequence described in Education: Secondary School Programs.

Forestry

Minor

	MINOR
Total Hours Required:	23

See related programs:

- BIOLOGY
 - PRE-HEALTH OPTION
 - BIOTECHNOLOGY
 - ENVIRONMENTAL SCIENCE
- ENVIRONMENTAL ANALYSIS & PLANNING
- ETHNOBOTANY
- INTERPRETIVE BIOLOGY & NATURAL HISTORY
- WILDLIFE & FISHERIES

Coordinator:

Sunshine L. Brosi,
Assistant Professor, Department
of Biology

- You cannot major in forestry.

Summary of Requirements for Minor in Forestry

Minor

1. Required Courses: (17 hours)

BIOL 149	General Biology I (GEP Group C)
BIOL 160	General Zoology or 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.

Geography

Major

Minor

	MAJOR	MINOR	MAPPING SCIENCES CONC.	GLOBAL SYSTEMS ANALYSIS CONC.	CLIMATE SYSTEM SCIENCE CONC.
Hours Required in Geography:	41-44	22	42-43	38-39	51
Hours Required in Other Departments:	3	0	12-13	9	6
Total Hours Required:	44-47	22	54-56	47-48	57

Concentrations in:

- CLIMATE SYSTEM SCIENCE
- GLOBAL SYSTEMS ANALYSIS
- MAPPING SCIENCE

See related programs:

- EARTH SCIENCE
- ENVIRONMENTAL ANALYSIS AND PLANNING
- ETHNOBOTANY
- URBAN AND REGIONAL PLANNING

Professors:

Bullamore, Caupp, Kessler (chair),
Precht, Saku

Associate Professor:

M. Ramspott

Assistant Professors:

Allen, Russo

Lecturers:

T. Edwards, A. Lewis

- 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.

Summary of Requirements for Major/Minor in Geography

(without specialized concentration)

Major

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 412 Geographic Visualization
 GEOG 413 Remote Sensing - Image Interpretation
 GEOG 415 Applied Design in the Mapping 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

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 495

Major *continued*

GEOG 450 Urban Planning
 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 300-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.*

Minor *continued***Requirements for Climate System 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 System Science Courses: (22 hours)

GEOG 205 *or* PHSC 205 Descriptive Meteorology
 GEOG 335 Oceanography
 GEOG 405 Global Climate System
 GEOG 429 Synoptic Climatology
 GEOG 469 Dynamic Climatology
 GEOG 430 Surface Water Hydrology
 GEOG 460 Natural Hazards in the Physical Environment

3. Physical Systems Elective: (3 hours)

Select one from:

GEOG 340 Soil: Genesis, Nature & Characterization
 GEOG 431 Quaternary Environments
 GEOG 432 Groundwater Hydrology
 GEOG 445 Biogeography

4. Human Systems Elective: (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 Course: (3 hours)

Select one from:

GEOG 317 Principles of Geographic Information Science
 GEOG 413 Remote Sensing - Image Interpretation
 GEOG 415 Applied Design in the Mapping Sciences
 GEOG 417 Geospatial Analysis

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 I *(Core Skill 3)*

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 412 Geographic Visualization
 GEOG 413 Remote Sensing - Image Interpretation
 GEOG 415 Applied Design in the Mapping 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 435 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 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: (13 hours)

- GEOG 317 Principles of Geographic Information Science (GIS)
 GEOG 413 Remote Sensing - Image Interpretation
 GEOG 499 Research in Geography

Select two courses from among:

- GEOG 412 Geographic Visualization
 GEOG 414 Digital Image Processing and Analysis
 GEOG 415 Applied Design in the Mapping Sciences
 GEOG 417 GeoSpatial Analysis
 GEOG 418 Cartometrics
 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 301 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

Group IV 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*:

(12-13 hours)

- MATH 109 Elements of Applied Probability & Statistics
 (Core Skill 3)

Select one course:

- MATH 119 College Algebra (Core Skill 3)
 MATH 220 Calculus for Applications I
 MATH 221 Calculus for Applications II
 MATH 236 Calculus I (Core Skill 3)
 MATH 237 Calculus II

Select two courses:

- ART 104 Two-Dimensional Design
 ART 207 Graphic Design
 ART 212 Drawing
 COSC 130 Introduction to Programming
 COSC 240 Computer Science I (4 cr.)
 PSYC 306 Sensation and Perception
 PSYC 409 Human Learning and Cognition

*some of these courses may have prerequisites

5. Recommendations:

Students are encouraged to select additional course work:

- MATH 220 & 221 Calculus I and II - especially for remote sensing

Graphic Design

Minor

Professors:

Brown (chair), Davis, Dieruf,
Rhodes

Associate Professor:

Hodges

Assistant Professors:

Hein, Herzfeld, Odone

- Minors are also offered in fine arts and art history. 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.
- You cannot major in Graphic Design.

	MINOR
Hours Required in Art:	21
Hours Required in Other Departments:	0
Total Hours Required:	21

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

History

Major

Minor

	MAJOR	MINOR
Hours Required in History:	39	24
Hours Required in Other Departments:	6	0
Total Hours Required:	45	24

Concentrations in:

- INTERNATIONAL HISTORY
- HISTORY OF THE AMERICAS

Professors:

Boniece, Clulee

Associate Professors:

Abbey, Charney (Chair)

Assistant Professors:

McConnell, G. Wood

- Only courses in which a grade of C or better is earned will count towards satisfaction of major requirements.
- An internship is optional.

Summary of Requirements for Major/Minor in History

Major	Minor
<p>1. Core Introductory Level Courses: (6 hours) <i>Select from:</i> HIST 103 History of the United States HIST 104 History of the United States HIST 113 World History HIST 114 World History</p> <p><i>(The Master of Arts in Teaching (MAT) program requires completion of one of the following sequences: HIST 103 and HIST 104 or HIST 113 and HIST 114)</i></p> <p>2. Research Core: (6 hours) HIST 299 Writing and Research in History <i>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.</i> HIST 485 Seminar in History <i>Must be completed during the senior year with a grade of C or better. Fulfills Capstone Experience in the major requirement.</i></p> <p>3. Concentrations: (27 hours) <i>Majors must choose one of the following concentrations:</i> International History History of the Americas</p> <p>4. Electives (6 hours) <i>Any two 300/400 level history courses</i></p>	<p>1. Core Introductory Level Courses: (12 hours) HIST 103 History of the United States HIST 104 History of the United States HIST 113 World History HIST 114 World History</p> <p>4. Electives (12 hours) <i>Select from any courses at the 300 or 400 level.</i></p>

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	History of China
HIST	459	History of Japan
HIST	475	Genocide and Mass Violence
HIST	481	Experiential History/International
HIST	489	Special Topics in 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/Americas
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	231	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	321	American State and Local Politics
POSC	331	Politics of Latin America
POSC	363	Media and Politics
POSC	421	American Legislative Politics
POSC	427	The American Presidency
POSC	471	American Political Thought
SOCI	307	African Americans in Appalachia
FREN	250 or above	(250 – GEP Group B)
SPAN	250 or above	(250 – GEP Group B)

Information Technology

Major	MAJOR	MINOR
Minor	Hours Required in Computer Science & Information Technology:	43-52
	Hours Required in Other Departments:	18
Tracks in	Total Hours Required:	67-68

- ACCOUNTING
- BUSINESS INFORMATION TECHNOLOGY
- COMPUTER SECURITY
- GRAPHIC ARTS
- MASS COMMUNICATION

See related programs:

- COMPUTER INFORMATION SYSTEMS MAJOR & MINOR
- COMPUTER SCIENCE MAJOR & MINOR
 - CONCENTRATION IN NETWORKS
- CERTIFICATES IN:
 - SOFTWARE DEVELOPMENT
 - PROGRAMMING
 - NETWORKING

Professors:

Chitsaz, Rinard (Chair)

Assistant Professor:

Amthauer, M. Flinn, Pan, Xiao, Xu, Zheng

- Computer science and information technology courses must have a grade of C or better to be applied towards major or minor requirements.
- You may receive credit by examination for the following courses: COSC 100, 101.

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

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

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 one of the following tracks/application areas:

Accounting

ACCT 211 Financial Accounting
 ACCT 212 Managerial Accounting
 ACCT 305 Accounting Systems
 ACCT 311 Intermediate Accounting I

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
 ITEC 452 Network Administration and Security
 ITEC 462 Emerging Issues and Technologies
 ITEC 475 Computer and Cyber Forensics

Graphic Arts

ART 104 Two-Dimensional Design
 ART 105 Three-Dimensional Design
 ART 207* Graphic Design
 ART 307 Computer Graphics

*Students must see department chair for permission to enroll

Mass Communication

MCOM 105 Introduction to Mass Communication
 MCOM 246 Intro to Mass Communication Research Methods
 MCOM 287 Intro to Video Production
 MCOM 346 Mass Communication Theory

Jazz Studies

Minor

MINOR

Hours Required in Music:	22
Hours Required in Other Departments:	0
Total Hours Required:	22

Program Coordinator:

Brent Weber, lecturer

- 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:

Minor

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

Journalism

Minor

MINOR

Total Hours Required:

24

Coordinator:

A. Franklin Parks,
Professor, Department of English

Participating Faculty:

Professors:

Boniece (History), A.F. Parks
(English)

Associate Professors:

Abbey (History), Charney (History),
A. Duncan (English), S. Duncan
(English), Ewers (English)

Assistant Professors:

Gao (History), McConnell (History),
Whalen (Mass Communication),
G. Wood (History)

- 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

Minor

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

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 Bachelors/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

- Complete 91 credit hours with Frostburg State University.
- Complete all of Frostburg State University's general education requirements.
- Maintain cumulative grade point averages as required at FSU for the academic major and overall course work.
- Complete all requirements for an academic major at Frostburg State University.
- 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.
- 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:

- 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.
- 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)

POSC 110 Intro. to American Politics (GEP Group D)
or POSC 112 Honors Intro. to American Politics (GEP Group D)
SOCI 100 Intro. to Sociology (GEP Group D)
or SOCI 111 Honors Intro. to Sociology (GEP Group D)
PHIL 102 Contemporary Ethical Problems (GEP Group B)
or PHIL 201 Ethics

POSC 250 Research Methods
or SOCI 311 Basic Research Methods
POSC 422 American Constitutional Law I
POSC 423 American Constitutional Law II
POSC 489 Law & Society Capstone

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
POSC 324 Criminal Justice Systems
POSC 488 Comparative Legal Systems
PHEC 420 Sport Law and Ethics

Group 2

CMST 302 Argumentation and Advocacy
PHIL 205 Logic
PHIL 304 Social Philosophy
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

Concentration in Criminal Justice (30 hours)**A. Required Courses (30 hours)**

CMST 102 Introduction to Human Communication
 or CMST 122 Introduction to Public Speaking
 PHIL 304 Social Philosophy
 or PHIL 410 Philosophy of Law
 POSC 324 Criminal Justice Systems
 SOCI 200 Social Problems
 or SOCI 203 Deviant Behavior
 SOCI 340 Criminology
 SOCI 443 The American Correctional System

B. Elective Courses (12 hrs)

Select any **FOUR (4)** of the following courses:

POSC 321 American State & Local Politics
 POSC 323 Public Administration

POSC 355 Public Budgeting
 POSC 358 American Public Policy
 POSC 455 Public Program Evaluation
 PSYC 340 Forensic Psychology
 PSYC 386 Drugs & Human Behavior
 SOCI 305 Racial & Cultural Minorities
 SOCI 442 Juvenile Delinquency
 SPAN 101 Basic Elements Of Spanish I
 SPAN 211 Spanish Grammar & Composition

3. Internship: (optional; 9 or 15 hours)

POSC 492 Internship Seminar
 POSC 495 Internship in Political Science

Law School Preparation

Pre-professional program

Pre-law Advisor:

Scott Johnson, Professor,
 Department of Political Science

- While you cannot major or minor in law school preparation, there are law-related courses offered at Frostburg State University.
- Prospective law students should carefully examine the catalog of the law school they wish to attend in order to determine the test requirements for that school.

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:

BLAW 291 Legal Environment of Business	ENGL 338 Technical Writing
CMST 122 Intro. to Public Speaking	GEOG 450 Urban Planning
CMST 225 Interviewing	GEOG 473 Environmental Law
CMST 302 Argumentation & Advocacy	HIST 103,104 History of U.S. I, II
CMST 322 Presentational Communication	PHIL 102 Contemporary Ethical Problems
CMST 451 Seminar in Communication Theory	PHIL 205 Logic
ECON 307 Govt. and Business	PHIL 410 Philosophy of Law
ECON 404 Public Finance	POSC 324 Criminal Justice Systems
ENGL 330 Business Writing	POSC 422,423 American Constitutional Law I, II
ENGL 334 Creative Writing	SOCI 200 Social Problems
ENGL 336 Journalistic Writing	SOCI 443 The Amer. Correctional System

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.

Mass Communication

Major

Professor:

Phipps

Associate Professor:

Lombardi (chair)

Assistant Professors:

Boehm, McAlexander

- Only courses in which you earn a grade of C or better may count towards satisfaction of major requirements.
- All grades earned in courses completed for the major in Mass Communication count in determining whether you meet the graduation requirement of a 2.0 cumulative grade point average in the major.
- All courses completed for the Mass Communication major count in determining whether one-half of the major is completed at FSU.

	MAJOR	MINOR
Hours Required in Mass Communication	30-42	24
Hours Required in Other Departments:	3-15	0
Total Hours Required:	45	24

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* Senior 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 Announcing 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 Announcing and Performance

Minor

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
 MCOM 499* Directed Study

Radio Industry

Choose four from:

MCOM 150 Introduction to Radio
 MCOM 213 Audio Production
 MCOM 250 Announcing 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 356* 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

*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.

Events Planning

Choose four from:

- CMST 102 Introduction to Human Communication
or 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

Mathematics

Major

Minor

Teaching Certification Option

Professors:

Hegde, Hughes, K. Lemmert,
K. Parks, Revennaugh

Associate Professors:

Barnet, Michael (Chair), Wojnar

Assistant Professor:

Forsythe

Lecturer:

N. Tootoonchi

- You may major or minor in Mathematics
- You may elect the teaching certification option with required internship.
- Elementary Education students may elect a specialization in Mathematics.
- You may elect to focus in Mathematical Sciences (*see next section*). The Mathematical Sciences Focus is designed for mathematics, chemistry, and physics majors.
- The department offers an honors program.

	MAJOR	MINOR	TEACHING CERT. OPTION
Hours Required in Mathematics:	39	21	39
Hours Required in Other Departments:	0	0	42.5
Total Hours Required:	39	21	81.5

Summary of Requirements for Major/Minor in Mathematics

Major	Minor
1. Basic Courses (21 hours) MATH 236 Calculus I (Core Skill 3) MATH 237 Calculus II MATH 238 Calculus III MATH 350 Linear Algebra I MATH 470 Mathematical Models and Applications MATH 491 Seminar in Mathematics (Capstone)	1. Basic Courses (12 hours) MATH 236 Calculus I (Core Skill 3) MATH 237 Calculus II MATH 238 Calculus III
2. Electives (18 hours) <i>Select from courses at the 300 or 400 level, except MATH 340 Fundamental Concepts of Geometry or MATH 495 Internship in Mathematics</i>	2. Electives (9 hours) <i>Select from courses at the 300 or 400 level, except MATH 340 Fundamental Concepts of Geometry or MATH 495 Internship in Mathematics</i>

Summary of Requirements for Major in Mathematics - Teaching Certification Option

1. Basic Core Curriculum (21 hours)

- MATH 236 Calculus I (Core Skill 3)
- MATH 237 Calculus II
- MATH 238 Calculus III
- MATH 350 Linear Algebra I
- MATH 470 Mathematical Models and Applications
- MATH 491 Seminar in Mathematics (Capstone)

2. Mathematics Teaching Certification Option Requirements (18 hours)

- MATH 380 Introduction to Probability and Statistics
- MATH 437 Combinatorics and Graph Theory
- MATH 440 Modern College Geometry
- MATH 461 History of Mathematics
- MATH 465 Theory of Numbers
- MATH 415 Foundations of Mathematics
or MATH 451 Modern Higher Algebra

3. Professional Education Sequence (42.5 hours)

Summary of Requirements for Teaching Certification

If you wish to complete a Maryland State approved program in teaching Mathematics, you must:

- Complete the BA/BS in Mathematics - Teaching Certification Option.
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Complete the professional education sequence described in Education: Secondary School Programs

Mathematical Sciences

Focus

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 Focus in Mathematical Sciences

Focus

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 452 Linear Algebra II
MATH 460 Introductory Topology
MATH 465 Theory of Numbers

2. Applied Mathematics: (9 hours)

From among:

MATH 380 Introduction to Probability and Statistics
MATH 420 Advanced Calculus
MATH 426 Introduction to Complex Analysis
MATH 432 Differential Equations
MATH 435 Numerical Analysis
MATH 436 Mathematical Physics

MATH 437 Combinatorics and Graph Theory
MATH 470 Mathematical Models and Applications
MATH 480 Probability and Statistics
MATH 481 Applied Regression Analysis
MATH 492 Internship Seminar

3. Required Courses in Other Departments:

Computer Science (7-8 hours)

From among:

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

	FOCUS
Hours Required in Mathematics:	12
Hours Required in Other Departments:	10-12
Total Hours Required:	22-24

Medical Technology Preparation

Pre-professional program

FOR PRE-PROFESSIONAL PROGRAM

Total Hours: **60 minimum**

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

3. English (6 hours)

ENGL 101/111 Freshman Composition
or ENGL 310/312 Advanced Composition
ENGL 150/250 Intro. to Literature
or an advanced English/American Literature course

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
MATH 109/110 Elements of Applied Probability and Statistics

6. Guided Electives (3 hours)

Choose one course:

CMST 102/112 Introduction to Human Communication
COSC 100/110 Intro. to Computer Science
or an advanced computer science course

7. Social Sciences (6 hours)

Select courses from economics, geography, history, political science, psychology, sociology, African American studies.

8. Electives (minimum 8 hours)

Strongly recommended:

BIOL 160 General Zoology
or BIOL 161 General Botany
BIOL 322 Anatomy and Physiology II
(if not selected as a Biology elective)
BIOL 438 Biotechnology Lab
CHEM 321/322 Organic Chemistry II
PHYS 215 General Physics I and PHYS 216 General Physics II
or PHYS 261 Principles of Physics I

Medicine • Dentistry • Optometry • Veterinary Medicine Preparation

Pre-professional programs

Coordinators and Co-Chairs, Health Professions

Advisory Committee:

Karen Keller, Assistant Professor,
Department of Biology,
William Seddon, Professor,
Department of Biology,
Matthew Crawford, Assistant Pro-
fessor, 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.

BIOL 149 and 160	General Biology I and Intro to Zoology	8 cr.
CHEM 201 and 202	General Chemistry I and II	8 cr.
CHEM 311/312 and 321/322	Organic Chemistry I and II	8 cr.
PHYS 215, 216 or 261, 262	General Physics I, II or Principles of Physics I, II	8 cr.
MATH — 2 courses	*See options in #6	6 cr.

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.

BIOL 302	Animal Physiology	4 cr.	CHEM 320	Quantitative Analytical Chemistry	4 cr.
BIOL 304	Microbiology	4 cr.	CHEM 455, 456, 457	Biochemistry Lec. I & II and Lab	6 cr.
BIOL 310	Cell Biology	4 cr.	ENGL 338	Technical Writing	3 cr.
BIOL 321	Anatomy & Physiology I	4 cr.	MATH 120	Pre-Calculus	3 cr.
BIOL 322	Anatomy & Physiology II	4 cr.	MATH 109 or 380	Probability & Statistics	3 cr.
BIOL 350	Genetics	3 cr.	MATH 236, 237, 238	Calculus I, II, III	12 cr.
BIOL 401	Genetics Laboratory	1 cr.	PHIL 313	Biomedical Ethics	3 cr.
BIOL 404	Histology	4 cr.	SOCI 367	Sociology of Medicine	3 cr.
BIOL 427	Comparative Anatomy	4 cr.			
BIOL 435	Molecular Biology	4 cr.			

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).
		For students taking the MCAT, introductory courses in psychology and sociology are recommended.
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.

Music

Major and minor

Concentrations in:

- VOCAL PERFORMANCE
- MUSIC MANAGEMENT

Track in:

- INSTRUMENTAL PERFORMANCE
- MUSIC STUDIES

Teaching Certification Option

Professor:

Soderberg-Sarnaker

Associate Professor:

M. Gallagher (Chair)

Instructors:

Klickman, 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.

	TEACHING CERT. OPTION	MAJOR CONCENTRATIONS		MAJOR TRACK	
		VOCAL PERFORM	MUSIC MGMT	INSTRUMENTAL PERFORM	MINOR
Hours Required in Music:	61.5	66	66.5-69.5	63	23
Hours Required in Other Depts:	37.5	15-24	21	0	0
Total Hours Required:	99	81-90	87.5-90.5	63	23

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 World Music (*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

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

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 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.

Summary of Requirements for the Instrumental Performance Track

1. Core Courses: (49 hours)

Required for all music majors; listed above.

2. Recital Requirements: (2 hours)

MUSA 390 Junior Recital

MUSA 490 Senior Recital (*Capstone*)

3. Supplementary Requirements: (5 hours)

MUSA 104, 105 Class Piano

MUSA 116-123 Private Instruction

MUSA 356-363 Private Instruction

MUSC 315, 327, 331, 337, 339, 340 Ensembles

4. Other Requirements: (7 hours)

MUSC 310 Basic Principles of Conducting I - Choral

And select four hours from:

MUSA 213 Piano Pedagogy

MUSC 305 Orchestration

MUSC 358 Business of Music and Arts Management

MUSC 360 Special Topics in Music (up to 4 credits)

MUSC 401 Form and Analysis

MUSC 407 Counterpoint

MUSC 499 Individual Research in Music (up to 4 credits)

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

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)

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

3. Supplementary Lesson Requirements: (2 hours)

MUSA 336-363 Private Instruction

4. Supplementary Ensemble Requirements: (2 hours)

Selected from: MUSC 315, 321, 327, 331, 335, 337, 339, 340

5. Capstone Experience: (1 hour)

MUSC 493 Senior Research

Summary of Requirements for the Vocal Performance Concentration

1. Core Courses: (49 hours)

Required for all music majors; listed above

2. Recital Requirements: (2 hours)

MUSA 390 Junior Recital

MUSA 490 Senior Recital (*Capstone*)

3. Supplementary Requirements: (5 hours)

MUSA 104, 105 Class Piano

MUSA 116-123 Private Instruction

MUSA 356-363 Private Instruction

MUSC 315, 327, 331, 337, 339, 340 Ensembles

4. Other Requirements for Vocal Performance Majors: (10 hours)

MUSC 210 Diction

MUSC 310 Basic Principles of Conducting I - Choral

MUSC 401 Form & Analysis

MUSC 413 Vocal Pedagogy

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 300 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

Nursing

RN to BSN Completion Program

Collaborative Transfer Program

Major

	MAJOR
Hours transferred from community college:	30-55
Hours earned with unencumbered RN license:	30
Hours required at Frostburg State:	35-60
Total Hours Required:	120

Coordinator:

Heather A. Gable, Chair,
Department of Nursing

- The RN to BSN Completion Program does not lead to licensure as a registered nurse.
- If you are interested in a career in nursing but are not licensed as a registered nurse, or enrolled in a program leading to licensure, you should follow the pre-professional program in Nursing Preparation described in the catalog to earn admission to an initial licensure program.
- You cannot minor in nursing.
- You must meet all requirements for the Bachelor of Science listed in this catalog.

