

# Catalog Home

## To Apply:

Contact the Office of Admissions  
Toll free 1-800-929-4778  
or visit our website at WWW.SRU.EDU  
Slippery Rock, Pennsylvania 16057-1326  
1-800-SRU-9111

## Rock Solid Education

Produced under the supervision of Slippery Rock University's division of Academic Affairs. This catalog contains requirements, regulations, and descriptions that are subject to change at any time. Slippery Rock University specifically reserves the right and authority to alter and amend any and all requirements contained herein. The educational policies and procedures are reviewed and changed continually in keeping with the educational mission of the university. Consequently, this document is intended to be used only as an informational guide. Students are responsible for keeping informed of official policies and regulations and for meeting all appropriate requirements. Slippery Rock University of Pennsylvania is a member of the Pennsylvania State System of Higher Education

# Respect for Individuals in the Community Statement

The statement states:

"Slippery Rock University provides an environment that respects, encourages, and promotes the talents and contributions of all. Slippery Rock University values a community with a shared sense of purpose, where people demonstrate mutual respect and appreciation. Slippery Rock University values diversity that honors and includes all persons regardless of age, creed, disability, ethnic heritage, gender, gender identity, race, religion, sexual orientation, or socioeconomic status in academic and extracurricular endeavor, in the working environment, and in the daily life of the university community."

# Academic Life

A quality academic life for all students is the focus of Slippery Rock University. Students will find that their priority actively centers on the intellectual development necessary to successfully achieve their bachelor's degree.

Click on a link for more information.

- [How Long Will It Take?](#)
- [What Degree Will I Receive?](#)
- [Academic Degrees and Programs](#)
- [Choosing an Academic Program](#)
- [Liberal Studies](#)
- [Academic Major](#)
- [Academic Minor](#)
- [Internships](#)
- [Special Recognition of Academic Achievement](#)
  - [Academic Honors Convocation](#)
  - [Academic Honors Month](#)
  - [Deans' List](#)
  - [Honors at Graduation](#)

- Honors Program

## How Long Will It Take?

[^ TOP](#)

At SRU, the undergraduate program of study requires a minimum of 120 semester hours of course credit hours to receive a bachelor's degree. Some students will actually complete more than 120 credit hours. This occurs for one of three reasons:

- Some students will be required to take additional courses necessary to develop basic academic competencies. These courses are not counted as credit toward graduation. (See Liberal Studies basic requirement section for more detail.)
- Some students may choose to take more than 120 credit hours. For Example: when students choose to complete more than one major, or a minor/additonal specialization.
- Some majors require more than 120 credit hours for a bachelor's degree.
- Post-baccalaureate students must complete at least 30 new credit hours at SRU to earn a baccalaureate degree.

## What Degree Will I Receive?

[^ TOP](#)

The bachelor's degree awarded depends on a number of factors particularly the major selected. If a student completes more than one major, one or two degrees may be awarded depending upon the total number of credits earned and the degrees associated with each major. See the "Earning 2 Degrees or 2 Majors" section in the Academic Policies portion of this catalog.

## Choosing an Academic Program

[^ TOP](#)

What Makes Up an Academic Program?

Courses a student takes during their SRU experience can be broadly divided into three types: Liberal Studies, Major and Electives. Beyond this, individual students may also take courses in a minor field or for a certificate.

## Liberal Studies

[^ TOP](#)

In Fall 2005, a new liberal studies program took affect for all students. This new Liberal Studies Program benefits Slippery Rock University continuing students as well as new incoming students.

The program contains six critical goals or areas of study. For each area, students select one or two classes from a selection of "goal courses." In addition, in some areas of study, students select a course from a wide class selection identified as "enrichment courses." These courses provide the opportunity to broaden and deepen knowledge in the goal area.

### **Goal I: Basic Requirements**

The educated person must be able to communicate effectively in oral and written modes using varied media and information sources. A university education should give attention to encouraging intellectual levels that will equip the individual for an energetic and productive life.

### **Goal Courses (9 credits)**

Some students may be exempted from one or more of the required courses based on entrance examination and/or pertinent experience. If students are exempted from a required goal course, no credit will be awarded, and the student will still be required to complete at least 45 credits of liberal studies coursework.. Some students may be required to take additional courses to develop basic academic requirements in mathematics. However, credits earned in those courses are not applicable toward the credits required for a baccalaureate degree.

Goal courses in this category, with the exception of Interpreting Literature, will be graded as A, B, C, or NC (no credit).

The basic requirement courses, with the exception of Interpreting Literature, are subject to continuous registration. Students during the first semester of enrollment will be placed into the appropriate basic requirement course(s). Students who receive an "NC" in these courses must repeat the course(s) the following semester. After the first week of classes students may not withdraw from basic requirement courses, with the exception of Interpreting Literature.

### **Goal II: The Arts**

Through the creative process, writers and artists express, challenge, and extend societal values. To understand our own and other cultures, one must come to terms with artistic efforts. Ideally, such understanding will lead to experiences in which the individual seeks to be a participant in the arts, finding creative ways to express feelings and insights.

#### **Goal Courses (3 credits)**

It is strongly recommended that all students enrolled in arts goal courses attend a minimum of two arts events.

### **Goal III: Global Community**

The educated person who is aware of other people, places and values exhibits an enlightened perspective and appreciates cultural diversity. The university must assist in developing insights and skills, which will enable every student to value humanity's worth, dignity and contributions.

#### **Goal Courses (9 credits)**

Three credits of US courses and six credits of non-US courses taken will meet the requirement. The modern language courses used to satisfy the BA requirement may not be used in the portion of this global community perspective block.

### **Goal IV: Human Institutions and Interpersonal Relationships**

Our society depends heavily upon groups, organizations and institutions to function. The student will demonstrate an understanding of individual and group behavior by developing cooperative work strategies, examining individual and societal values, and exploring social issues.

#### **Goal Courses (3 credits)**

### **Goal V: Science, Technology and Mathematics**

The educated person studies science, technology and mathematics not only to master specific disciplinary content, but also to understand the modes of thought and methods of inquiry of the scientist.

Rigorous, disciplined inquiry enables us to access information and process that enhance physical well being and our natural resource use.

#### **Goal Courses (9-10 credits)**

Students are required to have one laboratory experience in either the goal or enrichment areas in the Biology, Chemistry, Physics, or Geography, Geology or the Environment departments.

### **Goal VII: Challenges of the Modern Age**

The essential characteristic of the educated person is the ability to weigh alternatives and make thoughtful choices. The rapidly changing world in which we live demands that we all make enormously difficult decisions, choosing wisely and responsibly in an area of competing persuasions. Courses in Goal VII will have a minimum prerequisite of "Advanced Standing."

#### **Goal Courses (3 Credits)**

#### **Enrichment Courses (9 credits)**

Students must choose one course from each of three of the following four areas:

1. The Arts (Select one-three credit course or three different one-credit courses)

2. Global Community
3. Human Institutions and Interpersonal Relationships
4. Science, Technology and Mathematics

For assistance with the liberal studies requirements, please contact Academic Advisement at 724-738-2009, Academic Services at 724-738-2012, Academic Records and Summer School at 724-738-2010, or Enrollment Services at 724-738-4868.

## Academic Major

[^ TOP](#)

In addition to the liberal studies requirements, the university requires students to select a major or a curricular area of concentration. Students are typically responsible for meeting the major requirements in effect at the time they enter the university or change majors. When students leave the university and are later readmitted, they become responsible for meeting the major requirements in effect at the time they are readmitted.

If students would benefit from meeting a set of major requirements other than those in effect at the time they declared their major or were admitted/readmitted to the university, their advisor may request of the students' academic dean that a different set of major requirements be met.

At the time of enrollment or by the end of the sophomore year, students must select a major. The university encourages students to select during their early semesters the exploratory (undeclared) student status if they have uncertainty or apprehension about the choice of a major. If students desire to change their major, they must complete, with departmental chairperson's signature, the change of major form in the Office of Academic Records and Summer School.

Using their criteria, departments determine the admission or rejection of students into their departments to pursue their major. Students may obtain these criteria from the departmental advisor or chairperson. Course requirements for a major may not be taken using a Pass/No Credit grade option. Courses taken within a student's first major department may not be used to meet any Liberal Studies program requirements.

Students may declare a second major by completing a declaration of second major form. The requirements for all majors must be completed prior to the awarding of the student's first baccalaureate degree. Once graduated, students may not return and add additional majors to their undergraduate record. Undergraduate courses taken after graduating will be recorded as post baccalaureate courses on the transcript.

Students may earn two majors or two degrees simultaneously. Also, the university's modern language requirement is a bachelor of arts degree requirement and not a requirement of a major. Therefore, students earning a second major would not be required to complete the modern language requirement for the second major. However, students earning two degrees would be required to complete the modern language requirement, if one of the degrees is a B.A.