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 program design is a collaboration among Frostburg State University (FSU), Allegany College of Maryland (ACM), the Western Maryland Health System, and other regional health care providers. Resources, facilities, and expertise are shared to allow the most efficient delivery of coursework and services and to match students with the most appropriate clinical placements.

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. Third or fourth semester students 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 6 credits (limited to NURS 401 and NURS 403) 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 ACM, 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.

CORE SKILLS

- | | | |
|-----------------|--|---------|
| 1. ENGL 101 | Freshman Composition (1) | 3 hours |
| 2. ENGL 308 | Social Sciences Advanced Composition (2) | 3 hours |
| | or ENGL 338 Technical Writing (2) | |
| | or ENGL 339 Scientific Writing (2) | |
| 3. MATH 109/110 | Elements of Applied Probability & Statistics | 3 hours |

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 8 hours

CHEM 100 Chemistry and Society, 201 General Chemistry I or other approved 4 cr. chemistry* 4 hours

BIOL 321 Anatomy and Physiology I (articulated) (1) 4 hours

D. The Social Sciences 6 hours

PSYC 150 Introduction to Psychology (1) 3 hours

SOCI 100 Introduction to Sociology (1) 3 hours

E. The FSU Colloquia 6 hours

IDIS 150 Freshman Colloquium (or a 3 credit interdisciplinary ACM course approved for GEP credit in the "Interdisciplinary and Emerging Issues" category)

IDIS 350 Advanced Colloquium (2) 3 hours

or one additional course from Groups A - D

F. Identity and Difference 3 hours

Total General Education Hours **41 hours**

(1) Course completed as part of ACM Associate Degree in Nursing and included in most nursing programs. 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

ACM's Psychology 203 Human Growth and Development or a Human Growth and Development course from another institution approved by the Program Coordinator. (1)

Total Additional Hours **14 hours**

(1) Course completed as part of ACM Associate Degree in Nursing and included in most nursing programs.

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 (<i>Tech. Fluency</i>)	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
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b. Electives*(choose one of the following):*

CMST 300	Interpersonal Communication	3 hours
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	
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.*

Nursing Preparation

Pre-professional program**PRE-PROFESSIONAL PROGRAM****Total Hours Required:****60****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 & 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 (<i>to be taken in Spring of 2nd year</i>)
MATH 119	College Algebra
MATH 109	Elements of Probability and Statistics

Occupational Therapy Preparation

Pre-professional program

Coordinator:

Karen Keller, Assistant Professor,
Department of Biology

- To apply, candidates must have a **cumulative GPA of 3.0** or better.
- You cannot major or minor in Occupational Therapy Preparation.

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.

- By December 21 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.

Summary of Requirements for Pre-professional Program in Occupational Therapy

Prerequisite Courses: (13 hours)

BIOL 149 General Biology I
or BIOL 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

PRE-PROFESSIONAL PROGRAM

Total Hours:
65

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.

Summary of Requirements for Pre-professional Program in Pharmacy

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
or ENGL 338 Technical Writing
or ENGL 339 Scientific Writing

4. Mathematics (7 hours)

MATH 109/110 Elements of Applied Probability and Statistics
or MATH 380 Introduction to Probability and Statistics
and MATH 236 Calculus I

5. Physics (8 hours)

PHYS 215 General Physics I
and PHYS 216 General Physics II
or PHYS 261 Principles of Physics I
and PHYS 262 Principles of Physics II

6. Humanities (6 hours)

7. Social Sciences (6 hours)

ECON 201 Principles of Economics
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

Philosophy

Major

Minor

	MAJOR	MINOR
Hours Required in Philosophy:	30	18
Hours Required in Other Departments:	0	0
Total Hours Required:	30	18

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)
or PHIL 111 Honors: Introduction to Philosophy (GEP Group B)
PHIL 102 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)
or PHIL 111 Honors: Introduction to Philosophy (GEP Group B)
PHIL 102 Contemporary Ethical Problems (GEP Group B)
PHIL 201 Ethics
PHIL 205 Logic

3. 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.

Associate Professors:

Brill, Makang (Chair), Mathias

Assistant Professor:

Brassfield

Physics

Major

Minor

Tracks in:

- TRADITIONAL PHYSICS
- ENGINEERING PHYSICS

Teaching Certification Option

Professors:

Deng-Luzader, J. Hoffman, Latta,
Plitnik, O. Soysal, Wang

Associate Professors:

Doyle, Teker

Assistant Professors:

Eltayeb (Chair), E. Moore

- You may not use courses listed under the heading Physical Science to satisfy the requirements of a major or minor in Physics.
- FSU and the University of Maryland Baltimore County offer a BS/MS program in Applied Physics. (See the next page of this catalog for more details).
- 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.

	MAJOR	MINOR	TEACHING CERT. OPTION
Hours Required in Physics:	39	21	39
Hours Required in Other Departments:	22	8	63.5-64.5
Total Hours Required:	61	29	102.5-103.5

Summary of Requirements for Major/Minor in Physics

Major	Minor
1. Introductory Level Courses: (8 hours) PHYS 261 Principles of Physics I: Mechanics (<i>GEP Group C</i>) PHYS 262 Principles of Physics II: Electricity & Magnetism	1. Introductory Level Courses: (8 hours) PHYS 261 Principles of Physics I: Mechanics (<i>GEP Group C</i>) PHYS 262 Principles of Physics II: Electricity & Magnetism
2. Advanced Courses: (22 hours) PHYS 263 Principles of Phys. III: Sound/Light PHYS 264 Principles of Physics IV: Thermodynamics & Modern Physics PHYS 310 Classical Mechanics PHYS 312 Electricity & Magnetism PHYS 320 Experimental Physics PHYS 491 Seminar PHYS 492 Senior Research & Seminar (<i>Capstone</i>)	2. Advanced Courses: (13 hours) PHYS 263 Principles of Phys. III: Sound/Light PHYS 264 Principles of Physics IV: Thermodynamics & Modern Physics PHYS 320 Experimental Physics <i>One additional 300-400 level physics or engineering course</i>
3. Required Courses in Other Departments: (22 hours) <i>One of the following:</i> COSC 240 Computer Science I or ENEE 114 Programming Concepts for Engineers <i>All of the following:</i> ENES 100 Intro. to Engineering Design MATH 236 Calculus I (<i>Core Skill 3</i>) MATH 237 Calculus II MATH 238 Calculus III MATH 432 Differential Equations	3. Required Courses in Other Departments: (8 hours) MATH 236 Calculus I (<i>Core Skill 3</i>) MATH 237 Calculus II
4. Choice of Track: (9 hours) <i>Majors must choose a track in:</i> Traditional Physics or Engineering Physics <i>(requirements listed below)</i>	

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.

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 Teaching Certification Option in Physics

If you wish to complete a Maryland State approved program in teaching Physics, you must:

- Complete the BA/BS in Physics - Traditional Physics Track.
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Complete the professional education sequence described in Education: Secondary School Programs.

Applied Physics

Bachelor's/Master's Collaborative Program

Dual-degree Program

Hours Required at FSU	120
Hours Required at UMBC	21
Total Hours Required	141

Coordinator:

Mohammed Eltayeb, Chair,
Department of Physics and
Engineering

- Frostburg State University students may apply three FSU physics courses (nine credit hours) towards an undergraduate degree in Physics from FSU and towards a master's degree in Applied Physics from the University of Maryland, Baltimore County. The three courses which have UMBC equivalents are:
PHYS 312
PHYS 313
PHYS 417
- Since the Applied Physics program at UMBC normally requires 30 credit hours of graduate work, a student in the BS/MS program will be required to complete a minimum of only 141 hours to earn both the BS and MS degrees.

Summary of Program Requirements at FSU:

1. Completion of all requirements for the physics major at Frostburg State University.
2. Completion of the following FSU courses as physics electives: PHYS 313 and PHYS 417.
3. Completion of all Frostburg State University general education and basic baccalaureate requirements.
4. Completion of a total of at least 120 semester hours at FSU.

Requirements for Formal Admission to the Program through UMBC:

1. An application submitted to the FSU Physics Department Chair at the beginning of the junior year. This will include an application form, undergraduate transcripts and three letters of recommendation.
2. A minimum cumulative grade point average of 3.0.
3. Formal application to the UMBC Graduate School for admission to the Applied Physics MS program by December of the senior year. Application procedures are described in the UMBC Graduate Catalog.

Political Science

Major

Minor

	MAJOR	MINOR
Hours Required in Political Science:	37	21
Hours Required in Other Departments:	0	0
Total Hours Required:	37	21

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 the completion of 75 credit hours, all majors must enroll in POSC 490 Capstone Seminar.

Summary of Requirements for Major/Minor in Political Science

Major

1. Introductory Level Courses: (6 hours)

POSC 110/112 Introduction to American Politics (GEP Group D)
and one of the following:

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.*

GROUP I American Politics

POSC 321 American State & Local Politics
POSC 323 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 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

Minor

1. Introductory Level Courses: (6 hours)

POSC 110/112 Introduction to American Politics (GEP Group D)
and one of the following:

POSC 113/114 Introduction to World Politics (GEP Group D) or
POSC 131 Introduction to Comparative Politics
(GEP Group D or F)

*Seminar courses may be applicable to the distribution requirements with the prior approval of the department chair.

Psychology

Major

Minor

Internship Option

Child and Family Psychology Emphasis

Leadership in Psychology Emphasis

Professors:

Bensley, Bradley, Edwards, Herzog,
Peterson, Southerly (Chair)

Associate Professors:

Kennedy, Murtagh, Redmond-Matz

Assistant Professors:

Bernhardt, J. Flinn, Morshead

Lecturer:

Masciocchi

- Majors may elect an internship option and/or any of the following emphases or certificates: Addictions Counseling, Child & Family, Leadership in Psychology.
- 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 at Hagerstown.

Major (continued)

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

Minor (continued)

5. Free Elective Hours in Department: (15 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

	MAJOR	MINOR
Hours Required in Psychology:	39	18
Hours Required in Other Departments:	7	0
Total Hours Required:	46	18

Summary of Requirements for Major/Minor in Psychology

Major

1. Foundation Courses: (9 hours)

PSYC 150 General Psychology
or PSYC 151 Honors: General Psychology (GEP Group D)
PSYC 201 Research Methods in Psychology
PSYC 301 Statistical Methods in Psychology

2. Fundamental Courses: (6 hours)

PSYC 155 Critical Thinking & Scientific Inquiry
PSYC 197 Introduction to the Profession of Psychology
PSYC 397 Career Planning in Psychology

3. Courses in Core Areas: (12 hours)

Select one course in each of four groups.

GROUP A Biological Bases

PSYC 306 Sensation and Perception
PSYC 386 Drugs and Human Behavior
PSYC 420 Physiological Psychology
PSYC 430 Health Psychology

GROUP B Learning and Cognition

PSYC 345 Animal Learning and Cognition
PSYC 409 Human Learning and Cognition
PSYC 485 Behavioral Approaches to Human Problems

GROUP C Developmental Changes Across the Lifespan

PSYC 208 Introduction to Lifespan Development
PSYC 210 Child Development
PSYC 212 Adolescent and Adult Development

GROUP D Sociocultural

PSYC 314 Theories of Personality
PSYC 317 Abnormal Psychology
PSYC 318 Social Psychology

4. Diverse Populations Courses: (3 hours)

Select one of the following:

PSYC 214 Introduction to Geropsychology
PSYC 220 Psychology of Women (GEP Group F)
PSYC 270 Psychological Perspectives of Human Sexuality
PSYC 325 African American Psychology (GEP Group F)
PSYC 404 Psychology of the Exceptional Child
PSYC 489 Abnormal Child Psychology

Minor

1. Foundation Courses: (6 hours)

PSYC 150 General Psychology
or PSYC 151 Honors: General Psychology (GEP Group D)
PSYC 201 Research Methods in Psychology or a departmentally approved research methods course substitution

2. Courses in Core Areas: (12 hours.)

Select one course in each of four groups.

GROUP A Biological Bases

PSYC 306 Sensation and Perception
PSYC 386 Drugs and Human Behavior
PSYC 420 Physiological Psychology
PSYC 430 Health Psychology

GROUP B Learning and Cognition

PSYC 345 Animal Learning and Cognition
PSYC 409 Human Learning and Cognition
PSYC 485 Behavioral Approaches to Human Problems

GROUP C Developmental Changes Across the Lifespan

PSYC 208 Introduction to Lifespan Development
PSYC 210 Child Development
PSYC 212 Adolescent and Adult Development

GROUP D Sociocultural

PSYC 314 Theories of Personality
PSYC 317 Abnormal Psychology
PSYC 318 Social Psychology

Major *(continued)***5. Applied Courses: (3 hours)***Select one of the following:*

PSYC 340	Forensic Psychology
PSYC 360	Industrial/Organizational Psychology
PSYC 387	Addictions Treatment Delivery
PSYC 388	Treatment Issues and Theory in Addictions
PSYC 394	Learning Mentor in Psychology Field Experience
PSYC 408	Tests and Measurements
PSYC 410	Introduction to Counseling
PSYC 445	Research Applications in Animal Behavior and Cognition
PSYC 450	Multicultural Counseling Issues
PSYC 488	Environmental Psychology

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.*

PSYC 213	Psychology of Adjustment
PSYC 250	Death and Dying
PSYC 290	Psychological Issues and Practices
PSYC 303	Psychology of Couples
PSYC 385	Group Processes
PSYC 440	Survey of Family Psychology and Intervention Issues
PSYC 490	Special Topics in Psychology
PSYC 491	Seminar in Psychology
PSYC 498	Readings in Psychology
PSYC 499	Psychology Projects

7. Capstone/Senior Integrative Experience: (3 hours minimum)*Select one of the following:*

PSYC 470	Research Methods Applications
PSYC 481	History and Systems of Psychology
PSYC 492/495	Internship Option
PSYC 497	Senior Seminar

8. Required Courses in Other Departments (7 hours)

BIOL 109	Human Biology and the Environment or BIOL 149 General Biology I (GEP Group C)
ENGL 308	Social Sciences Advanced Composition or ENGL 312* Advanced Composition (Core Skill 2)

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 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

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 Additional Courses:

- A) PSYC 303 Psychology of Couples
- B) PSYC 485 Behavioral Approaches to Human Problems

5. A certificate of completion of the Child and Family Psychology program will be awarded to Psychology majors who complete the above requirements.

Requirements for the Emphasis in Addictions Counseling and for state certification in Alcohol and Drug Counseling are listed under Addictions Counseling this catalog.

Leadership in Psychology

Emphasis

Coordinator:

Megan Bradley, Associate 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).

Public Administration

Emphasis

EMPHASIS

Total Hours Required:

12

Coordinator:

John O'Rorke, Professor,
Department of Political Science

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

POSC 110/112 Introduction to American Politics
POSC 323 Public Administration
POSC 355 Public Budgeting
POSC 455 Public Program Evaluation

Public Relations

Minor

MINOR

Total Hours Required:

24

Coordinator:

A. Franklin Parks, Professor,
Department of English

Participating Faculty:

Professors:

J. Lombardi (Mass Communication),
A.F. Parks (English)

Associate Professors:

A. Duncan (English), Ewers (English),
Hodges (Visual Arts), Ruminski
(Communication Studies)

Assistant Professors:

Dean (Marketing & Finance), Hein
(Visual Arts), Herzfeld (Visual Arts),
McAlexander (Mass Communication),
Ye (Marketing & Finance)

- You cannot major in Public Relations.

Summary of Requirements for Minor in Public Relations

Minor

1. Courses in Communication Studies:

(6 hours)

CMST 300 Interpersonal Communication
or CMST 322 Presentational Communication
CMST 335 Organizational Communication

2. Courses in English: (6 hours)

ENGL 336 Journalistic Writing
ENGL 436 Advanced News and Feature Writing

3. Courses in Other Departments: (12 hours)

ART 207 Graphic Design (*Tech. Fluency*)
ART 235 Photography
MCOM 287 Introduction to Video Production
MKTG 361 Principles of Marketing

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:

ART 104 Two-dimensional Design
BUAD 100 Introduction to Business
CMST 122 Introduction to Public Speaking
ECON 200 Basic Economics (*GEP Group D*)

Secure Computing and Information Assurance

Major	MAJOR	MINOR
Minor	Hours Required in Computer Science & Secure Computing: 61	20
	Hours Required in Other Departments: 12-13	0
See related programs	Total Hours Required: 73-74	20

- COMPUTER INFORMATION SYSTEMS MAJOR & MINOR
- COMPUTER SCIENCE MAJOR & MINOR
 - CONCENTRATION IN NETWORKS
- INFORMATION TECHNOLOGY MAJOR & MINOR
- CERTIFICATES IN
 - COMPUTING TECHNOLOGY
 - SOFTWARE DEVELOPMENT
 - PROGRAMING
 - NETWORKING

Professors:

Chitsaz, Rinard (Chair)

Assistant Professor:

Amthauer, M. Flinn, Pan, Xiao, Xu, Zheng

- You must earn a grade of C or better in all computer science, information technology, and secure computing courses to be applied towards major or minor requirements.
- You may receive credit by examination for the following courses: COSC 100, 101, 240.

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	Minor
1. Core Courses: (25 hours)	
COSC 101 The Discipline of Computer Science (Tech. Fluency)	COSC 101 The Discipline of Computer Science
SCIA 103 Foundations of Secure Computing and Information Assurance	SCIA 103 Foundations of Secure Computing and Information Assurance
SCIA 120 Introduction to Secure Computing and Information Assurance	SCIA 120 Introduction to Secure Computing and Information Assurance
SCIA 210 Introduction to Cyber Law	COSC 240 Computer Science I
COSC 240 Computer Science I	SCIA 370 Security Policy and Assessment
COSC 241 Computer Science II	One additional three-credit Secure Computing & Information Assurance course at the 300 –level or above
SCIA 340 Secure Databases	
SCIA 489 Capstone Course	

Major	Minor
<p>2. Required Advanced Courses: (27 hours)</p> <p>COSC 331 Fundamentals of Computer Networks</p> <p>SCIA 325 Software Security Engineering</p> <p>SCIA 335 Network Security</p> <p>SCIA 360 Operating System Security</p> <p>SCIA 370 Security Policy and Assessment</p> <p>SCIA 460 Cloud Computing and Security</p> <p>SCIA 470 Computer and Network Forensics I</p> <p>SCIA 471 Computer and Network Forensics II</p> <p>SCIA 472 Hacking Exposed and Incident Response</p> <p>3. Other Required Courses: (12-13 hours)</p> <p>CMST 102/112 Introduction to Human Communication</p> <p>ENGL 338 Technical Writing (<i>Core Skill 2</i>)</p> <p>MATH 109/110 Elements of Applied Probability & Statistics (<i>Core Skill 3</i>)</p> <p>or MATH 380 Intro. To Probability & Statistics</p> <p>MATH 220 Calculus for Applications I</p> <p>or MATH 236 Calculus I (<i>Core Skill 3</i>)</p> <p>4. Electives: (9 hours)</p> <p><i>A minimum of 9 hours in at least three courses:</i></p> <p>COSC 305 Computer Ethics</p> <p>ITEC 442 Electronic Commerce</p> <p>SCIA 425 Software Testing and Assurance</p> <p>SCIA 435 Access Control</p> <p>SCIA 480 Applied Cryptography</p> <p>SCIA 485 Emerging Issues and Cyber Warfare</p> <p>SCIA 491 Seminar in Secure Computing and Information Assurance</p> <p>SCIA 494 Field Experience in Secure Computing and Information Assurance</p> <p>SCIA 499 Individual Problems in Secure Computing and Information Assurance</p>	

Social Work

Major

	MAJOR
Hours Required in Social Work:	48
Hours Required in Other Departments:	19
Total Hours	67

Professors:

Connelly, Russell (Chair)

Associate Professors:

Hartsock, Powell

- Since the Social Work curriculum is highly sequential in design, you are encouraged to meet with the department chair as early as possible to discuss declaring your major in social work.
- Only courses in which a grade of C or better is earned will count toward satisfaction of major requirements.
- Academic credit is not given for life or work experiences.
- The Social Work program has a competitive admissions process. Department faculty reserve the right to select those candidates who demonstrate the greatest potential for developing as professional social workers.
- Students with a degree in social work are eligible to earn Maryland State certification as addiction counselors. Several social work courses count towards the requirements. See the Addictions Counselor Preparation section of this catalog.

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

*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.

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)

Sociology

Major

Minor

	MAJOR	MINOR
Hours Required in Sociology:	36	18
Hours Required in Other Departments:	3	0
Total Hours Required:	39	18

Professors:

Connelly, Moore (Chair), Russell

Associate Professors:

McMullen, Rogers Thomas

Assistant Professor:

Hartman, W. Li, Moorehead

Lecturer:

Austin

- 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 at Hagerstown.
- The department also offers a minor in cultural anthropology.
- Internship opportunities are available.

Summary of Requirements for Major/Minor in 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)
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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)

Sustainability Studies

Minor

MINOR

Total Hours Required:

21-23

Coordinator:

Henry Bullamore, Professor
Department of Geography

Steering Committee:

Professor:

Bullamore (Geography)

Associate Professors:

Ewers (English),
Rogers Thomas (Sociology)

Assistant Professors:

Bernhardt (Psychology),
Russo (Geography),
Wood (History),
Ye (Marketing & Finance)

Ex Officio:

J. Hoffman (Dean, College of
Liberal Arts and Sciences),
T. Edwards (Lecturer,
Geography),
Fiscus (CLAS Sustainability
Coordinator)

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 or GEOG 104 Human Geography or 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

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
ECON 410 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 US History
LEAD 401 Citizen Leader
MGMT 405 Business Ethics and Social Responsibility
PHIL 315 Philosophy and the Environment
PHSC 350 Practical Solar Energy
POSC 336 Politics of Food
POSC 450 Environmental Public Policy
PSYC 488 Environmental Psychology
RECR 393 History and Philosophy of Outdoor Recreation
SOCI 366 Social Inequality
SOCI 345 Sociology of the Environment
SOCI 420 Animals in Human Society

*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:

Kouyeas, Shaffer

- 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 Acting Track are required to pass an audition/interview 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/interview for admittance.
- Students changing their primary area of focus must re-audition/interview 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/audition is required for **all** students seeking departmental scholarship consideration.