All academic majors must consist of at least 30 credits; at least 50% of which must be completed at SRU and 50% of which must be at the upper division (numbered 300 or above).

## Academic Minor

[^ TOP](#)

A minor is a set of courses that meet specified guidelines and is designed to allow a sub-major concentration in an academic discipline or in a specific area within a discipline. Unlike a specialization or a concentration, the minor is recorded on the students' transcripts, providing the students have maintained at least a 2.0 minimum quality point average (some minors may require a higher GPA) for all coursework required for the minor. Courses used to meet the academic requirements of a minor may not be taken on a Pass/No Credit basis.

The minimum hours for a minor shall be no fewer than 18 credit hours, excluding courses required for professional certification.

A minimum of 6 credit hours of the minor must be upper division (courses numbered 300 and above). For each student at least 6 credits must be completed at Slippery Rock University.

Ordinarily, a minor is a subset of some major. But, 1) a minor may concentrate on an area which involves two or more academic disciplines, each of which is related to the minor, (For example, no major exists in journalism, but the departments of English and communication jointly offer a minor in journalism, which includes courses from each of the disciplines) or 2) a minor may be offered in a discipline where no major is given. (For example, East Asian Studies.)

Students cannot major and minor in the same discipline/academic area. For example, they cannot major and minor in mathematics, but they can major in mathematics and minor in statistics.

Students may declare minors at any time by completing a declaration of minor form available in the Office of Academic Records and Summer School.

The requirements for all minors must be completed prior to the awarding of the first baccalaureate degree. Once graduated, students may not return and add additional minors to their undergraduate record. If students, however, are pursuing a second baccalaureate degree, the majors and minors completed will be added to the transcript under the second degree.

Students are typically responsible for meeting the minor requirements in effect at the time they enter the university or change minors. When students leave the university and are later readmitted, they become responsible for meeting the minor requirements in effect at the time they are readmitted.

If students would benefit from meeting a set of minor requirements other than those in effect at the time they declared their minor or were admitted/readmitted to the university, their adviser may request of the student's academic dean that a different set of minor requirements be met.

### **Internships**

[^ TOP](#)

Slippery Rock University offers a diverse program of internships through which students may earn from 1 to 12 credits. A minimum of 40 hours of work is required for each credit earned. In some cases an internship or other field experience is required for a major. Internships provide students with an opportunity to apply their academic preparation in a variety of professional or occupational settings. Through an internship, students have the opportunity to expand their knowledge and to enhance their learning of the theories of academic disciplines and programs of study through appropriate career-related experiences and to provide them with the knowledge and experience necessary for obtaining certification or licensing. Students may enroll in semester, academic year, or summer internships with governmental agencies, private firms, or non-profit organizations both in the United States and abroad.

Students must have a minimum quality point average of 2.000 in their major (or program where applicable), and at least a 2.000 for all coursework, including the semester previous to placement. The agency, academic department or program may specify higher standards and/or other academic requirements. Acceptance into the internship program must occur prior to registration for the course. Registration in the course, however, does not guarantee placement in the field. Agency supervisors' evaluations are a requirement for completion of the internship and may be a factor in determining the final grade. Students must be at least a junior in good standing at the time they begin the internship.

Interested students should check with their major department for internship information in their fields. Students are permitted to earn no more than 12 credits in any one internship and a total of 15 credits for all internships taken.

## **Special Recognition of Academic**

[^ TOP](#)

### **Achievement**

Slippery Rock University faculty and administration place a high value on the academic accomplishments of its students. SRU's academic reputation and its stature in the community of universities are tied inextricably to the scholastic achievements of its students. The university's rich and extensive resources provide a foundation of support for the realization of this goal. Scholarly and dedicated university faculty strive to challenge students' intellectual development and their achievement of excellence. The university community believes that student efforts in the attainment of high levels of scholarship deserve appropriate recognition and officially acknowledges student achievement throughout the academic year.

## Academic Honors Convocation

[^ TOP](#)

In the Spring, the university observes its Academic Honors Convocation, a formal ceremony with regalia and academic procession. The convocation provides for the recognition of Deans' List students and the twenty students in the sophomore, junior, and senior classes who attain the highest cumulative averages for coursework completed at Slippery Rock University. These individuals are presented with the President's Award of Achievement. The convocation also recognizes scholar athletes, service scholars, academic scholarship recipients, students on the Dean's List and top ranking graduate students and serves to set the tone for an academic atmosphere where excellence in scholastic endeavors is given the highest priority.

## Academic Honors Month

[^ TOP](#)

During the month of April many of the university colleges and departments honor their students who have excelled academically. The events take various forms, including banquets that are held on and/or off campus where recognition awards are presented. In addition, the director of the Honors Program coordinates a month-long program of lectures, seminars and presentation of papers by Slippery Rock University students and faculty and by special guests.

## Dean's List

[^ TOP](#)

Undergraduate students who earn a semester grade point average of 3.500 or higher on a schedule of at least 12 newly earned credits will achieve the Deans' List as long as their cumulative GPA is at least 2.000. Student teachers may achieve Dean's List status if they have earned 90 or more credits and have a cumulative GPA of 3.50 or higher at the end of the semester in which they student taught. P/NC courses will not be computed into the 12 credit-hour minimum. During the Academic Honors Convocation, these students will be formally presented to the university community. There is no Deans' List during the summer or winter sessions. Post-baccalaureate and graduate students are not eligible for the Dean's List.

## Honors at Graduation

[^ TOP](#)

The policies for awarding Latin honors are currently under review. If changes should occur they will be noted in this catalog and announced to the university community.

At both the December and May commencement ceremonies, the university recognizes students who have met the academic criteria for Latin honors.

- Undergraduates working on their first baccalaureate degree may qualify for honors at graduation. Post-baccalaureate and graduate students are not eligible for these honors.
- A minimum of 60 credits must be earned at Slippery Rock University. These credits may include: all credit course work; all credits earned through SRU's credit by exam program, including the NLN Mobility Profile II, administered by the Department of Nursing; SRU credit earned with a "P" grade; and credits earned as a visiting student at another PASSHE institution.
- Credits earned by any other form of credit by exam (AP, CLEP, PEP, DSST and NLN (other than the Mobility Profile II), credits earned at other universities (transfer & transient) and non-SRU course work taken abroad will not count toward the 60 credit minimum.
- The following cumulative GPA's must be earned to qualify for honors at graduation.

Summa Cum Laude (With the Highest Honor) 3.800 - 4.000

Magna Cum Laude (With High Honor) 3.600 - 3.799

Cum Laude (With Honor) 3.500 - 3.599

No restrictions will apply to students who repeat grades of D or F and who still meet the criteria for honors at graduation.

At commencement the names of these honor students are specially designated in the commencement program. In addition, the Summa Cum Laude graduates wear medallions around their necks, which are gifts of the Slippery Rock

University Alumni Association; Magna Cum Laude graduates wear white honor cords; and Cum Laude graduates wear green honor cords.

Students identified by the director of the University Honors Program as having completed the requirements of the Honors Program will also wear special honor cords at graduation.

Recognition of honors at graduation will be based upon students' cumulative GPA at the end of the semester preceding graduation. Designation of honors on the university transcript will not be determined until the students' final semester grades are submitted and an official, final cumulative GPA is calculated.

## Honors Program

[^ TOP](#)

Slippery Rock University's Honors Program is designed to enrich the university experience by fostering a student-centered learning environment and by helping each student develop his or her individual potential as a life-long learner. Designed to encourage critical thinking and communication skills, honors courses emphasize reading, writing and research and encourage students to assume responsibility for their learning experiences, both on and off campus, through discussion-based classes and by participating in service-learning opportunities. Students in the program are fine scholars, but they are also committed to taking full advantage of their years spent at Slippery Rock University by participating in the extra-curricular and travel opportunities which the program offers.

All honors courses fulfill liberal studies requirements, which means that participation in the program will not extend a student's stay at Slippery Rock University. To graduate with an honors designation, students must complete a minimum of seven honors courses (21 credits) while maintaining an overall GPA of 3.25 or higher or 3.4 or higher if the student has an Honors scholarship. Students may select from a variety of specially-designed courses in the following departments: communication, English, political science, history, mathematics, philosophy, geography, geology, environmental science, physics and professional studies.

Students also have the opportunity to take Great Books courses, which are geared toward extensive reading in a specialized area. Content in these seminars varies from semester to semester and have included, Ancient Greek Culture (Greece), War and Peace (Russia), The Holocaust (Germany), Latin American History (Panama), Galileo (Florence), and Irish Playwrights (Ireland). Because a research project is a component of this course, the Great Books course is especially valuable for students contemplating graduate education.