	MAJOR	ACTING TRACK	DESIGN/TECH. TRACK	THEA. STUDIES TRACK	MINOR
Hours Required in Theatre:	60				21
Hours Required in Core		30	30	30	0
Hours required in Track		30	30	27-33	0
Hours Required in Other Departments:	0	0	0	0	0
Total Hours Required:	60				21

Summary of Requirements for Major/Minor In Theatre

Major

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 120	Acting as a Business I
THEA 208	Acting: Basic Principles and Application
THEA 210	Voice and Movement
THEA 211	Voice and Movement II
THEA 220	Acting as a Business II
THEA 310	Voice and Speech
THEA 318	Acting: Analysis and Performance
THEA 319	Acting in Shakespeare
THEA 320	Acting as a Business III (Acting Capstone)

And nine credits from the following:

DANC 154	Jazz I
DANC 165	Tap I
THEA 360	Stage Combat
DANC 361	Dance for Musical Theatre
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

Minor

1. Core Courses in Theatre: (15 hours)

THEA 106	Introduction to Theatre (GEP LAC Group A)
THEA 107	Introduction to Theatrical Vision (GEP LAC Group A)
THEA 110	Introduction to Acting
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.

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

Coordinator:

Henry Bullamore, AICP, Professor,
Department of Geography

Participating Faculty:

Professors:

Caupp (Geography), Hartlaub
(Political Science), Kauffman
(Recreation & Parks Management),
Kessler (Geography), Moore
(Sociology) Neral (Economics),
O'Rourke (Political Science), Precht
(Geography), Saku (Geography),
Stair (Economics)

Associate Professors:

McMullen (Sociology), Powell
(Social Work)

Assistant Professor:

Russo (Geography)

- This is an interdisciplinary program.
- See the Department of Geography for advising.
- You may not minor in Urban and Regional Planning.
- Frostburg State University is a member of the Association of Collegiate Schools of Planning.
- Completion of the major requirements leads to the professional degree of Bachelor of Science in Urban and Regional Planning. In addition to the requirements listed, degree candidates must meet all requirements listed in the current FSU Undergraduate Catalog for the Bachelor of Science.

	MAJOR
Hours Required in Geography:	32-44
Hours Required in Other Departments:	27-39
Total Hours	71

Summary of Requirements for Major in Urban and Regional Planning

Major

1. Introductory Level Courses: (25 hours)

CMST 102	Introduction to Human Communication or CMST 122 Introduction to Public Speaking
ECON 202	Principles of Economics (Micro)
GEOG 103	Physical Geography (GEP Group C)
GEOG 104	Human Geography (GEP Group D or F)
GEOG 275	Fundamentals of Geographic Data Handling (Tech. Fluency)
MATH 109	Elements of Applied Probability and Statistics (Core Skill 3)
POSC 110	Introduction to American Politics (GEP Group D)
SOCI 100	Introduction to Sociology (GEP Group D)

2. Professional Core Courses: (34 hours)

ECON 404	Public Sector Economics
ENGL 338	Technical Writing or ENGL 308 Social Sciences Advanced Composition or ENGL 310 General Advanced Composition (Core Skill 2)
GEOG 310	Fundamentals of Cartography
GEOG 317	Principles of Geographic Information Science
GEOG 324	Urban Geography: Internal City Patterns
GEOG 325	Urban Geography: Metropolitan Systems
GEOG 380, SOCI 311 or POSC 250	Research Methods
GEOG 421	Regional Planning
GEOG 450	Urban Planning
GEOG 485	Senior Project (Capstone)
POSC 323	Public Administration
SOCI 328	Sociology of Urban Life

3. Electives:*

(6 hours from courses listed below or courses for another focus in 4.)

ECON 408	Urban and Regional Economics
ECON 410	Resource and Energy Economics
ENES 100	Introduction to Engineering Design
GEOG 360	Food Systems
GEOG 406	Management and Conservation of Natural Resources
GEOG 410	Locational Analysis
GEOG 423	Geography of the Suburbs
GEOG 425	Geography of Transportation
GEOG 471	Engineering for Land Development

POSC 358	American Public Policy
RECR 201	Introduction to Recreation and Parks
RECR 342	Park and Facility Design
RECR 443	Current Issues & Legal Liability in Recreation and Parks
SOCI 200	Social Problems
SOCI 305	Racial and Cultural Minorities (GEP Group F)
SOCI 322	Demography
SOWK 371	Social Policy

4. Advanced Planning Focus:*

(6 hours, select one focus)

Community Planning

SOCI 326	Sociology of Rural Life or SOWK 370 Introduction to Social Welfare and Social Work
SOCI 325	Community Analysis

Tourism Development

GEOG 454	Geography of Tourism
GEOG 455	Tourism Planning

Mapping Science

Select two from:

GEOG 413	Remote Sensing—Image Interpretation
GEOG 414	Digital Image Processing and Analysis
GEOG 415	Applied Design in the Mapping Sciences
GEOG 417	Geospatial Analysis

Environmental Planning

GEOG 472	Environmental Planning
GEOG 473	Environmental Law or GEOG 460 Natural Hazards in the Physical Environment

* Completion of Introductory Level and Professional Core courses will fulfill prerequisites for most of these courses. Additional prerequisites may apply for SOWK 371 and GEOG 471.

Wildlife & Fisheries

Major

See related programs:

- BIOLOGY
 - PRE-HEALTH OPTION
 - BIOTECHNOLOGY
 - ENVIRONMENTAL SCIENCE
- ENVIRONMENTAL ANALYSIS & PLANNING
- ETHNOBOTANY
- FORESTRY
- INTERPRETIVE BIOLOGY & NATURAL HISTORY

Contact:

Sunshine Brosi, Assistant Professor,
Department of Biology

Professors:

Raesly (Chair), Seddon, Serfass

Associate Professors:

Ammer, Fritz, Li, Pegg

Assistant Professors:

Brosi, Fiscus, Keller,
Lambert, Puthoff,
Robertson-Thompson

- 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.

	WILDLIFE		PROFESSIONAL FISHERIES
	PROFESSIONAL	GENERAL	
Hours Required in Biology:	45-48	45-50	29
Hours Required in Other Departments:	30-32	20-23	29
Total Hours Required:	75-77	68-70	58

Summary of Requirements for Major in Wildlife & Fisheries

Major

1. Core Curriculum: (36 hours)

BIOL 149 General Biology I (GEP Group C)
 BIOL 160 General Zoology
 or 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)
 or ENGL 338 Technical Writing (Core Skill 2)
 GEOG 103/113 Physical Geography (GEP Group C)
 MATH 109/110 Elements of Applied Probability and Statistics
 (Core Skill 3)

2. Wildlife Core Requirements: (23-24 hours)

Wildlife Management:

BIOL 450 Ecology and Management of Wildlife Populations

Wildlife Techniques:

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

Minor

MINOR

Total Hours Required:

18

Coordinator:

Julie E. Hartman, Assistant Professor,
Department of Sociology

Participating Faculty:

Professors:

Boniece (History), Lutz (English)

Associate Professor:

Branam (English)

Assistant Professors:

Brassfield (Philosophy), J. Flinn
(Psychology), Hartman (Sociology)

- 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

Minor

1. Required Course: (3 hours)

WMST 201 Introduction to Women's Studies (GEP Group F)

2. Elective Courses: (15 hours)

Select five from among the following:

ART 370 Women/Gender and the Visual Arts
 THEA 428 Women Through Theatre
 ENGL 290 Topics in Language & Literature (*when content is appropriate*)
 ENGL 450 Women and Literature
 HIST 436 Women's Issues in World History (GEP Group F)
 MDFL 301 Latin American Women's Issues (GEP Group F)
 MUSC 250 Women in Music (GEP Group F)
 PHIL 409 Philosophy and Women (GEP Group F)
 POSC 365 Women and Politics
 PSYC 220 Psychology of Women (GEP Group F)
 PSYC 270 Psychological Perspectives of Human Sexuality
 SOCI 334 Gender and Social Life
 SOCI 364 Marriage and Family Relationships
 SOCI 366 Social Inequality
 SOCI 466 Women, Health, and Healing
 WMST 491 Seminar in Women's Studies
 WMST 494 Practicum in Women's Studies (*a maximum of 3 credits may be applied to the minor*)
 WMST 499 Independent Study



Inter-College Programs

Inter-College Programs offered at FSU

Honors Program
International Area Studies
International Studies
Leadership Studies
Liberal Studies
Physical Therapy Preparation
Social Science

Inter-College Programs include those interdisciplinary programs that are collaborative ventures among the faculty of more than one college. These programs usually have a steering committee made up of faculty from all participating colleges and departments that recommends program requirements. Members also serve as academic advisors for students. Inter-College programs are housed in the department of the coordinator's primary appointment.

If you like to consider various points of view and want to develop a broad range of skills for employment flexibility, check out the inter-college programs as well as the other interdisciplinary programs offered within the colleges.

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

Honors Program

Director:

Maureen Connelly, Professor,
Departments of Sociology and
Social Work

- Students who have demonstrated a high degree of academic skill, creative talent, and motivation have the opportunity to participate in the University's Honors Program.
- Interested students who think they may qualify for the Honors Program should contact the Director at 301/687-4998.

Hours Required in English:	3
Hours Required in variants of the GEP program:	15-17
Hours Required in Seminars/Thesis	6
Total Hours Required:	24-26

The Honors Program offers a variety of courses specially designed for Honors students. These courses feature content and instructional methods that are challenging, provide a more active role for the student in the learning process, and emphasize understanding more than factual information, and quality of work rather than quantity. These courses seek to magnify problem-solving abilities, effective communications, an awareness of multiple perspectives, and a capacity for independent learning.

Many of the Honors courses are variants of courses included in the University's General Education Program. These variant courses are primarily intended to be taken during a student's first and second years. For juniors and seniors participating in the program, the Honors Seminars, Honors Colloquia, Honors Thesis, and experiential learning projects provide unique environments and opportunities for learning.

In addition to the academic courses, the Honors Program offers a host of co-curricular activities, including the opportunity to reside in Honors/International Housing in Cambridge and Westminster Halls.

Ultimately the program seeks to foster within students dignity, self-esteem, and a knowledge of their own potential as human beings.

Admission Requirements

Incoming first semester students are invited to join the Honors Program at FSU if they have a high school GPA of 3.5 **and** a combined SAT score of at least 1750 (or an ACT score of at least 26).

Students who do not meet both of these requirements may apply for admission to the Honors Program based on the strength of one of these requirements, either an excellent GPA or an excellent SAT/ACT score. Normally, students will not be admitted without at least a 3.25 GPA or a minimum of 1500 on the combined SAT (23 on the ACT). Exceptions can be made on a case by case basis by the Honors Program.

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

Students demonstrating considerable creative ability, as evidenced by papers, projects, creative writing, musical composition, art work, or musical performance may also be admitted on an individual basis.

Summary of Requirements for the Honors Program

Most students participating in the Honors Program are pursuing the distinction of graduating with "Honors in General Education." This distinction is awarded to students who complete the following Honors Program requirements:

- ENGL 111 or ENGL 312
- 15-17 credit hours of Honors variants of General Education Program courses from an approved list
- 6 credit hours from the following:
 - IDIS 351 Honors Advanced Colloquium
 - IDIS 491 Honors Seminar
 - IDIS 493 Honors Thesis

Experiential Learning Option: Approved Study Abroad course, Undergraduate Research Project, Internship, Departmental Recital or other experiential learning experience. Three credits will count for the Honors Program requirement on approval of the Honors Program Advisory Group. Pre-approval necessary.

- Honors students must earn a 3.0 average in all courses applied to meet Honors requirements and have at least a 3.0 cumulative grade point average upon graduation.
- ENGL 111 is required of all students entering the Honors Program as first semester students. Students electing to join this program after their first semester or those who have earned Advanced Placement credit for ENGL 101/111 are required to take ENGL 312.
- Honors Experiential Learning course work, IDIS 493 Honors thesis and IDIS 491 Honors seminars may, with departmental approval, count towards requirements in the major. IDIS 491 credit hours may, with approval of the Honors Program Advisory Group, substitute for portions of the Modes of Inquiry section of the General Education Program.

Grade Repeat Option

Students earning a grade of D,F,FX, or WF in a designated Honors variant course may enroll in the non-honors equivalent and file the grade repeat authorization form requesting that the credit hours attempted and the grade earned in the first, Honors variant course not be used in calculating the cumulative grade point average and cumulative credits. All other regulations concerning the grade repeat option apply (see Course Repetition and Grading in the Academic Standards section of this catalog).

Use of the grade repeat option in this manner constitutes withdrawal from the University's Honors Program.

International Area Studies

Certificate

Coordinator:

Sally Boniece, Professor,
Department of History

- 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

Major

Minor

	MAJOR	INT'L. POLITICS CONC.	INT'L. BUSINESS CONC.	INT'L. ECON CONC.	INT'L. DEVELOPMENT CONC.	MINOR
Total Hours Required:	57-63	63-69	63-69	63-70	63-69	21

Concentration in

- INTERNATIONAL BUSINESS
- INTERNATIONAL POLITICS
- INTERNATIONAL ECONOMICS
- INTERNATIONAL DEVELOPMENT

Coordinator:

Sally Boniece, Professor,
Department of History

Departmental Contacts:

Professors:

Boniece (History),
Hartlaub (Political Science),
Twining (Political Science)

Associate Professor:

Sanchez (Foreign Languages
and Literature)

Assistant Professors:

McCoskey (Economics),
Russo (Geography)

- The International Studies major is interdisciplinary in nature and allows you to choose among four concentrations: International Business, International Politics, International Development and International Economics. The required core courses emphasize the interconnections among these four specializations and provide the solid foundation in history, politics, economics, and geography necessary both for the concentration and future employment.
- You are strongly encouraged to combine this major with a second major or minor, particularly in foreign languages.
- An internship is optional but INST 492 may be used for elective credits.
- Only courses in which a grade of C or better is earned will count toward satisfaction of major requirements.
- The International Studies program also offers the International Area Studies certificate, which is open to majors and non-majors

Summary of Requirements for Major/Minor in International Studies

Major

1. Required Core Courses: (24 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

INTR 330 International Business

MATH 109/119 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)

SOCI 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

INST 150 Introduction to World Religions (GEP Group F)

INTR 330 International Business

MDFL 111 Intercultural Understanding (GEP Group F)

POSC 113/114 Introduction to World Politics (GEP Group D)

or POSC 131 Introduction to Comparative Politics (GEP Group D or Group F)

SOCI 224 Cultural Anthropology (GEP Group F)

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

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 (<i>GEP Group F</i>)
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:**

(24 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 (<i>if internship is relevant to International Politics</i>)
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:**

(24 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
<i>and one of the following pairs of courses:</i>		
FINA	370	Corporate Finance*
FINA	470	International Financial Management
		or
MGMT	251	Management of Organizations
MGMT	450	International Management
		or
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 (<i>GEP Group F</i>)
HIST	409	World Environmental History
INST	492	Internship Seminar (<i>if internship is relevant to International Business</i>)
PHIL	308	Political Philosophy (<i>GEP Group F</i>)
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: (24 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 106 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: (24 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

Leadership Studies

Minor

MINOR

Total Hours Required:

19

Coordinator:

Elesha Ruminski, Department of
Communication Studies

Participating Faculty:

Associate Professors:

Powell (Social Work)
Ruminski (Communication Studies)

Assistant Professors:

McClellan (Management)
Whalen (Mass Communication)

Lecturers:

A. Baer, D. Baer, Bowling,
Mandicott
(Student and Educational Services)

- 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

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

MAJOR

Total Hours Required:

49

Coordinator:

Randall Rhodes, Professor

Participating Faculty:

Thomas Sigerstad, Associate Professor, Department of Management (Business), Gary Austin, Lecturer and Coordinator of Advising, FSU College of Liberal Arts and Sciences Programs, USM at 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.

The Liberal Studies major is an integrative program providing breadth in the arts, humanities, natural and social sciences, and depth in an area of specialization.

The major is adaptable to student interest in technical and/or professional studies and constitutes a desirable preparation for graduate training or for entry and advancement opportunities in a wide array of employment fields requiring a baccalaureate degree.

Summary of Requirements for Major in Liberal Studies

Major

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:

- 3 hours in communication arts course that focuses on writing or speaking.
- 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): (27 hours)

- A minimum of 24 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.
- 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)

Physical Therapy Preparation

Pre-professional program

Coordinator:

Art Siemann, Associate Professor,
Department of Kinesiology

- 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.
- Application requirements for the University of Maryland, Baltimore include:
 - Bachelor's degree (any major)
 - Successful completion (C or better) of the 50 specified credit hours or prerequisite course work
 - Submission of GRE scores.

The following pre-professional courses are required of students interested in the University of Maryland, Baltimore's Doctorate in Physical Therapy Program. Students interested in attending other professional schools should work closely with the coordinator of the Physical Therapy Preparation program to plan an appropriate program.

Summary of Requirements for Pre-professional Program in Physical Therapy

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

5. Psychology (6 hours)

PSYC 150 General Psychology (GEP Group D)

PSYC 317 Abnormal Psychology

6. Electives (6 hours)

Choose two of the following:

HEED 200 Nutrition

HEED 320 Pharmacology and General Medical Conditions

PHEC 303 Biomechanics for Exercise and Sport Science

PHEC 341 Psychology of Physical Activity

PSYC 210 Child Development

PSYC 212 Adolescence and Adulthood

PSYC 320 Health Psychology

PSYC 420 Physiological Psychology

(Consult with Physical Therapy Preparation Coordinator concerning other appropriate electives.)

Social Science

Major

Teaching Certification Option

	MAJOR	TEACHING CERT. OPTION
Hours required in Social Sciences:	60-61	63-64
Hours required in other fields:	6	45.5
Total Hours Required:	66-67	108.5-109.5

Summary of Requirements for Major in Social Science

Major

Coordinator:

Todd A. Rosa, Assistant Professor,
Department of Educational
Professions

Department Contacts:

David Kiriazis,
Chair, Department of Economics;
James Saku,
Chair, Department of Geography;
Paul Charney,
Chair, Department of History;
Stephen Twing,
Chair, Department of Political
Science;
William Southerly,
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.
- Completion of the Social Science major (Teaching Certification Option) is required for approved program teacher certification in secondary social studies.
- Only courses in which you earn a grade of C or better will count towards satisfaction of major requirements in the Social Science Teaching Certification Option.
- **+ indicates a variation in requirements for the Teaching Certification Option.**

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 1 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:

- 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)
- 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
- 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:

- 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
- 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
- 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 each from three of the four groups:

- 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

SOCI 442 Juvenile Delinquency
SOCI 468 Sociology of Later Life

c. Community and Society

SOCI 224 Cultural Anthropology (GEP Group F)
SOCI 322 Social Demography
SOCI 325 Community Analysis
SOCI 326 Sociology of Rural Life
SOCI 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
SOCI 311 Basic Research Methods

4. Social Science Seminar (3 hours)

SOSC 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 Major in Social Science – Teaching Certification Option+

If you want to earn teaching certification in social studies, you must complete the Social Science major described above with the following variations in requirements (footnoted with a + in the major description):

1. Introductory Level Courses: (42 hours)

As above, except:

History (12 hours)

Both of the following sequences:

HIST 103, 104 History of the United States
HIST 113, 114 World History

2. Tracks and 3. Research Methods: (18-19 hours)

Select 2 of the departmental patterns. Include a research methods course as a substitute for any one course in one selected track. See the list of research methods courses in 3. Research Methods in the description of the major above.

History (9 hours)

Three 300- or 400-level history courses. At least one of the courses must be non-western (e.g., Asian, African, Middle Eastern).

3. Other required courses:

COSC 100 Introduction to Computer Science (Tech. Fluency)
or EDUC 346, 447, 448 Education Technology Labs I-III (Tech. Fluency)

Summary of Requirements for Teaching Certification Option in Social Studies

If you wish to complete a Maryland State approved program in teaching Social Studies, you must:

- Complete the BA/BS in Social Science - Teaching Certification Option.
- Meet the phase admissions requirements summarized in the Educational Professions section.
- Complete the professional education sequence described in Education: Secondary School Programs or
- Complete the M.A.T. - Secondary Education program described in the Graduate Catalog, following the completion of the bachelor's degree.

Students who plan to apply for the M.A.T. Secondary Program must complete both the United States (103-4) and World History (113-114) sequences and all other requirements in the Summary of requirements for major in social science.



Course Descriptions

Listed alphabetically by academic department or program

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 behaviour, 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.*

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 106, 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 106 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 106 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. Does not fulfill ACCT major electives requirement. 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.*

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 111 Honors: Art Appreciation**3 cr.**

Introduction to the appreciation and understanding of the representational and visual arts. Focus includes the visual arts' relationship to civilizations' ideas, cultural developments in the humanities, and iconography. Fall. Credit cannot be earned for both ART 100 and ART 111. *Prerequisite: acceptance into the Honors Program or permission of instructor. 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. *Prerequisite: ART 105 or permission of instructor.*

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. *Prerequisites: ART 104 and ART 212, or permission of instructor.*

ART 232 Printmaking**3 cr.**

Introduction to relief, intaglio, planographic, and serigraphic processes. Two hr. lecture, 2 hr. lab. Every semester. *Prerequisites: ART 104 and ART 212, or permission of instructor.*

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 236 Digital Imaging**3 cr.**

Introduction to photography and image manipulation using digital processes. Students will study the basics of traditional still photography, but enhance the learning experience through digital production on the Macintosh computer. An introduction to the computer as a tool in fine arts: camera use, scanning, digital manipulation and output. Two hr. lecture, 2 hr. lab. Variable. *Prerequisites: ART 104 or permission of instructor.*

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. *Prerequisites: ART 105 or permission of instructor.*

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 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, even-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 an internship. Repeatable no more than 4 times for credit. Two hr. lecture, 2 hr. lab. Every semester. *Prerequisites: ART 202 and ART 412, or permission of instructor; 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, ART 307 and ART 412, 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.*
- ART 414 Adv. Graphic Design: Interactive Multimedia Design** 3 cr.
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 407 (twice).*
- 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 212 and ART 216, or permission of instructor.*
- ART 421 Advanced Painting** 3 cr.
Continued study of painting and painting materials through individual problem-solving in objective and non-objective painting; 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 221 and ART 412, or permission of instructor; 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 and ART 412, or permission of instructor; 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. *Prerequisite: 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 hrs. lecture, 2 hrs. lab. Every semester. *Prerequisites: ART 240 and ART 412, or permission of instructor; 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 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 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.
Biology 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. lab. 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 301 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 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 150, BIOL 160 or BIOL 161; CHEM 202. *Corequisite:* CHEM 301 or permission of instructor.

BIOL 313 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 161.

BIOL 314 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 321 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 322 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 328 Economic Botany 3 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 334 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. lab. Every semester. *Prerequisites:* BIOL 150, 160 or 161; CHEM 202 (or CHEM 201 and permission of the instructor); MATH 109/209.

BIOL 350 Genetics 3 cr.

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. *Recommended:* BIOL 304 and 310, CHEM 301.

BIOL 401 Genetics Laboratory 1 cr.

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 3 cr.

Theories, evidences and mechanisms of evolution. Three hrs. lecture. Fall. *Prerequisite:* BIOL 149.

BIOL 404 Histology 4 cr.

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 4 cr.

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 3 cr.

Principles, concepts, and methodologies used in systematic biology. Methods for reconstructing the evolutionary relationships of plant 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 3 cr.

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 161.

BIOL 411 Invertebrate Zoology 4 cr.

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 4 cr.

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 3 cr.

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 3 cr.

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 3 cr.

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** 3 cr.
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** 3 cr.
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** 4 cr.
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** 3 cr.
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** 4 cr.
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** 4 cr.
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** 3 cr.
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** 4 cr.
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** 4 cr.
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 304.*
- BIOL 436 Electron Microscopy for Biologists** 4 cr.
Principles and techniques of electron microscopy; thin and thick sectioning, positive staining. Use of the transmission and the scanning electron microscopes for animal and plant tissues, micro-organisms and particulates. One hr. lecture, two 3-hr. labs. Spring, odd-numbered years. Enrollment limited to 6, preference to students with an active research project. *Prerequisites: BIOL 310, PHYS 216, CHEM 302; cumulative G.P.A. 3.0; permission of instructor.*
- BIOL 437 Molecular Biology Seminar** 1 cr.
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** 3 cr.
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** 3 cr.
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. Variable. *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, odd-numbered years. *Prerequisites: BIOL 304 and BIOL 435.*
- 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 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 reading 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 managerial data base applications using commercial programs. Variable. *Prerequisites: MATH 106 and COSC 100/110 or COSC major.*

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.*

Chemistry

CHEM 100 Chemistry and Society**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 103 Foundations of Chemistry**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**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. Spring. *Prerequisite: Admission to Honors Program or permission of instructor. GEP Group C.*

CHEM 133 General Chemistry for Engineers**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, electro chemistry and nuclear chemistry. Fall. *Prerequisites: CHEM 201 or permission of instructor.*

CHEM 201 General Chemistry I**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. Three hrs. lecture, one 3-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**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. *Prerequisite: CHEM 201.*

CHEM 304 Computational Techniques in Chemistry**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 300 and 304. *Prerequisites: CHEM 201 and 202 or equivalent, or permission of the instructor. Tech. fluency.*

CHEM 305 Research Methods in Chemistry**3 cr.**

Problem solving in organic synthesis. Advanced synthesis, purification and product analysis techniques using modern methods and instrumentation. Searching and critically reading scientific literature. Analysis of safety issues and environmental impact. Spring. Two 3-hr. integrated lecture and lab. *Prerequisite: CHEM 312. Corequisite: CHEM 322.*

CHEM 311 Organic Chemistry I**3 cr.**

Chemistry of the compounds of carbon. Classes and nomenclature of compounds, structure, reactions, mechanisms, spectroscopy and stereochemistry. Three hrs. lecture. Every semester. Not open to students who have credit for former CHEM 301. *Prerequisites: CHEM 201 and 202 or equivalent. Corequisite: CHEM 312.*

CHEM 312 Organic Chemistry Laboratory I**1 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 320 Quantitative Analytical Chemistry** 4 cr.
Theory, methods, and treatment of data pertaining to chemical analysis. Gravimetric, volumetric, potentiometric, electroanalytical, and spectrophotometric applications in the laboratory. Three hrs. lecture, one 3-hr lab. Fall. *Prerequisites:* CHEM 201 and 202; MATH 120 or equivalent. *Corequisite:* PHYS 215 or equivalent, or permission of instructor.
- CHEM 321 Organic Chemistry II** 3 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 322 Organic Chemistry Laboratory II** 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 321.
- CHEM 411 Advanced Inorganic Chemistry** 4 cr.
Covers the application of symmetry operations and group theory in order 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. Fall, even-numbered years. *Prerequisite or corequisite:* CHEM 441 or permission of instructor.
- CHEM 420 Environmental Chemical Analysis** 4 cr.
Explores applications of wet chemical, electroanalytical (potentiometric and amperometric), spectroscopic (UV-Vis, spectrofluorometry and AA) and chromatographic (HPLC, GC, GCMS, TLC) techniques for standard and trace analyses of water, soil, and tissue materials. Emphasis on application of standard protocols, development of experimental technique and sample preparation. Two 3 hr. lectures/lab. Spring, even-numbered years. *Prerequisites:* CHEM 201 and 202.
- CHEM 421 Instrumental Analysis** 4 cr.
Theory and applications of modern instruments for chemical analysis. Electronics, spectroscopic, electrochemical, and chromatographic techniques. Laboratory use of NMR, IR, UV, AA, and GC instruments. Three hrs. lecture, one 3-hr. lab. Spring. *Prerequisite:* 16 cr. in chemistry including CHEM 320, 441, and 445, or permission of instructor.
- CHEM 425 Pharmacological Ethnobotany** 3 cr.
Study of the basic principles of pharmacology with particular emphasis on drugs of botanical origin. Three hours lecture. Spring, even numbered years. *Prerequisite:* CHEM 302.
- CHEM 438 Advanced Organic Chemistry** 3 cr.
Structure and bonding in organic compounds, reactivity, mechanisms of reactions, and application to reaction types. Three hrs. lecture. Spring, odd-numbered years. *Prerequisites:* CHEM 301 and 302.
- CHEM 441 Physical Chemistry Lecture I** 3 cr.
Theory and applications of the principles of physical chemistry. Equilibria, gas laws, thermodynamics, electrochemistry, structures, and properties. Three hrs. lecture. Fall. *Prerequisites:* 16 cr. in Chemistry from the following: CHEM 201, 202, 301, 302, 320; MATH 238; and PHYS 215 and 216 or equivalent or permission of instructor.
- CHEM 442 Physical Chemistry Lecture II** 3 cr.
Quantum theory, statistical thermodynamics, chemical dynamics, spectroscopy, and structures. Three hrs. lecture. Spring. *Prerequisite:* CHEM 441.
- CHEM 445 Physical Chemistry Laboratory I** 1 cr.
Experimental physical chemistry. One 3-hr. lab. Fall. *Prerequisite or corequisite:* CHEM 441.
- CHEM 446 Physical Chemistry Laboratory II** 1 cr.
Continuation of CHEM 445. One 3-hr. lab. Spring. *Prerequisite or corequisite:* CHEM 442.
- CHEM 455 Biochemistry I** 3 cr.
The chemistry and metabolism of biological compounds, biochemical thermodynamics, enzyme mechanisms, and kinetics. Three hrs. lecture. Fall. *Prerequisites:* CHEM 301 and 302; 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.
A continuation of Biochemistry I. Metabolic processes and their conservation among widely divergent organisms. Cell processes, their interrelation and regulation. Biochemical techniques and their applications to a variety of current biological problems. Three hrs. lecture. Spring. *Prerequisite:* CHEM 455 or equivalent.
- 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. Fall. *Prerequisite:* junior or senior standing.
- 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. *Prerequisites:* senior status, CHEM 491 and CHEM 493 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 301); 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.

Communication Studies

- 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.

COMPUTER SCIENCE & INFORMATION TECHNOLOGIES

- 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 335 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 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. *Corequisite:* 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 interns register for 12 credits in 495, 3 credits in 492 and may not enroll in any other courses. Part-time interns must register for 6 credits in 495 and 3 credits in 492. Graded P/F. Summer. *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 220 Introduction to Software Applications 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. *Prerequisite:* Grade of C or better in COSC 100 or COSC 110.

COSC 240 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 241 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 236 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; (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 interleaving. 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 488 Information Technology Mgmt. Portfolio Capstone**0 cr.**

Creation of an information technology management portfolio consisting of best examples of projects, programs, and research papers that demonstrate achievement of the established learning goals for this major. Every semester. *Prerequisites:* 90 credits and completion of required FSU major courses.

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. *Prerequisites:* Grade of C or better in core courses and written permission of faculty supervisor. DEPARTMENTAL APPROVAL REQUIRED PRIOR TO REGISTERING.

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 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; up to 3 credits count in major. Every semester. *Prerequisite:* junior or senior standing and completion of the core courses in Computer Science with grade of C or better. DEPARTMENTAL APPROVAL REQUIRED PRIOR TO REGISTERING.

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 limitation, 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 REGISTERING.

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 COSC331 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 325.

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.

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.*
- DANC 408 Choreography and Production** 3 cr.
Procedures for choreographing, producing and directing dance productions. Variable. *Prerequisite: 2 credits in dance or permission of instructor.*

DANC 429 Special Topics in Dance 1 to 3 cr.
Advanced analysis and practice in movement; varying topics. Repeatable for maximum of 6 credits. *Prerequisite: 2 credits in dance technique or permission of instructor.*

DANC 471 Principles of Teaching Dance 3 cr.
Theory and practice of dance instruction, including methods and materials. Two lectures and one lab/week. Variable.

DANC 479 Teaching Practicum 1 cr.
Application of theory and skills acquired in DANC 471. The student, under supervision, will teach dance in an authentic setting. Variable. *Prerequisite: DANC 471.*

Economics

ECON 200 Basic Economics 3 cr.
Introductory 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 106 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 economics; 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.
Theory of consumer behavior and demand. Production and cost theory and firm behavior under varying circumstances. Distribution theory. Spring. *Prerequisites:* ECON 201/211 and ECON 202/212.
- 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, LaGrangian 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.
- ECON 490 Special Topics in Economics** 1-3 cr.
Applications of economic principles to a variety of specialized topics. Repeatable for maximum of 6 credits if topics are substantially different. Variable. *Prerequisites:* ECON 201/211 and 202/212 or permission of instructor.

- ECON 491 Seminar in Economics** 3 cr.
Research papers on a selected theme for critical analysis by members of the seminar. Leadership in discussion expected. Designed primarily for economics majors. Spring. *Prerequisites:* ECON 351, ECON 352 and ECON 407 or ECON 460; or senior standing. Capstone.
- ECON 492 Internship Research Paper** 3 cr.
Separately graded academic portion of the internship, required in conjunction with ECON 495. Graded A through F. The entire internship (492 and 495) is for a total of 15 credits for full-time interns and 9 credits for part-time interns. May be counted in the major/minor as an elective. Variable. *Corequisite:* ECON 495.
- ECON 494 Field Experience in Economics** 3 cr.
Supervised field experience for Economics majors and minors relating to operations in economic research, business economics, or governmental agencies. A detailed written and oral report on the experience is required. No more than one field experience may be applied towards graduation. Graded A-F. May be counted toward major/minor as an elective. Every semester. *Prerequisites:* junior or senior standing; minimum of 12 hours in Economics; approval of the department internship committee.
- ECON 495 Internship in Economics** 6 or 12 crs.
Guided work experience with an academic component. Work must be directly related to academic program. Full-time interns register for 12 credits and may not enroll in any other courses (except 492). Part-time interns register for 6 credits. This experiential component is graded P/F. May not be counted toward major or minor requirements. Variable. *Prerequisites:* junior or senior status, in good academic standing; minimum of 12 hours in economics; submission of a completed Internship Agreement Form to the departmental internship director prior to registration. *Corequisite:* ECON 492.
- ECON 499 Individual Problems in Economics** 1-6 cr.
Individual research and formal report on a major topic not covered in regular course. Proposal must be submitted prior to registration. Variable. *Prerequisites:* senior standing, at least 15 hours of economics and consent of department chair.

Educational Professions

- EDUC 100 Career Analysis in Education** 1 cr.
Analysis of education in America and the potential roles to be played both in schools and in the wider community. A preliminary self assessment of how the students' interests and abilities match the demands of the educational profession. Portfolio development. Observations with reflections. Every semester. *Required:* taken prior to admission to Phase I. *Recommended:* taken within first 2 semesters at Frostburg State University.
- EDUC 200 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 ten 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 201 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. May be taken concurrently with EDUC 200/202. *Prerequisite:* completion of 30 hours.
- 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. Concurrent enrollment required in EDUC 200. May be taken concurrently with EDUC 201. *Prerequisite:* admission to Phase I.
- 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.

EDUCATIONAL PROFESSIONS

- 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 & 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 316 Foundations of Middle Grades Instruction** 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: admission to 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.*
- EDUC 355 General Music Methods in the Secondary School** 3 cr.
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 Starts 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. Joint supervision by school system and university personnel. Some assignments and responsibilities coordinated with concurrent secondary block courses. Minimum length of practicum equal to 30 half-days (120 clock hours). Graded P/F. Fall. *Prerequisites: successful completion of first semester of Phase II courses and concurrent enrollment in remaining Phase II course requirements.*
- EDUC 392 K-12 Field Experience** 1 to 2 cr.
Teacher assistantship in elementary and secondary settings. Requires 60 hours 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** 4 cr.
Design, implementation, and use of various assessment instruments. Qualitative analysis of student performance. Assessment of students, instructional activities, and environments. Communication of assessment data. Elements of developmentally appropriate classroom management. Management strategies for student behavior, curriculum, materials, and resources. Every semester. *Prerequisite: successful completion of Block I.*
- 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 Intern Seminar: 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, material 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 & Instructional Techniques 3 cr.

Learn about Logo as a language for learning about computers, computer programming, and thinking. Emphasis will be 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 Middle School Curriculum and Methods 3 cr.

The middle school movement; the middle school student and curriculum; teaching in the middle school; middle school organization. Every semester. *Prerequisite: Phase II admission or permission of Department Chair.*

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 or 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 497 HPE Capstone.*

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 & 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 & 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 & 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,

EDUCATIONAL PROFESSIONS

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 & 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 & 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 & Assessment 3 cr.

Planning, constructing, and organizing curriculum; types of curricula. Methods, materials, content, and assessment for teaching P-8 Science. Every semester. *Prerequisite: admission to Phase II.*

ELED 475 Social Studies Curriculum, Methods & Assessment 3 cr.

Planning, constructing, and organizing curriculum; types of curricula. Methods, materials, content, and assessment for teaching P-8 Social Studies. Every semester. *Prerequisite: admission to Phase II.*

ELED 494 Teaching Internship I: P-8 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/F. 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-8 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. *Prerequisites: successful completion of Internship I and admission requirements for Phase III. Capstone.*

Guidance**GUCC 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. Every semester. *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. Taken with Secondary Block. Not open to students with credit for former REED 318. Spring. *Prerequisite: Phase II admission.*

REED 420 Assessment for Reading Instruction 3 cr.

Understanding of the use of national, state, 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, for retrieving materials, and for 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 & 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. *Prerequisite: REED 420 and 422.*

REED 450 Classroom Techniques in Diagnosis & 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. *Prerequisite: REED 420 and 422.*

REED 473 Reading Instruction 3 cr.

Knowledge of best practices and instructional strategies which focus on the purposes for reading. How to use a balanced program of phonics, semantics, and syntactics in teaching reading. Methods, materials, and content for teaching reading in grades N-8. Knowledge of early identification and intervention strategies for low achieving readers. Every semester. *Prerequisite: Phase II admission.*

Secondary Education**SCED 410 Secondary Methods and Curriculum 3 cr.**

Evolution of the philosophy of secondary education. Current curricula, planning, issues, and instructional methodologies in all secondary teaching areas. Required for secondary education majors. Not open to students with credit for former SCED 310. Spring. *Prerequisite: Phase II admission.*

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 life-long 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 496 Teaching Internship II: Secondary Education 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. Every semester. *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. Every semester. *Prerequisite:* Phase II admission.

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. Variable. *Prerequisite:* at least one course in curriculum.

Engineering**Engineering Sciences****ENES 099 Introduction to Workshop and Machine Shop 1 cr.**

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 3 cr.

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 3 cr.

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 219 Essentials of CAD 2 cr.

Introduction to computer-aided design (CAD) mechanical design automation software. Build parametric models of parts and assemblies; make drawings of those parts and assemblies. Fall.

ENES 220 Mechanics of Materials 3 cr.

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 3 cr.

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 3 cr.

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 permission of department chair.

ENES 320 Wind and Solar-Powered Generation System Design 3 cr.

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 3 cr.

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:* Senior standing, Physics 263, and permission of the department chair.

Electrical Engineering

**** Courses marked UMCP Course are offered only for students completing the previous UMCP/FSU collaborative electrical engineering program. A limited selection of UMCP ENEE courses is offered as needed.**

ENEE 114 Programming Concepts for Engineers 4 cr.
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 3 cr.
Basic circuit elements: resistors, capacitors, inductors, sources, mutual inductance and transformers; their I-V relationships. Kirchoff's Laws. DC and AC steady-state analysis. Phasors, node and mesh analysis, superposition, theorems of Thevenin and Norton. Transient analysis for first- and second-order circuits. Three hrs. lecture and one hr. discussion/recitation per week. Spring. *Prerequisite: PHYS 262. Corequisite: MATH 432.*

ENEE 206 Fundamental Electric & Digital Circuit Laboratory 2 cr.
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 3 cr.
Introduction to error analysis, conditioning and stability of algorithms. Numerical solution of nonlinear equations. Vector spaces and linear transformations. Matrix algebra. Gaussian elimination. LU factorization, matrix inversion. Similarity transformations and diagonalization. Iterative computation of eigenvalues. Interpolation, splines, data fitting. Numerical integration. Three hrs. lecture and one hr. discussion/recitation per week. Fall. *Prerequisites: ENEE 114, MATH 237.*

ENEE 244 Digital Logic Design 3 cr.
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. *Prerequisite: ENEE 114.*

ENEE 303 Analog and Digital Electronics 3 cr.
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 invertors, 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 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.*

Mechanical Engineering

**For course descriptions of elective courses available in mechanical engineering, please refer to the Clark School of Engineering catalog of the University of Maryland, College Park.

ENME 232 Thermodynamics 3 cr.
FSU Course. Introduction to thermodynamics. Thermodynamic properties of matter. First and second law of thermodynamics, cycles, reactions, mixtures. Variable. *Prerequisites: PHYS 261 and 262.*

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. *Prerequisite: ENES 221.*

ENME 320 Thermodynamics 3 cr.
UMCP Course. Properties, characteristics and fundamental equations of gases and vapors. Application of the first and second laws of thermodynamics in the analysis of basic heat engines, air compression vapor cycles. Flow and non-flow processes for gases and vapors. Spring. *Prerequisites: PHYS 261, PHYS 262, and MATH 237.*

ENME 331 Fluid Mechanics 3 cr.
FSU Course. Principles of fluid mechanics. Mass, momentum and energy conservation. Hydrostatics. Control volume analysis. Internal and external flow. Boundary layers. Modern measurement techniques. Computer analysis. Laboratory experiments. Two hrs. lecture and two hrs. lab per week. Fall. *Prerequisites: A "C" or better in ENES 221, ENME 232 or 320.*

ENME 332 Transfer Processes 3 cr.
FSU Course. The principles of heat transfer. Conduction in solids. Convection. Radiation. Modern measurement techniques. Computer analysis. Two hrs. lecture and two hrs. lab per week. Spring. *Prerequisite: A "C" or better in ENME 331.*

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. Not open to students who have credit for former ENME 252. Fall. *Prerequisite: A "C" or better in PHYS 263.*

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.
UMCP Course. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical description of system response, system stability, control and optimization. Optimal design of mechanical systems. Spring. *Prerequisites: ENES 220, ENES 221, ENME 271, and MATH 432.*

ENME 371 Product Engineering and Manufacturing 3 cr.
FSU Course. Business aspects of engineering product development. Relationship of design and manufacturing. Product specification. Statistical process control. Design team development. The development process. Fall. *Prerequisites: ENES 221 and ENME 392/ENME 391.*

ENME 382 Engineering Materials & Manufacturing Processes 3 cr.
FSU Course. Basic material structures and properties. Mechanical behavior of materials. Manufacturing processes theory. Materials processing. 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.
Working stresses, stress concentration, stress analysis and repeated loadings. Design of machine elements. Kinematics of mechanisms. Fall. *Prerequisite: ENME 361.*

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.
UMCP Course. Continuation of ENME 361. Fundamentals of vibration, controls, and optimization. Analysis and design in time, Laplace and frequency domains. Mathematical descriptions of system response, system stability, control and optimization. Optimal design of mechanical systems. Fall. *Prerequisites: ENME 351 and ENME 361.*

ENME 472 Integrated Product and Process Development 3 cr.
FSU Course. Integration of product development with the development process. Design strategies. Product architecture. Design for manufacturing. Selection of materials. Design for assembly. Two hours lecture and two hours lab per week. Spring. *Prerequisite: A "C" or better in ENME 371. Capstone.*

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 argumentative 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 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 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. *Prerequisites: C or better in ENGL 101 or 111. Prior literature course at the 200-level required. Core Skill 2.*

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. Fall. *Prerequisites: C or better in English 101 or 111; and at least 42 credits or permission of instructor. 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 ENGL 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 resumés, 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 338 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 339 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. Every semester. *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 towards 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 3 cr.

Requires nine work-hours per week of practical writing experience in an approved, supervised, professional setting. Every semester. Repeatable for a maximum of 6 credits if experience is substantially different. *Prerequisites: Junior or senior standing and permission of the faculty coordinator.*

ENGL 495 Internship in English 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 1 credit in 492. Part-time interns 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 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 playwright and theatrical professionals. Fall, even-numbered years. *Prerequisite: ENGL 101 or 111 or equivalent. Also offered as THEA 206.*

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. Variable. *Prerequisite: C or better in ENGL 101 or 111 or equivalent.*

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 Theory 3 cr.

Critical survey of world film with an emphasis on theoretical schools and movements. Three hours discussion with a weekly film viewing. Spring, odd-numbered years. *Prerequisites: ENGL 101 or 111 or equivalent, ENGL 207 or permission of instructor.*

ENGL 345 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 philosophical, 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: Twentieth Century**3 cr.**

World drama during the 20th century. Representative dramatists and forms from both the West and the East. Multicultural emphasis on the variety of dramatic forms. Spring, odd-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 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. Fall, odd-numbered years. *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. Spring. 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.*

Environmental Humanities**HUMA 495 Project in Environmental Humanities****3-9 crs.**

Guided field experience supplemented by appropriate readings and written reports leading to a substantial research paper or to a creative project. Both experiential and academic components are graded P/F. *Prerequisite: Completion of all other courses in the minor and permission of the Environmental Humanities Committee.*

Environmental Policy**EPOL 491 Seminar in Environmental Policy****3 cr.**

Designed to synthesize course work in Environmental Policy. Required of students completing a minor in Environmental Policy. Students will select topics, make presentations, and participate in discussions. Variable. *Prerequisite: permission of coordinator.*

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 106 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 3 cr.