Honors students enjoy a number of benefits, both in and out of the classroom, including seminar-style classrooms where enrollment is typically capped at 25 students per class; early registration privileges, and learning experiences through national and international travel opportunities. Every fall, Honors Program students present their research papers and projects at the National Collegiate Honors Council (NCHC) conference in cities like Kansas City, Washington D.C., Denver, San Antonio, Chicago, and Los Angeles. In addition, courses are offered every spring and summer, which include opportunities for travel abroad. In the past, students have traveled to Greece, London, Germany, Turkey, South Africa, Mexico and Ecuador.

The Honors Program is open to all qualified students, regardless of their major field of interest. Interested students must enroll formally by completing an application and submitting a two-page, typed essay in which they discuss what they hope to gain from their university experience and a resume that includes their leadership, service and extra-curricular involvement. If you are interested in participating, please call 724-738-4003, e-mail [honorsprogram@sru.edu](mailto:honorsprogram@sru.edu), or visit the Honors Program Web Site

## Academic Programs

# Slippery Rock University

Slippery Rock University

# College of Business, Information, and Social Sciences

105 Eisenberg Building  
724-738-2008

## **Dean**

Kurt Schimmel

## **Assistant to the Dean**

Larry McCarthy

## **Administrative Assistant**

Leigh McGuirk

## **Secretary**

Deborah White

## **Departments**

Communication

Computer Science

Criminology and Criminal Justice

Military Science

Professional Studies

Safety Management

School of Business

Sport Management

Slippery Rock University's College of Business, Information, and Social Sciences is comprised of eight academic departments: communication, computer science, military science, professional studies, criminology and criminal justice, safety management, sport management and the School of Business which includes the programs of accounting, economics, finance, management, and marketing.

Information and information processing are becoming more accessible and more important in daily life. Businesses rely on information and on individuals who can effectively process and analyze information. The university enhances opportunities for students to keep pace with a continually changing society. The information, social science, and business administration programs are thus united as one college to provide focus and unity for students.

Students majoring in the College of Business, Information, and Social Sciences must satisfy the university's liberal studies program requirements in addition to meeting specific major degree requirements. Study in the liberal arts, which contributes to life-long happiness and productivity, assists in developing skills in such areas as oral and written communication, problem-solving, critical thinking and mathematics. With specific departmental degree requirements, students who major in the College of Business, Information, and Social Sciences are assured of both breadth and depth of knowledge. The social sciences provide students with a disciplined approach to both the theories and methodologies that will assist them in understanding society and culture. The curriculum is committed to creating a learning environment of self-awareness and a sense of perpetual growth and development. Disciplines include: communication,



criminology, criminal justice, military science, professional studies, safety management, sport management, and business.

The College of Business, Information, and Social Sciences also combines popular and rapidly changing fields of study, supported with current technology and facilities for such areas as accounting, finance, marketing, and management in the School of Business, military science, communication, journalism, public relations and broadcasting, computer science, information systems, information technology, multimedia technology.

Students who have inquiries regarding programs in the College of Business, Information, and Social Sciences should contact specific departmental chairpersons or the office of the dean of the college.

Government Contracting Assistance Center (GCAC)

## **Government Contracting Assistance Center (GCAC)**

006 Eisenberg  
724-738-2346

**Contracting Specialist**  
Renee Decker

The Government Contracting Assistance Center (GCAC), is a unique segment of the College of Business, Information, and Social Sciences. GCAC is an economic development outreach program promoting economic growth in our region through assisting businesses to compete for federal, state, and local government contract and subcontract awards.

The GCAC is a full service Procurement Technical Assistance Center (PTAC). Services to area businesses include assisting with federal, state, and local government registration and certification, identifying bid opportunities, assisting with bid preparation and submittal. GCAC also provides training through regularly scheduled procurement fairs and seminars to educate companies on government contracting procedures and eBusiness initiatives.

## **Communication**

222 Eisenberg Building  
724-738-2032

Communication Department

The central mission of the Department of Communication at Slippery Rock university of Pennsylvania is to foster our students' abilities to be socially competent citizens and to find meaningful employment through high-quality educational experiences.

Because communication underlies all human pursuits, we seek to prepare students with the ethical standards necessary to preserve the ideals of democratic free expression. We also seek to develop their abilities to produce, distribute, analyze and critically consume communication. In keeping with this mission, we will continue to offer courses that serve the needs and goals of all students from across the university.