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.

Investment opportunities in financial instruments. Valuation of fixed income, equity, and derivative securities. Evaluation of mutual funds. Investment strategies for portfolio management: portfolio selection, diversification, and performance analysis. Spring. *Prerequisite: FINA 370 or ACCT 312.*

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.

FOREIGN LANGUAGES & LITERATURE

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 century 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.**

Continued development of basic skills. Emphasis on active performance. Language laboratory. Spring. *Prerequisite: FREN 101.*

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 410 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.
Continued development of basic skills. Emphasis on active performance. Language laboratory. Variable. *Prerequisite: SPAN 101.*

SPAN 211 Spanish Grammar, Composition, & Conversation I 3 cr.
Intensive grammar, oral command of the language, introduction to expository writing. Language laboratory. For students with at least two years of high school Spanish, or SPAN 102. Every semester.

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 332 Spanish for the Professions I 3 cr.
Emphasis on intensive conversation and acquisition of vocabulary pertinent to the professions while focusing on the Spanish-speaking professional culture. Conducted in Spanish. 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 435 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.*

GEOGRAPHY

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, radiation, clean and dirty air, clouds and precipitation, atmospheric electricity, and weather forecast and modification. Field work included. Also offered as PHSC 205. Spring.

GEOG 207 Physical Geology and Geomorphology 4 cr.

A process oriented approach to develop a fundamental understanding of geology and geomorphology. Experiential 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. Paleogeography, paleotectonics, 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 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: Internal City Patterns 3 cr.

Introduction to urban North American land use and social activities. Theories of internal urban patterns, present patterns, and implications for the future. Housing patterns, commercial and industrial activities, urban transportation, political fragmentation, and the potential role of urban planners. Spring. *Prerequisite:* GEOG 104/114 or GEOG 110 or sophomore standing.

GEOG 325 Urban Geography: Metropolitan Systems 3 cr.

Introduction to urban areas and their distribution. Locational characteristics of cities as centers of manufacturing, distribution, and services. Historic growth patterns and planning strategies for future development. Fall. *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-Sahara 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 Global Climate System** 3 cr.
Overview of the global climate system. Ocean-atmosphere, land-surface-atmosphere and biosphere-atmosphere interactions. Oscillations and teleconnections. Variability and climate change. Fall. *Prerequisite:* GEOG 103/113. GEOG 205/PHSC 205 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 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.
- GEOG 412 Geographic Visualization** 3 cr.
Explores cartographic applications of computer animation, multimedia presentations and interface design for research, data exploration, and visual communication of geo-spatial ideas. Spring even-numbered years. *Prerequisites:* GEOG 275 and GEOG 310 or permission of instructor.
- GEOG 413 Remote Sensing — Image Interpretation** 3 cr.
Fundamental principles of remote sensing and image interpretation applications in Geography; the remote sensing process, Earth surface energy/matter interactions, photogrammetry basics, color theory & 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 414 Digital Image Processing and Analysis** 3 cr.
Digital image processing and analysis related to environmental and natural resource management. Satellite data acquisition, data formats and packaging techniques, image processing and analytical techniques, image classification and interpretation, integration of digital image processing applications and modeling with GIS. Two hrs. lecture and 2 hrs. lab. Spring. *Prerequisites:* GEOG 275 and GEOG 413 or permission of instructor.
- GEOG 415 Applied Design in the Mapping Sciences** 3 cr.
Examines maps as means of visual communication, map use (and misuse), cognition, design theory, visual variables, and color theory. Computer based exercises and a final project. Fall. Two hr. lecture, 2 hr. lab. *Credit may not be earned for both GEOG 415 and GEOG 315. Prerequisites:* GEOG 275 and GEOG 310.
- GEOG 417 Geospatial Analysis** 3 cr.
Further exploration of GIS theory and applications of spatial analysis and modeling. Includes spatial modeling, building geodatabases by integrating data from separate sources, scripting languages and techniques, and electronic map serving. Student-led discussions and computer-based lab exercises. Two hrs. lecture and 2 hrs. lab. Spring. *Prerequisite:* GEOG 317 or permission of instructor.
- GEOG 418 Cartometrics** 3 cr.
Examines the map's role as a tool for measuring geo-referenced data including spatial transformations, interpolation and generalization. Computer based projects, selected readings and group discussion. Spring, odd-numbered years. Two hrs. lecture and 2 hrs. lab. *Prerequisites:* GEOG 310 and GEOG 317.
- GEOG 421 Regional Planning** 3 cr.
Contemporary topics in regional planning and development. Group and individual projects and research. Fall. *Prerequisite:* GEOG 325 or permission of instructor.
- GEOG 423 Geography of the Suburbs** 3 cr.
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. Intercession and summer. *Prerequisites:* GEOG 104/114 and 12 credits in GEOG, SOCI, ECON, and/or POSC.
- GEOG 425 Geography of Transportation** 3 cr.
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 metropolitan and regional settlements. Spring, odd-numbered years. *Prerequisite:* GEOG 104/114 or GEOG 110 or junior standing.
- GEOG 427 Geography of Languages and Religions** 3 cr.
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. (GEP Group F).
- GEOG 429 Synoptic Climatology** 3 cr.
Climatology of atmospheric global circulation patterns and associated weather types. Spring of even numbered years. *Prerequisite:* GEOG 405 or permission of instructor.
- GEOG 430 Surface Water Hydrology** 4 cr.
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** 3 cr.
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** 3 cr.
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** 3 cr.
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:* MATH 103 and GEOG 275.

GEOGRAPHY

GEOG 441 Soil Analysis**3 cr.**

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 445 Biogeography**3 cr.**

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**3 cr.**

City planning: needs assessment, land use suitability, policy, and design. Participation in limited scope planning projects. Spring. *Prerequisite:* GEOG 324 or permission of instructor.

GEOG 454 Geography of Tourism**3 cr.**

A review of the geographical distribution of tourism, travel patterns, and tourism 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**3 cr.**

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**3 cr.**

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. Variable. *Prerequisite:* GEOG 103 or permission of instructor.

GEOG 469 Dynamic Climatology**3 cr.**

Dynamics of the global climate system. Radiation, thermodynamics, mechanics, angular momentum. Numerical weather and climate prediction. Dynamics of climate change. Spring of odd numbered years. *Prerequisite:* GEOG 405 or permission of instructor.

GEOG 470 Soil and Water Engineering**4 cr.**

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**3 cr.**

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**3 cr.**

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**3 cr.**

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.

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.

GE0G 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, GE0G 380, and permission of Department Chair.

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 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.

HEED 200 Nutrition 3 cr.
Principles of nutrition. The effect of food habits on family health. Nutritional requirements for different stages of human development. Application to various economic levels and social backgrounds. Every semester.

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. *Prerequisite:* HEED 103.

HEED 208 Health Education For Special Populations 1 cr.
Special understanding necessary to the adaptation of health education to disabilities of individual persons. Fall. *Prerequisite:* HEED 104.

HEED 210 Athletic Taping and Bracing Techniques 1 cr.
The art and science of applying athletic tape and braces in the prevention and treatment of athletic injuries. Fall.

HEED 222 Emergency Medical Techniques in Athl. Training 4 cr.
An introduction to the daily management of the athletic training clinical environment. Fall.

HEED 223 Clinical Experiences in Athletic Training I 1 cr.
An introduction to the daily management of the athletic training clinical environment. Spring.

HEED 230 Assessment Design in Health & PE 3 cr.
Cognitive, affective and psychomotor domain assessments for health and physical education following national and state standards. Follows Bloom's Revised Taxonomy. Fall. *Prerequisite:* HEED 104; health and physical education majors only.

HEED 232 School Health 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:* HEED 104.

HEED 233 School Health 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:* HEED 104.

HEED 234 School Health 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:* HEED 104.

HEED 305 Care and Prevention of Athletic Injuries 3 cr.
Introduction to athletic injury management. Emphasis on prevention and care of muscular skeletal injuries. Spring.

HEED 306 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:* HEED 230.

HEED 318 Orthopedic Assessment I: Upper Extremity 4 cr.
General and specific athletic injury assessment procedures. Emphasis is placed on the upper extremity, head, abdomen, throat and thorax assessment. 3 hrs. lecture, 2 hrs. lab. Spring. *Prerequisite:* HEED 206.

HEED 319 Orthopedic Assessment II: Lower Extremity 4 cr.
General and specific athletic injury assessment procedures Emphasis is placed on the spine, pelvis, and lower extremity including gait and postural analysis. 3 hrs. lecture, 2 hrs. lab. Fall. *Prerequisite:* HEED 318.

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 1 cr.
The in-depth study of both the theoretical and practical clinical aspects of athletic training. Fall.

HEED 323 Clinical Experiences in Athletic Training III 1 cr.
The continued in-depth study of both the theoretical and practical clinical aspects of athletic training. Spring.

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 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 PHEC 497 for Teacher Education.* *Prerequisites:* HEED 416 and admission to PHASE II.

HEED 408 Therapeutic Modalities in Sports Medicine 4 cr.
The study of both the theoretical basis and practical usage of various therapeutic modalities. Designed for individuals who routinely treat sports-related injuries. 3 hrs. lecture, 2 hrs. lab. Spring. *Prerequisite:* HEED 318.

HEED 413 Rehabilitation Techniques in Sport 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. Credit cannot be earned for both HEED 413 and PHEC 413. 3 hrs. lecture, 2 hrs. lab. Fall. *Prerequisite:* HEED 319.

HEED 416 Curriculum Design in Health Education 3 cr.
Health Education curriculum development, implementation, and evaluation; implementation of program strategies from evaluation results. Fall. *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. Spring.

HEALTH PROMOTION • HISTORY

HEED 422 Clinical Experiences in Athletic Training IV 1 cr.

Summary of NATA competencies required for certification examination. Emphasis is placed on clinical decision making skills. Fall. *Prerequisites:* HEED 322 and HEED 323.

HEED 423 Clinical Experiences in Athletic Training V 1 cr.

Summary of NATA competencies required for certification examination. Emphasis is placed on clinical managerial skills. Spring. *Prerequisites:* HEED 322 and HEED 323.

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 in Athletic Training 3 cr.

Finalization of the theoretical and clinical application of lower body injury assessment and rehabilitation techniques used by athletic trainers, athletic nutrition, pharmacology and preparation for BOC exam. Spring.

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.

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.

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 F.

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. Not open to students who have credit for former HIST 452. 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. Credit cannot be earned for both HIST 453 and HIST 353. Variable.
- HIST 360 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. Credit cannot be earned for both HIST 460 and HIST 360. 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. Credit cannot be earned for both HIST 476 and 376. 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 Kievan 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. Credit cannot be earned for both HIST 309 and HIST 409. 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. Credit cannot be earned for both HIST 318 and HIST 418. 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. Credit cannot be earned for both HIST 319 and HIST 419. 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. Credit cannot be earned for both HIST 320 and HIST 420. 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. *Every third semester beginning spring 2010.*
- HIST 445 History of Maryland** 3 cr.
Survey of Maryland history from its founding until the present. Credit cannot be earned for both HIST 345 and HIST 445. 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 diplomatic 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.
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 frontier, 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. Credit cannot be earned for both HIST 380 and HIST 480. 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 of HIST 489 and HIST 390 if topics are substantially different.

HIST 490 Special Topics in History of the Americas**3 cr.**

A detailed study of a limited topic, problem, or period of North or South American history. Topics vary from semester to semester. Variable. Repeatable for maximum of 6 credits if topics are substantially different.

HIST 492 Internship Seminar**3 cr.**

Academic component of internship. Requires co-registration in 495. Graded A-F. 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 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 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.

Humanities

HUMA 309 Zen Practice**1-2 cr.**

A "lab" experience supplementing in-class theoretical learning with practical and direct experience of zazen meditation under instructor guidance (1 cr.). Optional second credit earned through workshop attendance at the Rochester Zen Center. Variable. *Requires concurrent enrollment in ENGL 309.*

HUMA 444 Metaphysics and Modern Physics**3 cr.**

Interdisciplinary study of 20th-century physics and ancient Asian metaphysics. Concepts of reality proposed by Newton, Einstein, Heisenberg, and other physicists; and by Lao-Tzu, Buddha, Hui Neng, and other ancient philosophers. Also offered as PHSC 444. Spring.

Information Technology

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. *Prerequisites: 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, tools, 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.

Develop knowledge of E-commerce concepts and terminology. E-marketplaces, E-commerce economic impacts, market research, company-centric B2B, E-supply chain, corporate portals, E-government, E-learning. Introduction to implementing an e-commerce system. Variable. *Prerequisite: Grade of C or better in ITEC 315.*

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.*

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.*

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 GE0G 335. *Prerequisites: GE0G 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 C.*

IDIS 191 Freshman Project**3 cr.**

Continuation of fall semester learning communities for freshman students. Real-world or laboratory application of theoretical constructs and interdisciplinary perspectives acquired by students enrolled in learning communities 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 instructors.*

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. GEP Group E.*

IDIS 495 Interdisciplinary Experience**1-12 cr.**

Supervised field experience. Repeatable for up to 12 credits. Every semester. *Prerequisite: Permission of LBST program coordinator.*

Honors Program

Repetition of Honors Program courses requires the permission of the Honors Program Director.

IDIS 151 Honors: First-Year Colloquium**3 cr.**

Fostering a Sense of Understanding through exploration of a current issue or other unifying principle through interdisciplinary study, discussion, and activities. Activities emphasize student discussions of assigned readings, oral, and written reports more challenging than those in other first-year colloquium classes. Readings emphasize primary rather than secondary sources. Assignments emphasize active learning experiences. Every semester. Topics vary. You cannot receive credit for both IDIS 151 and IDIS 150. Repeatable for maximum of 6 credits if topics are substantially different. *Prerequisites: Participation in the Honors Program. To be completed within first 45 hours or soon after transfer if applicable. 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. 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 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 Business**INTR 330 International Business****3 cr.**

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**3 cr.**

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**3 cr.**

Serves as the culmination of studies in the global business concentration in the business administration major by providing students an in-depth immersion into all aspects of global business and global management theory and practice. Spring. *Prerequisites: INTR 330 and senior standing. Capstone.*

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 P/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. Requires extensive field experience. Variable. *Prerequisites: CMST 102, LEAD 101, LEAD 201, and 6 credits from approved elective list. Students who have previously earned credit for LEAD 250 cannot earn credit for LEAD 401.*

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.

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**1-2 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 entrepreneurially-minded FSU students. Each topic is approached from a pragmatic perspective. Class discussions and assignments are based upon live experiences. The lecture, the readings, and the 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.*

MGMT 452 Staffing and Development**3 cr.**

The role of human resource professionals at every stage of the employment process from pre-hiring to post-firing, 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 361, 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**3 cr.**

A detailed study of a limited topic, problem, or period. Topics vary from semester to semester. Repeatable for maximum of 6 credits if topics are substantially different. Variable. *Prerequisites: 90 credits and 18 hrs. of business administration course work.*

MARKETING • MASS COMMUNICATION

MGMT 494 Internship in Management**3 or 6 cr.**

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 maximum of 6 credits. Every semester and summer. *Prerequisites: Junior or senior standing; department chair's approval.*

MGMT 499 Independent Study in Management**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 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 marketing and the fundamentals involved in the marketing process. Functions, institutions, and channels of distribution of goods and services from producer to consumer; the components of marketing strategy and their interrelationships. 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.**

Overview of advertising and sales promotion; their relation to social and economic systems. Processes for developing and implementing effective advertising programs, including promotional planning, media selection, and layout. 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 & Sales Management**3 cr.**

Fundamentals of professional selling including the selling process from preapproach to post-sale service. Emphasis both on the selling process and managing sales personnel, sales territories, and sales strategies. Fall. *Prerequisite: a grade of C or better in MKTG 361.*

MKTG 366 Consumer Behavior**3 cr.**

Concepts and theories of consumer behavior; psychological and sociological influences on consumers. The relation of these theories to marketing strategies; consumer behavior in the segmentation of markets. Every semester. *Prerequisite: a grade of C or better in MKTG 361.*

MKTG 460 International Marketing**3 cr.**

Study of the marketing function from an international perspective. Discussion of the cultural, legal, political and economic aspects of international marketing, in addition to international marketing policies and strategies. Comparison of markets and marketing techniques in the U.S. and foreign markets. Problems and techniques of export marketing are highlighted. Spring. *Prerequisite: a grade of C or better in MKTG 361.*

MKTG 462 Marketing Research**3 cr.**

The role of marketing research in the formulation and solution of marketing problems and the development of the student's basic skills in conducting and evaluating marketing research products. Special emphasis on problem formulation, research design, alternative methods of data collection (including data collection instruments, sampling and field operations) and data analysis techniques. Every semester. *Prerequisite: a grade of C or better in MKTG 361 and MATH 109/110/380.*

MKTG 465 Marketing Strategies**3 cr.**

Market analysis, product planning, channels of distribution, pricing and promotional decision making; analysis of environmental constraints and market opportunities. Every semester. *Prerequisites: a grade of C or better in MKTG 361 and MKTG 366.*

MKTG 466 Services Marketing**3 cr.**

Discussion of marketing theory and methods in the management of services. Elements of the service marketing mix are emphasized. 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; investigation of marketing strategies and business practices necessary for success in e-commerce; and study of the phenomena, issues and processes that make conducting business on the Internet unique. 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 existing or new consumer products. Structure encompasses all aspects of a contemporary marketing plan from situational analysis through 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 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 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.**

Entry-level work experience in applying mass communication theories at radio station WFWM. Repeatable for 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 news-cast. Repeatable for 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.

MCOM 150 Introduction to Radio**3 cr.**

Study of radio in the United States, both AM and FM, with presentations on the basic electronics, operation, regulation, staffing and selling. Variable.

MCOM 213 Audio Production**3 cr.**

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.

- MCOM 246 Intro to Mass Communication Research Methods** 3 cr.
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.*
- MCOM 250 Announcing and Performance** 3 cr.
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.
- MCOM 287 Introduction to Video Production** 3 cr.
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.
- MCOM 301 Multi-Media Workshop** 3 cr.
Techniques in creating multimedia content. Digital audio/video editing techniques and streaming media techniques and practices considered. Variable. *Prerequisite: MCOM 287 and MCOM 213.*
- MCOM 313 Advanced Audio Production** 3 cr.
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.*
- MCOM 316 Electronic Media Management** 3 cr.
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.*
- MCOM 325 Seminar in Public Relations** 3 cr.
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).*
- MCOM 326 Writing for Electronic Media** 3 cr.
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.*
- MCOM 336 Broadcast-Cable Programming** 3 cr.
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.*
- MCOM 346 Mass Communication Theory** 3 cr.
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.*
- MCOM 350 Beginning Television Screenwriting** 3 cr.
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.
- MCOM 387 Multi-Camera Studio Production** 3 cr.
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.*
- MCOM 447 Telecommunications Law** 3 cr.
Survey of both constitutional and administrative laws, regulations and public policies that govern the United States' telecommunication systems. Every semester. *Prerequisites: MCOM 105, 60 hours and good academic standing, or permission of instructor.*
- MCOM 456 Creative Strategies in Advertising and Media Buying** 3 cr.
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.*
- MCOM 465 Music Promotion and Production** 3 cr.
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.*
- MCOM 485 Electronic Media Aesthetics and Criticism** 3 cr.
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.*
- MCOM 486 Current Issues and New Technologies in Mass Comm.** 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.*
- MCOM 487 Advanced Video Production** 3 cr.
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.*
- MCOM 488 Multi-Camera Field Production** 3 cr.
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.*
- MCOM 490 Special Topics in Mass Communication** 3 cr.
Research or applied experience on an announced selected topic. Repeatable if topics are substantially different. Variable. *Prerequisite: permission of instructor.*
- MCOM 492 Internship Project** 3 cr.
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.*
- MCOM 494 Mass Communication Internship** 1 to 3 cr.
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.*
- MCOM 495 Extended Internship** 3, 6, 9 or 12 cr.
Supervised field experience for Mass Communication majors. Participation in the communication operations of a commercial, governmental or educational organization. Graded P/F. 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. *Corequisite: MCOM 492. 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.*

MATHEMATICS

MCOM 498 Senior Seminar in Mass Communication 3 cr.
An integrated experience that requires students to use their accumulated skills and knowledge. Integration of previous course material and reflections on one's own experiences in the field is expected. Priority given to students who need the course to graduate in the semester registered. Every semester. *Prerequisites:* 75 credits, 2.0 overall GPA and approved focus or minor or permission of instructor. Capstone.

MCOM 499 Directed Study 1 to 6 cr.
Intensive study through faculty-directed projects or papers. Hours arranged. Every semester. Repeatable for maximum of 9 credits. No more than 6 hours can be counted toward one professional focus. *Prerequisite:* permission of Department Chair.

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. Every semester. Does not fulfill Core Skill 3, nor may the credits be used to fulfill the 120-hr. minimum toward graduation. Graded A, B, and F. *Prerequisite:* A passing score on the Mathematics Placement Test administered by the University or DVMT 095.

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. *MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS. MAY BE USED TO FULFILL CORE SKILL 3.*

MATH 106 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 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 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 200 An Introduction to Discrete Mathematics 3 cr.
A study of discrete mathematical structures. Topics include elementary set theory, functions, relations, recursion, logic, methods of proof, graph theory, combinatorics, probability. Variable. *MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.*

MATH 206 Problem Solving for Elementary Teachers I 3 cr.
Heuristics of problem solving, set theory, functions, estimation, measurement, numeration 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 or MATH 226. 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 or MATH 227. *MAY NOT BE USED TO SATISFY THE REQUIREMENTS FOR A MAJOR OR MINOR IN MATHEMATICS.*

MATH 236 Calculus I 4 cr.
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.*

MATH 237 Calculus II 4 cr.
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.

- MATH 238 Calculus III** 4 cr.
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.*
- MATH 340 Fundamental Concepts of Geometry** 3 cr.
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.*
- MATH 350 Linear Algebra I** 3 cr.
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.*
- MATH 380 Introduction to Probability and Statistics** 3 cr.
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.*
- MATH 415 Foundations of Mathematics** 3 cr.
Theory of sets, mathematical logic, methods of proof in mathematics, the real number system, selected topics. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 237.*
- MATH 425 Introduction to Real Analysis** 3 cr.
Topology of real numbers; sequences, cluster points, continuity, theory of differentiation and integration; elements of measure theory; infinite series. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 238.*
- MATH 426 Introduction to Complex Analysis** 3 cr.
Analytic functions, Cauchy's Theorem, Taylor and Laurent series, meromorphic functions, residue theory, conformal mapping. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 238.*
- MATH 432 Differential Equations** 3 cr.
Solution of ordinary differential equations, Laplace transforms, numerical methods using mathematical software, solution by series. Every semester. *Prerequisite: MATH 237.*
- MATH 435 Numerical Analysis** 3 cr.
Elements of numerical methods frequently used in applied mathematics and the natural sciences; algorithms suitable for use in computers. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 237 and COSC 240 or permission of the instructor.*
- MATH 436 (also 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, odd-numbered years. *Prerequisite: MATH 432 and PHYS 216 or PHYS 262, or permission of instructor.*
- MATH 437 Combinatorics and Graph Theory** 3 cr.
General enumeration techniques, elements of graph theory, matrix representations of graphs and applications of graph theory. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 237.*
- MATH 440 Modern College Geometry** 3 cr.
An introductory synthetic study of geometry: finite, absolute, affine, Euclidean, hyperbolic, elliptic and projective geometries. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 237.*
- MATH 451 Modern Higher Algebra** 3 cr.
Basic study of the structure of groups and rings: isomorphism theorems, special kinds of rings, additional topics. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 237.*
- MATH 452 Linear Algebra II** 3 cr.
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. See department secretary for up-to-date schedule. *Prerequisite: MATH 238 and MATH 350.*

- MATH 460 Introductory Topology** 3 cr.
The topology of Euclidean space, homeomorphisms and quotient maps, connectedness, compactness, topological surfaces, simplicial complexes and surfaces, the Euler characteristic. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 238.*
- MATH 461 History of Mathematics** 3 cr.
Historical development of mathematics and its concepts. Contributions of individuals and societies to the development of mathematics. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 237.*
- MATH 465 Theory of Numbers** 3 cr.
Divisibility, Diophantine equations, congruences, sums of squares, additional topics. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 237.*
- MATH 470 Mathematical Models and Applications** 3 cr.
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.*
- MATH 480 Probability and Statistics** 3 cr.
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. *Prerequisite: MATH 238, MATH 380, or permission of instructor.*
- MATH 481 Applied Regression Analysis** 3 cr.
A matrix approach to linear and multiple regression using the latest statistical packages. Selecting the best regression equation, model building and linear model approach to ANOVA and ANCOVA. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 380 (or MATH 109/209).*
- MATH 482 Applied Nonparametric Statistics** 3 cr.
Sign tests; tests based on ranking methods, including correlation and regression; nonparametric confidence intervals and point estimates; chi-square tests; and efficiency estimates. Variable. See department secretary for up-to-date schedule. *Prerequisite: MATH 109/209 or MATH 110/110 or MATH 380.*
- MATH 490 Selected Topics in Mathematics** 3 cr.
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.*
- MATH 491 Seminar in Mathematics** 3 cr.
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.*
- MATH 492 Internship Seminar** 3 cr.
Academic component of internship. Requires co-registration in MATH 495. Graded A-F.
- MATH 495 Internship in Mathematics** 6 or 12 cr.
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.*
- MATH 499 Individual Study in Mathematics** 1-3 cr.
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.

Music

Music Theory

MUSC 100 Introduction to Music Theory 2 cr.
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.

MUSC 101 Music Fundamentals 2 cr.
The rudiments of music designed for non-music majors. Every semester.

MUSC 102 Theory I 3 cr.
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 3 cr.
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 1 cr.
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 1 cr.
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 3 cr.
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 3 cr.
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 instructor.*

MUSC 206 Aural Skills III 1 cr.
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 1 cr.
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 3 cr.
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 2 cr.
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 2 cr.
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 3 cr.
Analysis of musical structure and style in Western civilization. Variable. *Prerequisite: MUSC 205.*

MUSC 407 Counterpoint 2 cr.
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 110 Introduction to World Music 3 cr.
Introduction to the style periods and genres of Western Classical music through the significant literature of the major male, female and minority composers; survey of selected non-Western music cultures; folk, gospel and jazz music. Every semester. *GEP Group A.*

MUSC 117 Music of Africa, Asia and the Americas 3 cr.
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 Women in Music 3 cr.
An examination of popular and art music by and from the perspective of women. Topics include women as performers and composers, the depiction of women in music, musical criticism and cultural values that have affected women's participation in musical life. Variable. *GEP Group F.*

MUSC 308 Music History I: Music of the Medieval, Renaissance and Baroque Periods 3 cr.
A survey of musical style from Gregorian chant through the Baroque period. Analysis, listening, discussion set in a cultural context. Fall. *Not recommended for freshmen.*

MUSC 309 Music History II: Music of the Classical, Romantic and Modern Periods 3 cr.
A survey of musical style from the Classical through the Modern periods. Analysis, listening, discussion set in a cultural context. Spring. *Not recommended for freshmen.*

MUSC 311 Jazz History 3 cr.
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 346 The Opera 3 cr.
Representative operas from 1600 to the present. Variable. *Prerequisite: permission of instructor.*

MUSC 493 Senior Research 1 cr.
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 3 cr.

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.

MUSA 213 Piano Pedagogy 2 cr.

A methods and materials course for those preparing for piano studio teaching. *Prerequisite: permission of instructor.*

MUSC 252 Music Field Experience .5 cr.

Observation of P-12 music classrooms and aiding teachers at the elementary level and secondary level as instructed. Every spring. *Prerequisites: MUSC 125 and fingerprinting on file with the Department of Education Professions.*

MUSC 310 Basic Principles of Conducting I - Choral 3 cr.

Introduction to the basics elements of choral and instrumental conducting. Involves 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 on 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 Senior Project Paper 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 .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 208 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.*

NURSING

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 287 Sophomore Evaluation**0 cr.**

Sophomore review that demonstrates musical performance and academic ability to continue in the major. Perform two or three contrasting works for the music faculty. Required of all music majors. Repeatable 1 time. Graded P/F. 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 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. Pass/Fail 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.*

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 Concert Jazz Ensemble**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 of campus. Meets 150 minutes per week. Every semester. *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. *Prerequisite: Admission to the RN-BSN program or HEED 200 and permission of the Program Coordinator.*

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 nursing practice, including formulating a clinical problem, identifying sources of evidence, using clinical guidelines, disseminating evidence, and motivating for change based on scientific evidence. Fall. *Prerequisites: Admission to the RN to BSN program or MATH 109/209 and permission of Program Coordinator.*

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 safe, quality care; nursing diversity in roles, organizations, and culture; and finally professional identity and image. Spring. *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. Spring. *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. Fall. *Prerequisites: 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 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 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 Aesthetics 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 306 Philosophy of Science 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. GEP Group F.*

PHYSICAL EDUCATION

- 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 and the Search for Truth** 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 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 451 Seminar in 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. Credit cannot be earned for both PHIL 451 and PHIL 407. Variable. *Prerequisite: 15 cr. in philosophy or permission of instructor. Capstone.*
- 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

One credit activity courses meet twice a week for a semester or four periods per week for a quarter.

- PHEC 103 Foundations of Physical Education** 3 cr.
Theories and practices guiding instructional planning in physical education. Foundational knowledge for TOPE program. *Prerequisite: HPE teacher education majors only.*
- PHEC 109 Aerobic Fitness** 2 cr.
Leadership and technical skills for safe and effective group exercise programs. Every semester.
- 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: PHEC 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: PHEC 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: PHEC 103 or PHEC 170.*
- PHEC 167 Teaching of Physical Education Through Educational Gymnastics** 1 cr.
Fundamental skills of educational gymnastics. Every semester. *Prerequisite: PHEC 103 or PHEC 170.*

PHEC 168 Teaching of Physical Education Through Dance Forms	1 cr.	PHEC 362 Theory of Baseball	3 cr.
Fundamental skills of dance. Every semester. <i>Prerequisite: PHEC 103 or PHEC 170.</i>		Concepts, advanced strategies, and organization and administration of a baseball program. Fall, odd-numbered years.	
PHEC 169 Teaching of Physical Education Through Health Fitness	1 cr.	PHEC 364 Theory of Basketball	3 cr.
Fundamental skills of health fitness. Every semester. <i>Prerequisite: PHEC 103 or PHEC 170.</i>		Concepts, advanced strategies, and organization and administration of a basketball program. Fall, even-numbered years.	
PHEC 170 Physical Education Teaching Lab	1 cr.	PHEC 365 Theory of Volleyball	3 cr.
Lesson plan components for physical education. Foundational knowledge for TOPE program. <i>Prerequisite: Transfer students entering with credit for PHEC 103 or permission of instructor only.</i>		Concepts, advanced strategies, and organization and administration of a volleyball program. Spring, even-numbered years.	
PHEC 175 Foundations of Resistance Training	1 cr.	PHEC 366 Theory of Soccer	3 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.		Concepts, advanced strategies, and organization and administration of a soccer program. Spring, even-numbered years.	
PHEC 230 Golf	1 cr.	PHEC 369 Theory of Softball	3 cr.
Fundamental skills of golf. Spring, odd-numbered years.		Concepts, advanced strategy, and organization and administration of a softball program. Fall, even-numbered years.	
PHEC 250 Beginning Swimming	1 cr.	PHEC 401 Physiology of Exercise	3 cr.
Basic swimming skills and water safety. Open to beginning swimmers only. Fall.		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. <i>Prerequisite: BIOL 322.</i>	
PHEC 251 Intermediate Swimming	1 cr.	PHEC 402 Adapted Physical Activities	4 cr.
Swimming strokes and aquatic skills required for qualification as a good swimmer. Spring.		Adapting physical activities to individual disabilities. Three hrs. lecture, 3 hrs. lab. <i>Prerequisite: PHEC 416.</i>	
PHEC 301 Applied Biomechanics	3 cr.	PHEC 405 Psycho-Social Foundations of Sport	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. <i>Prerequisite: BIOL 211.</i>		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 303 Biomechanics for Exercise and Sport Science	3 cr.	PHEC 406 Applied Physiology	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. <i>Prerequisite: BIOL 321.</i>		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. <i>Prerequisite: BIOL 211.</i>	
PHEC 309 Health and Physical Education for the Elementary Classroom Teacher	3 cr.	PHEC 407 Motor Learning and Performance	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. <i>Prerequisite: EDUC 100.</i>		Motor skill acquisition concepts. Nature of the learner, guidance, results, motivation, practice, transfer, retention, and psychological implications. Every semester.	
PHEC 310 Organization & Administration of Health and Physical Education	3 cr.	PHEC 408 Movement Experiences for Children	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. <i>Prerequisite: Health and Physical Education Majors only.</i>		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. <i>Prerequisites: Admission to Phase II teacher education; PHEC 416.</i>	
PHEC 341 Psychology of Physical Activity	3 cr.	PHEC 410 Advanced Strength Training	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. <i>Prerequisite: Psychology 150.</i>		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. <i>Prerequisites: PHEC 175 and PHEC 303.</i>	
PHEC 350 Red Cross Lifeguarding	1 cr.	PHEC 411 Evaluation and Prescription in Fitness	3 cr.
Red Cross lifeguarding techniques. Three periods per week. Every semester. <i>Prerequisite: ability to swim a quarter mile.</i>		In-depth examination of evaluation of and components applicable to the development of exercise programs. Every semester. <i>Prerequisite: PHEC 401.</i>	
PHEC 351 Water Safety Instruction	2 cr.	PHEC 412 Principles of Coaching	3 cr.
Course is designed to certify instructor candidates to teach water safety and swimming courses. Three periods per week. Every semester. <i>Prerequisite: Life Saving certificate.</i>		Introduces students to learning about coaching education and the responsibilities of the coach. Spring, odd-numbered years.	
PHEC 360 Theory of Track and Field	3 cr.	PHEC 413 Rehabilitation Techniques in Sport Medicine	3 cr.
Concepts, advanced strategies, and organization and administration of a track and field program. Fall, odd-numbered years.		Various aspects of the rehabilitation process for the physically active or athletic population. Goals, techniques, evaluation methods and specific rehabilitation programs covered. Fall. <i>Prerequisite: HEED 319.</i>	
PHEC 361 Theory of Football	3 cr.	PHEC 415 The Black Athlete in American Society	3 cr.
Concepts, advanced strategies, and organization and administration of a football program. Spring, odd-numbered years.		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.	

PHYSICS

- PHEC 416 Curriculum Design in Physical Education** 3 cr.
Physical education curriculum design, selection, and development. Instructional planning based on developmentally appropriate activities, learning styles, safety issues, diversity considerations and societal implications. Teacher education. Spring. *Prerequisite: Major in Health and Physical Education; junior standing.*
- PHEC 418 Physical Education in the Secondary Schools** 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 PHEC 497 in Teacher Education. Every semester. *Prerequisites: Admission to Phase II teacher education; PHEC 416.*
- 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 & 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 & 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. *Prerequisite: Completion of 90 credit hours or more with a C or better in the major and senior status. Exercise and Sport Science Capstone.*
- PHEC 498 Readings in Health & Physical Education** 1 to 4 cr.
Intensive reading on selected topic. Every semester. Repeatable for maximum of 4 credits if topics are substantially different. *Prerequisite: major or minor in HPE or Exercise and Sport Science and permission of instructor.*
- PHEC 499 Individual Problems in Health & 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.*

PHSC 444 Metaphysics and Modern Physics**3 cr.**

Interdisciplinary study of 20th-century physics and ancient Asian metaphysics. Concepts of reality proposed by Newton, Einstein, Heisenberg, and other physicists; and by Lao-Tzu, Buddha, Hui Neng, and other ancient philosophers. Lecture. Also offered as HUMA 444. Spring.

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, electrodynamics, magnetostatics, electromagnetic induction and Maxwell's equations. Six hours of integrated lecture/lab/discussion per week. Spring. *Prerequisite: PHYS 261. Corequisite: MATH 236.*

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. *Corequisite: MATH 238. 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.**

Development of particle and rigid body mechanics from Newton's Laws using the notation and methods of vector calculus. Particle motion, central forces, conservation principles, rigid body dynamics, and introduction to Lagrange's equations. Spring. *Prerequisite: PHYS 263 and junior standing. Corequisite: MATH 432.*

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.**

Classical theory of electricity and magnetism using the techniques of vector calculus. Electrostatics, magnetostatics, polarized media, currents and their associated fields, and Maxwell's equations. Fall. *Prerequisite: PHYS 263 and junior standing. Corequisite: MATH 432.*

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 mechanics, 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 Schrodinger 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.*

POLITICAL SCIENCE

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. Also offered as MATH 436. 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 323 Public Administration 3 cr.

Exploration of the administrative functions of US government; focus on national government; comparisons with private sector; emphasis on issues of efficiency. Every semester. Not open to students who have credit for former POSC 351. *Prerequisite:* POSC 110/112 or permission of instructor.

POSC 324 Criminal Justice Systems 3 cr.

Structure, function, and social impact of criminal legal systems; "law" and "justice." Participants in the legal process: police, prosecuting and defense attorneys, judges, jurors, correctional officials, litigants, the press. State, national, and international comparisons; proposals for reform. Every semester. Not open to students who have credit for former POSC 354. *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 113/114 or POSC 131; POSC 131 preferred.

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 113/114 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.

- 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 recent 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.

PSYCHOLOGY

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.

POSC 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.

POSC 489 Law and Society Capstone**1 cr.**

Preparation of a portfolio of student work demonstrating research and analytical skills acquired in the Law and Society program; development of written work combining basic ideas from previously conducted research papers; development of oral presentation skills. *Prerequisites:* at least 75 credits earned; at least five 300 and/or 400 level courses in the Law and Society program.

POSC 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.

POSC 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.

POSC 492 Internship Seminar**3 or 6 cr.**

Academic component of internship; requires co-registration in POSC 495. Full-time interns register for 6 credits 492 (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.

POSC 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.

POSC 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. *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. Spring and Intersession. *Prerequisite: PSYC 150/151 with a "C" or better.*
- PSYC 314 Theories of Personality** 3 cr.
General survey of the principal theories and research concerning the nature and development of personality. Fall. Not open to students with credit for former PSYC 414. *Prerequisites: PSYC 150/151 with a "C" or better. Recommend PSYC 208/210/212.*
- 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 work place. 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** 2 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 a "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.*

RECREATION AND PARKS MANAGEMENT

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. Fall. *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. Spring. *Prerequisites:* PSYC 150/151 with a "C" or better and at least 75 credits. Capstone.

PSYC 485 Behavioral Approaches to Human Problems 3 cr.

Therapeutic application of learning principles to problems in the behavior of children and adults: normal childhood development; education and habit disorders; depression, severely disordered behavior, anxiety; and sexual problems in adults. Behavioral assessment, behavior change programs, and evaluation of such programs. Individual research and projects required. 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 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 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 330 Outdoor Education 3 cr.

Development of outdoor education in the school program. Integration of academic disciplines; conservation of the environment. Every semester.

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 381 Facilitation Skills and Techniques in Recreation and Parks 3 cr.

Development of facilitation skills including interpersonal skills and techniques to become an effective leader and manager in recreation and parks. Variable.

- 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.
- RECR 393 History and Philosophy of Outdoor Recreation** 3 cr.
Philosophical basis of the historical, ethical, moral, social, and aesthetic issues surrounding outdoor recreation. Fall.
- RECR 394 Environmental Interpretation** 3 cr.
Explores principles and practices of environmental interpretation of outdoor recreation resources. Course content is designed to facilitate understanding of philosophical foundations of interpretation and applied methods for leading nature hikes, children's programs, and developing interpretive trails. Program promotion, the development of displays and brochures, and other relevant topics. Fall.
- RECR 421 Client Assessment and Evaluation in Therapeutic Recreation** 3 cr.
Individual intervention treatment plans, including the assessment, intervention techniques and protocols for treatment plans, and evaluation of the effectiveness of the treatment plan for community and clinical settings. Variable.
- RECR 422 Administration and Supervision of Therapeutic Recreation** 3 cr.
A comprehensive overview of all aspects of administration and the therapeutic recreation profession to include therapeutic recreation program design, safety, risk management, human resources, training, family interaction, use of community resources, agency accreditation, professional certification and organizational involvement. Variable.
- RECR 423 Advanced Facilitation Methods for Clinical and Community Setting in Therapeutic Recreation** 3 cr.
An overview of concepts and interaction techniques used in the provision of goal-oriented therapeutic recreation services. Included are counseling techniques, leadership and cultural competency instructional techniques appropriate for use in treatment, leisure education and recreation participation. Fall.
- RECR 440 Organization and Administration of Recreation and Parks** 3 cr.
Management and administration of recreation and parks agencies, including concepts and principles of management, supervisory leadership, human resource management, and operations and maintenance. *Prerequisite: 75 credits or permission of instructor.*
- RECR 443 Issues and Risk Management in Recreation and Parks** 3 cr.
Current issues and risk management, including legal liability in the recreation and parks field. Every semester. *Prerequisite: 75 credits or permission of instructor.*
- RECR 448 Principles of Ecotourism** 3 cr.
Explores the foundational principles, organization and management of ecotourism. Various nature-based tourism and ecotourism settings will be analyzed to compare operations, facilities, personnel and programming. Discussion of the management of ecotourism focuses on business planning, site development, operator responsibilities and best practices. Spring.
- RECR 480 Field Experience in Recreation and Parks** 1-6 cr.
Practical experience in recreation and parks management. Site of study may vary. Repeatable for maximum of 6 credits if placement sites are different. Every semester. *Prerequisite: Permission of instructor.*
- RECR 490 Special Topics in Recreation and Parks** 1-6 cr.
Unique or distinctive study such as clinics, workshops or course work dealing with a current topic related to recreation and parks management. Arranged as needed. Repeatable for maximum of 6 credits if topics are substantially different.
- RECR 491 Practicum and Professional Seminar** 3 cr.
Provides students with professional experiences in several different settings and prepares students for their internship experience. Provides employment search skills, interview techniques and presentation skills necessary for a successful employment search. Normally completed the semester prior to the internship, RECR 492/495. Every semester. *Prerequisites: RECR 382, overall GPA of 2.0 and 90 credits or permission of instructor.*
- RECR 492 Internship Project** 3 cr.
Academic component of internship. Register concurrently with RECR 495. Every semester. *Prerequisites: RECR 491, junior or senior status, completion of core courses in major or permission of the instructor. Capstone.*
- RECR 495 Internship in Recreation** 9-12 cr.
Guided work experience directly related to student's academic program. Normally, students may not take additional course work and should register concurrently with RECR 492. Graded P/F. Not open to students who have received credit for former course, PHEC 495. Every semester. *Prerequisites: junior or senior status, completion of core courses in major or permission of the instructor.*
- RECR 497 Out-of-Class Requirements** 0 cr.
Students are required to attend one state, regional or national conference during their junior or senior year, to have a current certification in CPR and first aid and to complete a professional portfolio and review of the portfolio. Consult the Guide for Completion of Out-of-Class Requirements in Recreation. Graded NR/P. Every semester.
- RECR 499 Individual Study in Recreation and Parks** 1-6 cr.
Individual research performed under the supervision of a faculty member. Every semester. Repeatable for maximum of 6 credits if topics are substantially different. Variable. *Prerequisite: permission of the department chair.*
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- ## Social Science
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- SOSC 350 Honors Seminar: Values and Social Change** 3 cr.
The impact of social change on behavior in various cultures, providing a perspective on social change in the United States. *Prerequisites: acceptance into Honors Program; permission of instructor.*
- SOSC 490 Topics in Social Science** 3 cr.
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. Capstone.*
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- ## Social Work
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- SOWK 305 Racial and Cultural Minorities** 3 cr.
Analysis of minority-majority group situations, their causes and consequences. Minorities in the United States. Also offered as SOCI 305. Every semester. Not open to students who have credit for former SOCI/SOWK 220, SOCI 320. *Prerequisite: SOCI 100 or 111. GEP Group F.*
- SOWK 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 SOCI 306. *Prerequisite: SOCI 100 or 111.*

- SOWK 310 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. Also offered as SOCI 310. *Prerequisite:* Completion of GEP math requirement.
- SOWK 311 Basic Research Methods** 3 cr.
Techniques of research design: testing of hypotheses, sampling, data collection, measurement, and elementary statistical analysis. Research project required. Every semester. *Prerequisite or corequisite:* SOCI 310 or SOWK 310. *Prerequisite:* three courses in social work or permission of the department.
- SOWK 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 111. Also offered as SOCI 364.
- 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:* SOCI 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, SOCI 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:* SOCI 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:* SOCI 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; 2.3 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 simpler 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 interdisciplinary in perspective, the course features the way in which African Americans have been active agents in shaping regional culture, politics, and economics. Fall. *Prerequisite:* SOCI 100/111.
- SOCI 310 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 311 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 312 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 322 Social Demography** 3 cr.
A study of the measurement, analysis and explanation of population size, distribution, composition, changes and problems. Variable. *Prerequisite:* SOCI 100 or SOCI 111.
- SOCI 325 Community Analysis** 3 cr.
A critical appraisal of community research, including comparisons of folk, rural, urban, and suburban studies; analysis of local institutional patterns; and specific community factors such as stratification, power, and collective actions. Variable. *Prerequisite:* SOCI 100 or SOCI 111.
- SOCI 326 Sociology of Rural Life** 3 cr.
Characteristics of rural population, social structure, and institutional arrangements and changes. Variable. *Prerequisite:* SOCI 100 or SOCI 111.
- SOCI 328 Sociology of Urban Life** 3 cr.
A study of the city, its role in history, the problems of today, and prospects for the future. Emphasis on urbanism as a way of life. Variable. *Prerequisite:* SOCI 100 or SOCI 111.
- SOCI 332 Collective Behavior** 3 cr.
Analysis of relatively episodic, unstructured, and unconventional forms of social behavior and their consequences. Variable. *Prerequisite:* SOCI 100 or SOCI 111.
- SOCI 334 Gender and Social Life** 3 cr.
The social construction of gender and gender-based inequalities. Focus on contemporary American society but other cultures included. Variable.
- SOCI 340 Criminology** 3 cr.
The social causes and consequences of criminal behavior. Criminal law, the police, courts, and correctional institutions. Every semester. *Prerequisite:* SOCI 200 or SOCI 203.
- SOCI 345 Sociology of the Environment** 3 cr.
Examines the ambivalent relationship between human society and the natural world. Frames contemporary concerns of environmental crisis within an investigation of societies' multifaceted attitudes toward and interactions with the natural landscape, focusing on the social dimensions of the surrounding natural and human-made environments. Spring. *Prerequisite:* SOCI 100/111.
- SOCI 350 Folklore in Appalachia** 3 cr.
The study of human creativity and tradition as a reflection of Appalachian culture, community, and place. Approach is expansive, providing students opportunity to study, document, and value their own cultural traditions and heritage. Variable. *Prerequisite:* Sophomore standing.
- SOCI 362 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.
- 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 366 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 367 Sociology of Medicine** 3 cr.
Organizations, personnel, issues, and problems in medical care. Social influences on health and illness. Variable. Not open to students who have credit for former SOCI 467. *Prerequisite:* SOCI 100 or SOCI 111.
- SOCI 420 Animals in Human Society** 3 cr.
Students will develop an understanding of how sociological perspectives and theories can be used to explore the role of non-human animals in society. Students will study animal/human interaction in several major social institutions – family, health, politics, economy, religion and sports, utilizing a service learning approach. Variable. *Prerequisite:* SOCI 100 or 111.
- SOCI 436 Sociological Aspects of Mass Communication** 3 cr.
The social development of the mass media, societal influences upon them, and their effects upon society. Variable. *Prerequisite:* 9 hrs. of sociology or permission of instructor.
- SOCI 442 Juvenile Delinquency** 3 cr.
The social causes and consequences of juvenile delinquency. Juvenile law, the police, courts, and correctional institutions. Every semester. *Prerequisite:* SOCI 340 or POSC 324 or permission of instructor.
- SOCI 443 The American Correctional System** 3 cr.
The philosophies of punishment and corrections. Analysis of programs and their effectiveness for punishment and rehabilitation of convicted criminals. Every semester. *Prerequisite:* SOCI 340 or POSC 324 or permission of instructor.
- SOCI 450 Classical Sociological Theory** 3 cr.
Survey of sociological thought since Comte and its relevance to modern sociology. Construction of theory by students themselves. Fall. *Prerequisite:* 21 hrs. in Sociology or permission of instructor.
- SOCI 451 Contemporary Sociological Theory** 3 cr.
Survey of contemporary sociological thought since the mid-20th century and its relevance to modern sociology. Construction of theory by students themselves. Spring. *Prerequisite:* SOCI 450; 21 hrs. of Sociology or permission of instructor.
- SOCI 466 Women, Health and Healing** 3 cr.
A feminist examination and analysis of women's experiences with health and illness, including women's roles in health care systems as patients and care providers. Variable. Not open to students who have credit for former SOCI 368. *Prerequisite:* SOCI 100 or SOCI 111 and junior or senior standing or permission of instructor.

SOCI 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:* SOCI 100 or SOCI 111. Also offered as SOWK 468.

SOCI 490 Special Topics**3 cr.**

In-depth analysis of a topic selected by the instructor; may be repeated for up to 6 credits if topics are substantially different. Variable. Repeatable for maximum of 6 credits if topics are substantially different. *Prerequisites:* 6 credits of sociology or permission of the instructor.

SOCI 491 Seminar in Sociology**3 cr.**

Advanced studies in selected topics. Individual study and research for class reports. Formal paper required. Variable. Repeatable for maximum of 6 credits if topics are substantially different. *Prerequisite:* permission of instructor. Capstone.

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) resumé, (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 IDIS 155. Every semester. *GEP Group E.*

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.

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 120 Acting as a Business I**1 cr.**

An introduction to the business of acting with a focus on the fundamental tools of the trade and basic strategies for entering the marketplace as a student theatre practitioner. Fall. *Prerequisite:* THEA 110 and permission of instructor.

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 patterning, 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 playwright 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 220 Acting as a Business II** 1 cr.
Further exploration of the business of acting with a focus on more advanced tools of the trade and additional strategies for entering the marketplace as a student theatre practitioner. Fall. *Prerequisites: THEA 120 and 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.*
- THEA 305 Scene Design** 3 cr.
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** 3 cr.
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** 3 cr.
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 with University Theatre productions working in design shops required. Spring. *Prerequisite: THEA 107 or permission of instructor.*
- THEA 308 Directing** 3 cr.
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** 1 cr.
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** 3 cr.
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** 3 cr.
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** 3 cr.
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 319 Acting Shakespeare** 3 cr.
Acting Shakespeare through selected monologues, text analysis, scansion, rhetorical structure, imagery and investigation of language, stylistic demands and verse. Spring. *Prerequisite: THEA 318 or equivalent.*
- THEA 320 Acting as a Business III** 1 cr.
Advanced exploration of the business of acting with an emphasis on career planning, self-knowledge for the marketplace, examination of various markets and venues and putting into practice interview and audition techniques. Fall. *Prerequisites: THEA 220 and permission of instructor (Acting Capstone).*
- THEA 340 Theatre Management** 3 cr.
Business management of theatre organization; budget and finances, play leasing and promotion, box office. Variable. *Prerequisite: permission of instructor.*
- THEA 350 Playwriting** 3 cr.
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** 3 cr.
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** 3 cr.
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** 2 or 3 cr.
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** 3 cr.
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** 1 cr.
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** 3 cr.
Intensive exploration of foreign and American dialects for performance. Awareness of cultural, physical and vocal rhythms of dialect. Spring. *Prerequisite: THEA 310. Recommended: THEA 210.*
- THEA 425 History of the Theatre I** 3 cr.
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 426 History of the Theatre II** 3 cr.
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 428 Women Through Theatre** 3 cr.
Seminar providing an historical survey of women's participation in theatre, examination of images of women in dramatic literature, and exploration of the contemporary world of women in theatre and related fields. Spring, odd-numbered years.
- THEA 430 Auditioning for Theatre** 3 cr.
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 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:* ENGL 150/250 or THEA 106 or permission of instructor. Also offered as ENGL 431.

THEA 432 World Drama II: Twentieth Century**3 cr.**

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**3 cr.**

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*).

Women's Studies

For descriptions of other Women's Studies courses, refer to the description of the Women's Studies minor and appropriate departmental course listings.

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 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 5/1/2013.

Administration

OFFICE OF THE PRESIDENT

JONATHAN C. GIBRALTER, President. B.A., State University of New York at Binghamton; M.A., New York University; Ph.D., Syracuse University.

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 Ms. Patsy R. Koontz, Luke
 The Honorable Casper R. Taylor, Jr., Cumberland
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Frostburg State University Foundation, Inc.

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Policies

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.

Source	Score or Transcript Required
Advanced Placement Program (CEEB) CLEP	3 or higher Minimum score varies by subject area with no score lower than 50 accepted
International Baccalaureate	4 or higher on each standard/subsidiary or higher level exam
College Courses at High School	If credit is recorded on a college transcript
Departmental Exams from Other Colleges	If credit is recorded on a college transcript
Military Credit	If equivalent to courses in FSU's curriculum
Portfolio Credit from Other Colleges	If credit is recorded on a college transcript
FSU Special Departmental Exams	See following list of tests currently available

Credit-by-Exam Policies

In addition to earning credit at FSU or transferring course credit from other accredited institutions, you may acquire up to 30 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.

CREDIT-BY-EXAM AND OTHER NON-TRADITIONAL LEARNING

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.	Title of Exam	FSU Course Equivalent(s)	Credit Hrs.
Art History	Score of 3 or 4: ART 100 Art Appreciation	3	English Literature & Composition	Score of 3: ENGL 101 Freshman Composition	3
	Score of 5: ART 111 Honors: Art Appreciation	3		Score of 4: ENGL 101 Freshman Composition	3
Biology	BIOL 149 General Biology I	4		ENGL 150 Introduction to Literature	3
	BIOL 150 General Biology II	4		Score of 5: ENGL 111 Honors: Freshman Composition	3
Calculus AB	Score of 3: MATH 120 Pre-Calculus Mathematics	3		ENGL 150 Introduction to Literature	3
	Score of 4 or 5: MATH 236 Calculus I	4	Environmental Science	IDIS 160 Science, Technology and Society	3
Calculus BC	Score of 3: MATH 236 Calculus I	4	European History	HIST 195 History Elective	3
	Score of 4 or 5: MATH 236 Calculus I	4	French Language	FREN 101 Basic Elements of French I	3
	MATH 237 Calculus II	4		FREN 102 Basic Elements of French II	3
Cambridge Capstone Seminar	Score of 3: IDIS 150	3	French Literature	FREN 195 French Elective	3
Cambridge Capstone Research Project	Score of 3: IDIS 195	3	German Language	MDFL 195 Foreign Language Elective	6
Chemistry	Score of 3 or 4: CHEM 201 General Chemistry I	4	Govt. & Politics: Comparative	POSC 131 Introduction to Comparative Politics	3
	Score of 5: CHEM 201 General Chemistry I	4	Govt. & Politics: U.S.	POSC 110 Introduction to American Politics	3
	CHEM 202 General Chemistry II	4	Human Geography	GEOG 104 Human Geography	3
Computer Science A	Score of 3 or 4: COSC 195 Computer Science Elective	3	Internat'l. English Language/APIEL	<i>Not accepted</i>	
	Score of 5: COSC 240 Computer Science I	4	Latin Literature	Evaluated at student request	
Computer Science AB	Score of 3 or 4: COSC 240 Computer Science I	4	Latin: Vergil	Evaluated at student request	
	Score of 5: COSC 240 Computer Science I	4	Music Theory	Score of 3 minimum: MUSC 102 Theory I	3
	COSC 241 Computer Science II	4	Aural Subscore	Score of 3 minimum: MUSC 104 Aural Skills I	1
Economics: Macro	ECON 201 Principles of Economics (Macro)	3	Physics B	Score of 3: PHYS 215 General Physics I	4
Economics: Micro	ECON 202 Principles of Economics (Micro)	3		Score of 4 or 5: PHYS 215 General Physics I	4
English Language & Composition	Score of 3 or 4: ENGL 101 Freshman Composition			PHYS 216 General Physics II	4
	Score of 5: ENGL 111 Honors: Freshman Composition	3	Physics C: Electricity & Magnetism	PHYS 262 Principles of Physics II: Electricity and Magnetism	4
			Physics C: Mechanics	PHYS 261 Principles of Physics I: Mechanics	4
			Psychology	PSYC 150 General Psychology	3
			Spanish Language	SPAN 101 Basic Elements of Spanish I	3
				SPAN 102 Basic Elements of Spanish II	3
			Spanish Literature	SPAN 195 Spanish Elective	3

Title of Exam	FSU Course Equivalent(s)	Credit Hrs.
Statistics	MATH 209 Elements of Appl. Prob. & Statistics	3
Studio Art: Drawing	ART 212 Drawing	3
Studio Art: 2D Design	ART 104 Two-Dimensional Design	3

Title of Exam	FSU Course Equivalent(s)	Credit Hrs.
Studio Art: 3D Design	ART 105 Three-Dimensional Design	3
U.S. History	HIST 103 History of the United States HIST 104 History of the United States	3 3
World History	HIST 114 World History	3

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.

Title of Exam	FSU Course Equivalent(s)	Credit Hrs. Awarded
Language A1	<i>Score of 4 or 5 (Standard):</i> ENGL 101 Freshman Composition	3
	<i>Score of 6 or 7 (Standard):</i> ENGL 101 Freshman Composition	3
	ENGL 150 Introduction to Literature	3
	<i>Score of 4 (Higher Level):</i> ENGL 101 Freshman Composition	3
	<i>Score of 5, 6 or 7 (Higher Level):</i> ENGL 101 Freshman Composition	3
	ENGL 150 Introduction to Literature	3
Language A2	<i>Syllabus review required.</i> <i>Contact Foreign Language Department.</i>	
Language B (French)	<i>Score of 4 (Standard):</i> FREN 101 Basic Elements of French I	3
	<i>Score of 5, 6 or 7 (Standard):</i> FREN 101 and 102 Basic Elements of French I and II	6
(Spanish)	<i>Score of 4 (Standard):</i> SPAN 101 Basic Elements of Spanish I	3
	<i>Score of 5, 6 or 7 (Standard):</i> SPAN 101 and 102 Basic Elements of Spanish I and II	6
	<i>Score of 4 or higher (Higher Level):</i> SPAN 101 and 102 Basic Elements of Spanish I and II	6
Language B (Other languages)	<i>Syllabus review required. Contact Foreign Language Department.</i>	
Language ab initio	<i>Syllabus review required. Contact Foreign Language Department.</i>	
Business & Management	BUAD 100 Introduction to Business	3
Economics	ECON 200 Basic Economics	3
Geography	GEOG 195 Geography Elective	3
History	HIST 100 The Contemporary World in Historical Perspective	3
Special Topics in History	<i>Syllabus review required. Contact History Department.</i>	3
Info. Tech. in a Global Society	COSC 100 Introduction to Computer Science	3
Philosophy	<i>Score of 4 or higher (Standard):</i> PHIL 101 Introduction to Philosophy	3
	<i>Score of 4 or higher (Higher Level):</i> PHIL 101 Introduction to Philosophy	3
	PHIL 195 Philosophy Elective	3
Psychology	PSYC 150 General Psychology	3
Social & Cultural Anthropology	<i>Contact Sociology Department for review</i>	
Biology	BIOL 149 General Biology I	4
Chemistry	<i>Score of 4 or 5:</i> CHEM 201 General Chemistry I	4
	<i>Score of 6 or 7:</i> CHEM 201 General Chemistry I	4
	CHEM 202 General Chemistry II	4

Title of Exam	FSU Course Equivalent(s)	Credit Hrs. Awarded
Design Technology	PHYS 195 Physics Elective	3
Environmental Systems	IDIS 160 Science, Technology and Society	3
Physics	<i>Score of 4 or 5 (Higher Level):</i> PHYS 215 General Physics I	4
	<i>Score of 6 or 7 (Higher Level):</i> PHYS 215 General Physics I	4
	PHYS 216 General Physics II	4
Further Mathematics	<i>Score of 4 (Standard):</i> MATH 236 Calculus I	4
	<i>Score of 5, 6 or 7:</i> MATH 236 Calculus I and at least one additional course from MATH 237 or MATH 380.	4
	<i>(Syllabus review required. Contact Math Dept.)</i>	3-4
Mathematics Higher Level	<i>Score of 4:</i> MATH 120 Pre-Calculus Mathematics	3
	<i>Score of 5, 6, or 7:</i> MATH 120 Pre-Calculus Mathematics and at least one additional course from among MATH 236, MATH 237 or MATH 380.	3
	<i>(Syllabus review required. Contact Math Department.)</i>	3-4
Mathematical Methods	<i>Score of 4 (Standard):</i> MATH 102 College Algebra	3
	<i>Score of 5, 6 or 7 (Standard):</i> MATH 120 Pre-Calculus Mathematics	3
	<i>Score of 4 (Higher Level):</i> MATH 120 Pre-Calculus Mathematics	3
	<i>Score of 5, 6 or 7 (Higher Level):</i> MATH 236 Calculus I	4
Mathematical Studies	<i>Score of 4 (Standard):</i> MATH 104 Intro to Math. Problem-Solving	3
	<i>Score of 5, 6 or 7: (Standard):</i> MATH 104 Intro to Math. Problem-Solving and possibly one additional course from among MATH 102, MATH 120 or MATH 209	3
	<i>(Syllabus review required. Contact Math Dept.)</i>	
Computer Science	<i>Contact Computer Science department for review.</i>	
Visual Arts	Course equivalency determined based on portfolio review. Contact Department of Visual Arts.	3
Music	MUSC 195 Music Elective	3
Theatre Arts	THEA 195 Theatre Elective	3

CREDIT-BY-EXAM AND OTHER NON-TRADITIONAL LEARNING

College Level Examination Program (CLEP)

Following is the list of College Level Examination Program exams evaluated as of 2009. Exams without course equivalency/credit listed may be accepted, but are not yet evaluated. Minimum score required is **50**, unless otherwise noted.

Title of Exam	FSU Course Equivalent(s)	Credit Hrs. Awarded
GENERAL		
College Composition	ENGL 101 Freshman Composition	3
Humanities	HUMA 195 Humanities Elective	6
Mathematics	MATH 195 Mathematics Elective	6
Natural Sciences	SCIE 195 Natural Science Elective	6
Social Sciences & History	SOSC 195 Social Science Elective	6

SUBJECT**Composition and Literature**

American Literature	ENGL 261 American Lit.: Colonial to Present	3
Analyzing & Interpreting Literature	ENGL 150 Introduction to Literature	3
English Literature	ENGL 260 British Literature: Beowulf to Present	3
College Composition Modular	ENGL 101 Freshman Composition	3

Foreign Languages

College-level French	<i>Level I: Score of 50 minimum:</i>	
	FREN 101 Basic Elements of French I	3
	FREN 102 Basic Elements of French II	3
	<i>Level II: Score of 59 minimum:</i>	
	FREN 101 Basic Elements of French I	3
	FREN 102 Basic Elements of French II	3
	FREN 211 French Grammar, Composition, and Conversation I	3
	FREN 212 French Grammar, Composition, and Conversation II	3
College-level German	Evaluated at student request	
College-level Spanish	<i>Level I: Score of 50 minimum:</i>	
	SPAN 101 Basic Elements of Spanish I	3
	SPAN 102 Basic Elements of Spanish II	3
	<i>LEVEL II: Score of 63 minimum:</i>	
	SPAN 101 Basic Elements of Spanish I	3
	SPAN 102 Basic Elements of Spanish II	3
	SPAN 211 Spanish Grammar, Composition, and Conversation I	3
	SPAN 212 Spanish Grammar, Composition, and Conversation II	3

Title of Exam	FSU Course Equivalent(s)	Credit Hrs. Awarded
Social Sciences and History		
American Government	POSC 110 Introduction to American Politics	3
History of the U.S. I: Early Colonizations to 1877	HIST 103 History of the U.S. (to 1876)	3
History of the U.S. II: 1865 to the Present	HIST 104 History of the U. S. (1876 to present)	3
Human Growth & Development	<i>Score of 55 minimum required:</i> PSYC 210 Child Development	3
Intro to Educational Psychology	<i>Evaluated at student request</i>	
Introductory Psychology	PSYC 150 General Psychology	3
Introductory Sociology	SOCI 100 intro to Sociology	3
Principles of Macroeconomics	ECON 201 Principles of Economics (Macro)	3
Principles of Microeconomics	ECON 202 Principles of Economics (Micro)	3
Western Civilization I: Ancient Near East to 1648	HIST 195 History Elective	3
Western Civilization II: 1648 to the Present	HIST 195 History Elective	3

Science and Mathematics

Calculus w/Elementary Functions	MATH 236 Calculus I	4
College Algebra	MATH 102 College Algebra	3
College Algebra-Trigonometry	MATH 120 Pre-Calculus Mathematics	3
College Mathematics	MATH 195 Mathematics Elective	3
General Biology	BIOL 149 General Biology I	4
	BIOL 150 General Biology II	4
General Chemistry	CHEM 201 General Chemistry I	4
Trigonometry	MATH 103 Trigonometry	3

Business

Information Systems & Computer Applications:	<i>Evaluated at student request</i>	
Introductory Business Law	BLAW 291 Legal Environment of Business	3
Principles of Accounting	ACCT 211 Financial Accounting	3
Principles of Management	MGMT 351 Management of Organizations	3
Principles of Marketing	MKTG 361 Principles of Marketing	3

Special Departmental Exams

Below are listed special departmental examinations currently offered on campus. Students who believe they qualify for credit by exam must take the examination prior to signing up for the course. See the current Undergraduate Registration Guide for specific test dates or contact the department offering the exam for specific information.

Course	Credit Earned						
ACCT 211 Financial Accounting	3	ENGL 308 Soc. Science Adv. Comp	3	MUSC 101 Music Fundamentals	2		
ACCT 212 Managerial Accounting	3	ENGL 310 General Adv. Comp.	3	MUSC 102 Theory I	3		
ACCT 311 Intermediate Accounting I	3	GEOG 103 Physical Geography	4	PHSC 203 Physical Science	4		
ART 104 Two-Dimensional Design	3	GEOG 104 Human Geography	3	PSYC 150 General Psychology	3		
ART 105 Three-Dimensional Design	3	GEOG 207 Physical Geology and Geomorphology	4	PSYC 317 Abnormal Psychology	3		
ART 212 Drawing	3	GEOG 208 Earth System History	4	PSYC 386 Drugs and Human Behavior	3		
BIOL 109 Human Biology & the Environment	4	GEOG 275 Fundamentals of Geographic Data Handling	3	PSYC 387 Addictions Treatment Delivery	3		
BIOL 149 General Biology I	4	HEED 100 Personal Wellness	2	PSYC 388 Treatment Issues and Theory in Addictions	3		
BIOL 150 General Biology II	4	MATH 103 Trigonometry	3	PSYC 389 Ethics for the Addiction Counselor	1		
BMIS 320 Advanced Computer Applications in Business	3	MATH 104 Intro. to Math Problem-Solving	3	PSYC 430 Health Psychology	3		
COSC 100 Intro. to Computer Science	3	MATH 106 Algebra w/Calculus for Business	3	SOWK 375 Human Behavior & the Social Environment	3		
COSC 101 The Discipline of Computer Science	3	MATH 109 Elements of Probability & Statistics	3				
COSC 240 Computer Science I	4	MATH 119 College Algebra	3	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).			
COSC 350 Computer Org./Assem.Language	3	MATH 120 Pre-Calculus Math.	3				
ENGL 101 Freshman Comp.	3	MATH 220 Calculus for Applications I	3				
		MATH 236 Calculus I	4				

USM Bylaws, Policies and Procedures of the Board of Regents

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 September 18, 2009)

I. Policy

A. Purpose

To extend the benefits of its system of higher education while encouraging the economical use of the State's resources,¹ 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 costs 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 school-

RESIDENCY POLICY

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. A full-time active member of the Armed Forces of the United States whose home of record is Maryland or one who resides or is stationed in Maryland, or the spouse or a Financially Dependent child of such a person. Students that qualify under this provision will retain in-state status for tuition purposes as long as they are Continuously Enrolled regardless of a change in military assignment or status of the active member of the military.
 - D. A veteran of the United States Armed Forces with an honorable discharge who, within one year of discharge, presents documentation that he or she attended a secondary school in the State for at least three years, and graduated or received the equivalent of a high school diploma from a secondary school in the State. The veteran must present documentation and register at a USM institution within one year of discharge for this provision to apply.
 - E. 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.
 - F. A graduate assistant appointed through a USM institution for the semester/term of the appointment. Except through prior arrangement, this benefit is available only for enrollment at the institution awarding the assistantship.
- 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 requirement

VII. Implementation

This policy as amended by the Board of Regents on September 18, 2009 shall be applied to all student tuition classification decisions made on or after this date.

¹ *Annotated Code of Maryland, Education Article §12-101.*

FSU Procedure for Residency Status Appeals

Any student who wishes to appeal the decision of residency status previously determined by the Office of the Registrar or the Admissions Office, may do so in writing to the Appeals Board for Residency Status. This board shall consist of representatives designated by the Provost, the Vice President for Student and Educational Services, and the Vice President for Administration and Finance. The appeal will be reviewed by the board members in the order listed. Only by unanimous agreement of the board members will the decision of the Office of the Registrar or Admissions be overruled. Upon request, the President or designee has the authority to waive any residency requirements if it is determined that the student is indeed a permanent resident and application of the criteria creates an unjust result.

A student desiring to appeal should obtain and submit the University System of Maryland "Petition for Change in Classification for Tuition" through the office that made the original residency status decision, the Office of the Registrar or the Admissions Office.

V. Procedures

- A. An initial determination of in-state status will be made at the time of admission. The

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) "Arts" means courses that examine aesthetics and the development of the aesthetic form and explore the relationship between theory and practice. Courses in this area may include fine 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 to a baccalaureate program at a receiving institution, and ordinarily the first 2 years of the baccalaureate degree.
- (15) "Sending institution" means the institution of higher education of most recent previous enrollment by a transfer student at which transferable academic credit was earned.
- (16) "Social and behavioral sciences" means courses that examine the psychology of individuals, 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 not 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 according to the distribution as designated by the receiving institution. Except as provided in .03M of this chapter, the total general education credits for baccalaureate degree-granting public receiving institutions may not exceed 46 semester hours.

H. Student responsibilities. A student is held:

- (1) Accountable for the loss of credits that:
 - (a) Result from changes in the student's selection of the major program of study,
 - (b) Were earned for remedial course work, 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

parallel course or program;

- (b) Grades in the block of courses transferred average 2.0 or higher; and
- (c) Acceptance of the credit is consistent with the policies of the receiving institution governing native students following the same program.

- (2) If a native student's "D" grade in a specific course is acceptable in a program, then a "D" earned by a transfer student in the same course at a sending institution is also acceptable in the program. Conversely, if a native student is required to earn a grade of "C" or better in a required course, the transfer student shall also be required to earn a grade of "C" or better to meet the same requirement

B. Credit earned in or transferred from a community college is limited to:

- (1) 1/2 the baccalaureate degree program requirement, but may not be more than 70 semester hours; and
- (2) The first 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 same standards that apply to native students in the receiving institution, and the assignment shall be consistent with the State minimum requirements.
- (2) Transfer of credit from the following areas shall be consistent with COMAR 13B.02.02. and shall be evaluated by the receiving institution on a course-by-course basis:
 - (a) Technical courses from career programs;
 - (b) Course credit awarded through articulation agreements with other segments or agencies;
 - (c) Credit awarded for clinical practice or cooperative education experiences; and
 - (d) Credit awarded for life and work experiences.

- (3) The basis for the awarding of the credit shall be indicated on the student's transcript by the receiving institution.

- (4) The receiving institution shall inform a transfer student of the procedures for validation of course work for which there is no clear equivalency. Examples of validation procedures include ACE recommendations, portfolio assessment, credit through challenge, examinations and satisfactory completion of the next course in sequence in the academic area.

- (5) The receiving baccalaureate degree-

granting institution shall use validation procedures when a transferring student successfully completes a course at the lower division level that the receiving institution offers at the upper division level. The validated credits earned for the course shall be substituted for the upper division course.

D. Program Articulation.

- (1) Recommended transfer programs shall be developed through consultation between the sending and receiving institutions. A recommended transfer program represents an agreement between the two institutions that allows students aspiring to the baccalaureate degree to plan their programs. These programs constitute freshman/sophomore level 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.

.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 course work successfully completed at a community college.

.08 Transfer Mediation Committee.

- A. There is to 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. A student believing that the receiving institution has denied the student transfer credits in violation of this chapter may initiate an appeal by contacting the receiving institution's transfer coordinator or other responsible official of the receiving institution within 20 working days of receiving notice of the denial of credit.

- C. Response by Receiving Institution.

- (1) A receiving institution shall:
 - (a) establish expeditious and simplified procedures governing the appeal of a denial of transfer of credit; and

- (b) respond to 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.

.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

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 (23:13 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 dis-

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

chair and the members of the grade grievance committee. If the dean recommends a grade change and the instructor refuses to change the grade, the dean will vacate and replace the grade in question.

In deciding whether the circumstances justify changing the grade, the dean shall determine whether the grievant has provided clear and convincing evidence of *arbitrary and capricious* grading. The dean's decision is final.

Student Records Annual Notification

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 written consent under several exceptions to FERPA, including the exception for disclosure to school officials with legitimate education 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 admin-

istrative, 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.

Index

Absences for Activities	40	Bachelor of Fine Arts Degree	30
Absences for Religious Observances	39	Bachelor of Science Degree	29
Academic Advising Policies and Procedures	38	Bachelor of Science in Nursing	30
Academic Calendar.....	iv	Bachelor of Science in Urban and Regional Planning	30
Academic Common Market	14	BFA in Art & Design	85
Academic Computing & Instructional Technologies.....	8	Biochemistry.....	92
Academic Dismissal.....	45	Biology.....	87, 173
Academic Eligibility for Athletes.....	46	Black Student Alliance.....	26
Academic Probation	45	Board Charges.....	15
Academic Program.....	29	Business Administration.....	51, 176
Academic Programs	3	Business Economics.....	54
Academic Regulations & Procedures	38	Business Law.....	176
Academic Standards.....	43	Business Management Information Systems	176
Academic Warnings.....	21, 45	bWell	23
Acceptance of Transfer Credit Policy	13	Call to Active Military Duty.....	42
Accounting.....	49, 171	Campus Life	23
Accreditation.....	ii	Campus Visits	12
Addictions Counseling.....	82	Capstone Experience	33
Additional Academic Opportunities	35	Career Connections	33
Additional Bachelor's Degree Program	36	Catalog Governing Graduation Requirements	34
Additional Major Program.....	37	Center for International Education	35
Admission	11	Certificate Programs.....	4, 14
Admission for G.E.D. Recipients.....	12	Change of Grades.....	44
Admission for Mature Adults.....	11	Chemistry.....	91, 176
Admission for Transfer Students	12	Chemistry, Traditional Track.....	91
Admission of International Students	12	Children's Center	9
Advanced Placement Examinations	239, 240	Choosing a Major	5
Advance Fees and Deposits	16	Class Attendance.....	39
Adventure Sports Concentration	78	Class Standing.....	39
Advising and Career Services.....	24	Climate System Science Concentration	119
African-American Studies.....	83, 171	Coaching	74
Alcohol/Drug Education Program.....	25	College Level Examination Program (CLEP)	239, 242
Americans with Disabilities Act.....	1	College of Business.....	47
Animal Behavior	84	College of Education.....	61
Application Dates	11	College of Liberal Arts & Sciences.....	81
Applied Physics	142	College Preparatory Program in High School	11
Art & Design.....	85, 172	Combined B.S. in Accounting/MBA Program	50
Art History.....	86	Communication Studies	93, 177
Athletics.....	27	Community Program Delivery Concentration	77
Athletic Training.....	73	Computer Information Systems.....	95
Attendance at Another Institution	40	Computer Print Graphics	94
Auditors	40	Computer Labs	8
Automobile Policy	23	Computer Science	96, 178
Bachelor of Arts Degree.....	30	Computer Science Certificates	98

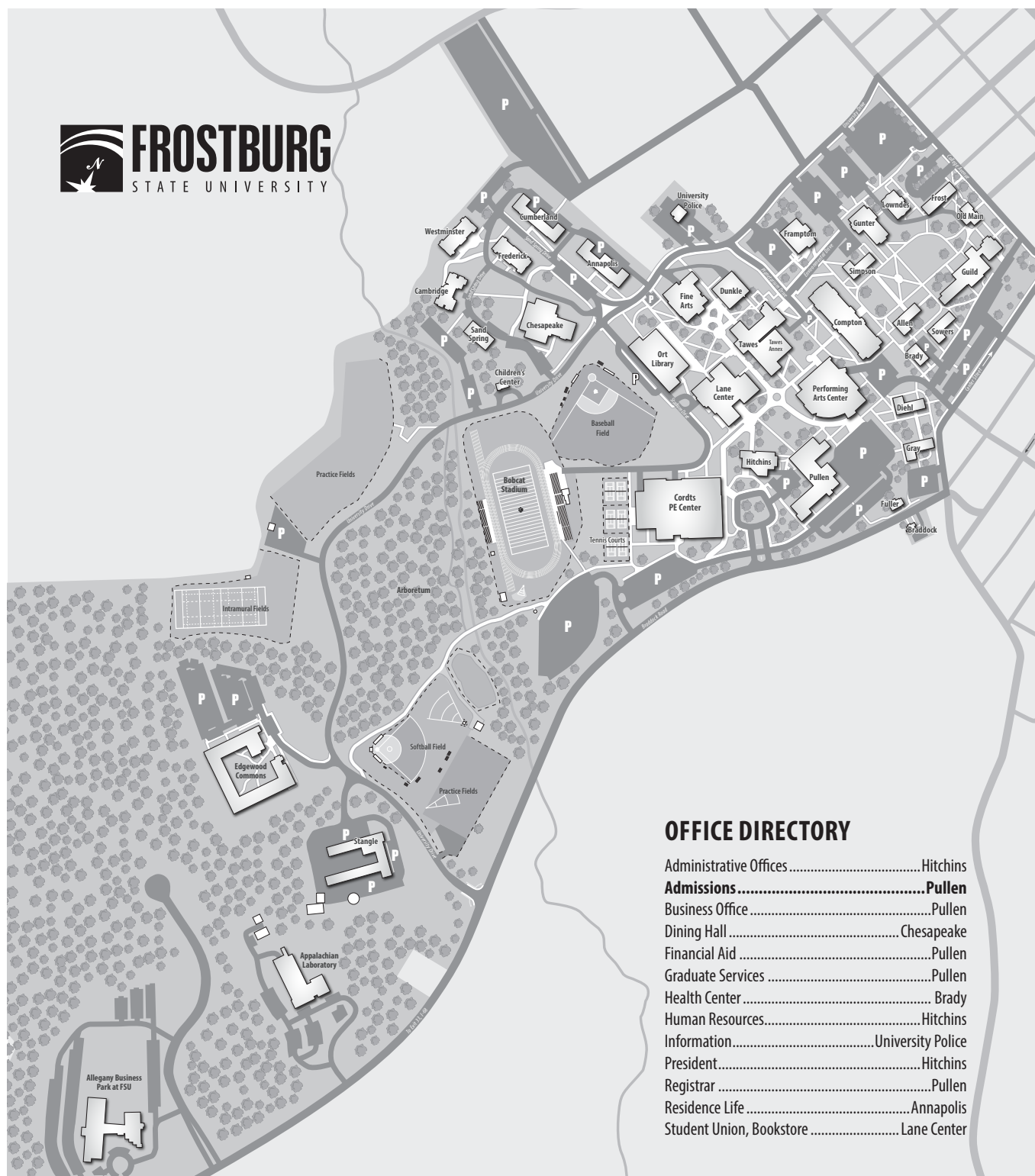
Cordts PE Center	7	Environmental Humanities	192
Core Skills	32	Environmental Policy	192
Counseling and Psychological Services	25	Environmental Science Concentration	89, 102
Course Changes	39	Ethnobotany	114
Course Descriptions	163	Exercise & Sport Science	75
Course Load	39	Expenses	15
Course Repetition and Grading	44	Experiential Learning and Internships	34
Creative Writing Track	107	Facilities	6
Credit by Examination	41, 239	Federal Aid	18
Credit-By-Exam Policies	239	Federal Loans	18
Criminal Justice	181	Federal Pell Grant	18
Cultural Anthropology	99	Federal Perkins Loan	18
Cultural Events	26	Federal Plus Loans	20
Dance	99, 182	Federal Stafford Loans	19
Dean's List	44	Federal Supplemental Educational Opportunity Grant	18
Declaring a Major	5	Federal Work-Study Program	18
Deferred Payment Plans	17	Fees	15
Degree Requirements	29	Film Studies	115
Dental Hygiene Preparation	100	Finance Concentration, Minor	52, 57, 192
Dentistry Preparation	133	Financial Aid	18
Departmental Examinations	242	Financial Aid for Collaborative Engineering Programs	20
Diagnostic Placement Tests	11	Financial Services Minor	57
Disability Support Services	24	Fine Arts	115
Dismissal	45	First Year Admissions Procedures	11
Distance Education	8	First Year Experience	23
Diversity and Equal Opportunity	1	Focuses	4
Diversity Center	24	Foreign Languages & Literature	116, 193
Double-counting GEP Courses	31	Forestry	117
Driving Times to Frostburg	6	French	116, 193
Drop/add	39	FSU Grants	20
Dual Degree in Engineering	106	Gaining Admission	11
Early Childhood/Elementary Education	65	General Coursework	37
Earth Science	101	General Education and Transfer	245
Economics	54, 55, 182	General Education Program (GEP)	31, 32
Educational Professions	63, 183	General Management	52
Electrical Engineering	103, 104	Geography	118, 196
Elementary Education	66	GEP Grading Policy	31
Elementary/Middle School Dual Certification	68	Getting to FSU	6
Emphases	4, 37	Global Business Concentration	52
Engineering	103, 105, 187	Global Systems Analysis Concentration	120
Engineering - Collaborative Program	106	Golden Identification Card	14
Engineering Management	104	Grade Forgiveness Policy	13
Engineering Physics Track	141	Grade Grievance Policy	249
English	110, 190	Grade Points	44
Enrollment of Undergraduates in Graduate Courses	36	Grades	43
Environmental Analysis and Planning	113	Graduate Studies	36

Graduation.....	42	Law School Preparation.....	129
Graduation with Honors.....	42	Leadership and Civic Engagement.....	26
Grants.....	18, 20	Leadership in Psychology.....	146
Graphic Design.....	94, 122	Leadership Studies.....	165, 204
Greek Organizations.....	27	Learning Assistance Programs.....	24
Health Insurance and Fees.....	25	Learning Communities.....	35
Health & Physical Education.....	75, 199	Leave of Absence.....	42
Health Promotion.....	76, 200	Liberal Studies.....	164, 205
Health Services.....	25	Library.....	7
High School GPA.....	11	Limited Pass/Fail Option.....	43
History.....	123, 20	Literature Concentration.....	110, 191
History of the Americas Concentration.....	124	Main Campus.....	6
Honor Societies.....	27	Majors.....	3, 33
Honors Program.....	160, 204	Majors and Minors.....	33
Hospitality Management & Tourism Concentration.....	79	Management Minor.....	58, 205
How to Undertake a Grade Grievance.....	249	Mandatory Fees.....	15
Humanities.....	202	Mapping Sciences Concentration.....	121
Human Resource Management Concentration.....	52	Marketing.....	53, 58, 206
Immunization.....	25	Maryland State Scholarships.....	20
Incompletes.....	43	Mass Communication.....	130, 206
Industrial Chemistry.....	102	Materials Engineering.....	104
Information Technology.....	125, 202	Mathematical Sciences.....	132
Instrumental Performance Track.....	135	Mathematics.....	131, 208
Integrated Math/Science.....	203	Meal Plans.....	23
Inter-College Programs.....	3, 159	Mechanical Engineering.....	107, 190
Interdisciplinary Studies.....	33, 203	Medical Technology Preparation.....	132
International Area Studies.....	161	Medicine.....	133
International Baccalaureate Exams (IB).....	241	Message from the President.....	iii
International Baccalaureate Programme.....	239	Mid-semester Warnings.....	43
International Business Concentration.....	162	Minimum Academic Progress Standards for Athletes.....	45
International Development Concentration.....	164	Minors.....	4, 33
International Economics Concentration.....	164	Mission of the University.....	1
International Education.....	35	Modes of Inquiry.....	32
International History Concentration.....	124	Molecular Biology Concentration.....	88
International Politics Concentration.....	163	Music.....	134, 210
International Students.....	12, 26	NC Grade.....	43
International Student Services at FSU.....	36	Networking Certificate.....	98
International Studies.....	162, 204	Networks Concentration.....	97
Internships.....	34	Non-Graded Assessment Requirements.....	41
Interpretive Biology and Natural History.....	90	Nursing.....	136, 212
Intersession.....	35	Nursing Preparation.....	138
Jazz Studies.....	126	Occupational Therapy Preparation.....	133
Journalism.....	127	Optometry Preparation.....	133
Lane University Center.....	7	Organizations.....	27
Law.....	128	Orientation.....	30, 213
Law and Society.....	128	Orientation Requirement.....	30

Other Instructional Sites.....	9	Religious Organizations.....	27
P-12 Programs	70	Required Medical Form	25
Part-time Study	35	Residence Hall Association	23
Pass/Fail Option	43	Residence Hall Contract.....	23
Payment of Fees.....	17	Residence Hall Damage Deposit.....	16
Performing Arts Center	7	Residence Life	23
Personnel Register	229	Residency.....	14
Pharmacy Preparation	140	Residency Policy.....	243
Phase I Admission Requirements	64	Residency Status Appeals.....	244
Phase II Admission Requirements	64	Restricted Grade Forgiveness Policy for Returning Students.....	13
Philosophy	140, 213	RN to BSN.....	136
Physical Education	75, 214	Room and Board	15
Physical Education Center	7	S.A.F.E. Office	25
Physical Science	216	SAT/ACT.....	11
Physical Therapy Preparation	167	Satisfactory Progress Standards	21
Physics	141, 216	Scholarships.....	22
Policies.....	239	Secondary/Adult Generic Special Education	72
Policy on Student Residency Classification	14	Secondary Programs	71
Political Science	143, 218	Secure Computing and Information Assurance.....	148
Post-Baccalaureate Study at the Undergraduate Level.....	36	Senior Citizen Golden Identification Card	14
Pre-Baccalaureate Programs	37	Small Business/Entrepreneurship.....	53, 59
Pre-Dental	133	Social Science.....	168, 223
Pre-Health Professions.....	133	Social Work	150, 223
Pre-Health Professions Option	88	Sociology	151, 224
Pre-Medical.....	133	Software Development Certificate	98
Pre-Veterinary Medicine	133	Spanish	116, 193
Probation	45	Special Academic Services.....	35
Procedures for Review of Alleged Arbitrary and Capricious Grading	249	Special Coursework Fees	16
Professional Concentration for Chemistry.....	92	Special Departmental Exams	239, 242
Professional Organizations	27	Special Instruction Fees.....	16
Professional Writing Concentration	112	Special Interest Organizations.....	27
Programming Certificate	98	Specialized Facilities.....	7
Psychology	144, 220	Standards Governing Academic Probation and Dismissal	45
Public Administration	142	State Aid	20
Public Policy Economics.....	56	State Student Work	20
Public Relations.....	147	S.T.E.M. Program	23
Quantitative Economics.....	56	Student Academic Responsibility	38
Reading Improvement and Development Course	192	Student Government Association (SGA)	26
Readmission.....	13	Student Involvement	26
Recreation and Parks Management.....	77, 222	Student Publications and Media	26
Refund Policy	17	Student Records Annual Notification.....	250
Refund\Repayment Policy.....	20	Student Services	24
Refund Schedules.....	17	Student Support Services.....	24
Regional Math/Science Center	25	Study Abroad	35
Registered Student Organizations.....	28	Study Abroad Programs	36
Registration	39	Summer Session.....	35

Sustainability Studies.....	152, 226
Teacher Education Report Card.....	62
Teaching Certification	37
Teaching of Writing Emphasis	112
Testing	41
Theatre.....	153, 226
The Campus and Its Surroundings	6
Therapeutic Recreation Concentration	79
Tourism Concentration	79
Traditional Physics Track.....	141
Transcripts of Records.....	41
Transfer Policies	13
Transfer Students	12
Tuition and Fees	15
Tuition and Fees for Collaborative Engineering Programs.....	15
TuitionPay Plan	17
Tutoring Center	24
Undergraduate Degree Requirements.....	29
Undergraduate Institutional Learning Goals	2
University Children's Center.....	9
University History.....	10
University Organizations	27
University Programming Council.....	26
University System of Maryland at Hagerstown.....	8, 33
Upward Bound	25
Urban and Regional Planning	155
USM-Hagerstown.....	8, 33
USM Inter-institutional Registration	35
Veterans Affairs	25
Veterinary Medicine Preparation.....	133
Vocal Performance Concentration	135
Voluntary Meal Plans	16
Wildlife & Fisheries	156
Withdrawal	20, 41, 43
Women's Studies.....	157, 229
Work-Study Program	18
Writing.....	112

Campus Map



OFFICE DIRECTORY

Administrative Offices	Hitchins
Admissions	Pullen
Business Office	Pullen
Dining Hall	Chesapeake
Financial Aid	Pullen
Graduate Services	Pullen
Health Center	Brady
Human Resources	Hitchins
Information	University Police
President	Hitchins
Registrar	Pullen
Residence Life	Annapolis
Student Union, Bookstore	Lane Center

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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 21532-2303.

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Center for Advising & Career Services	Sand Spring Hall	301.687.4403 FAX 301.687.4785
Financial Aid	Pullen 114	301.687.4301 FAX 301.687.4737
On-Campus Housing	Annapolis Hall	301.687.4121 FAX 301.687.7641
Registration and Transcripts	Pullen	301.687.4346 FAX 301.687.4597
Student Services	Hitchins 116	301.687.4311 FAX 301.687.4937
University & Student Billing	Pullen	301.687.4321 FAX 301.687.4592
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