Maintaining the tradition of study of communication as a liberal art, and recognizing the often-blurred boundaries among communication specialties, we continue to offer an integrated Bachelor of Arts degree. In addition, we now offer a Bachelor of Science degree designed to provide the greatest focused preparation for students.

Our Key areas in the Bachelor of Science for the development of professional expertise include: Public Relations, Journalism and Emerging Technology & Multimedia.

**Chair**

Thomas Flynn

**Assistant Chair**

Mark Banks

**Secretary**

Marilyn Garczynski

**Faculty**

Mark Banks, Brett Barnett, Trudy Bayer, Mark Chase, Thomas Flynn, Jennifer Foster, Joseph Harry, James Laux, Ray Pastore, Christine Pease-Hernandez, Li Pu, Katrina Quinn, Thomas Stewart, Valerie Swarts, Amy Walters, Mark Zeltner

Communication is the means whereby relationships are created and sustained. Studying communication offers students the opportunity to learn about communication as well as to prepare for careers as widely diverse as broadcasting, audio and video production, web site and electronic graphics design, interactive multimedia production, journalism, public relations, speech and public address, and other related professions.

The Department of Communication offers both the Bachelor of Arts (BA) and the Bachelor of Science (BS) degrees. The BA emphasizes a broad liberal arts approach to communication, with five emphasis areas that include broadcasting/media production, public relations and corporate communication, print and broadcast journalism, emerging technologies and multimedia, and speech communication.

The BS degree emphasizes a more concentrated, skill-based approach in one of three tracks: public relations, journalism, and emerging technologies and multimedia.

Students in either degree program will have courses available in several areas. In broadcasting and emerging technologies, courses cover not only the traditional audio and video media, but also multimedia, web design, streaming media, and digital recording and editing in a multimedia laboratory. The explosion of technology and e-commerce has created a huge demand for individuals who can design, produce, and evaluate multimedia programs.

Courses in public and corporate communication cover such areas as public relations writing and campaign design, traditional and new media communication formats, Internet and intranet-based resources, and the latest desktop publishing, graphics, and corporate media capabilities.

Students emphasizing journalism study both the basics of print and broadcast journalism, plus advanced courses in journalism applications, including opportunities for involvement with the campus newspaper, radio, television, and Internet streaming and publishing. The department's active internship program affords qualified students in all areas the opportunity to test and develop their knowledge and skills.

Throughout the communication program at Slippery Rock, there is an emphasis on the integration of all communication forms and media. By completing a core of courses distributed among all the areas of communication, students are prepared in an all-encompassing array of concepts and skill development in this fast-changing discipline.

The all digital Television Studio, a three-camera color facility, located at 101 Vincent Science Hall, is a newly remodeled facility with a control room, offices, and the studio. The television news: studio production, television news: field production, and the broadcast announcing classes use the facility as a component of the broadcast journalism curriculum. The offices of the student production organization, WSRU-TV, are also located at the facility. This student organization produces variety and interview programs for distribution on the campus cable network.

# Communication (BA)

Communication Department

Students must earn a minimum GPA of 2.5 in the major and a minimum overall GPA of 2.0. A minimum grade of "C" is required in COMM 110, 310, and 410. At least 48 credits of the entire degree and 30 credits in the major must consist of upper level coursework.

## Requirements for the Major - Credits:40

Students are required to complete a program of 40 credit hours, including COMM 110, COMM 310 and COMM 410. The balance of the program is defined for each student by selecting courses from several levels in consultation with the advisor. All students in the Communication major must maintain an overall GPA of 2.5 to enroll in COMM 310 and COMM 410 or to graduate with a Communication degree.

The Bachelor of Arts degree requires proficiency at the 103 level of a modern language or the equivalent.

Students may transfer credits from other institutions toward the major but must earn at least 15 credits in communication from Slippery Rock University. At least 9 of these credits must be from courses numbered 300 or above, including at least 3 credits from courses numbered 400 or above.

### Level 1

Minimum grade of C must be achieved in this course

- COMM 110 - Communication Concepts Credits: 3

### Level 2

Choose 12 credits from the following:

- COMM 115 - Visual Literacy Credits: 3
- COMM 201 - Digital Imaging 1 Credits: 3
- COMM 215 - Small Group Communication Credits: 3
- COMM 217 - Intercultural Communication Credits: 3
- COMM 231 - Introduction to Public Relations Credits: 3
- COMM 232 - Publication Production Credits: 3
- COMM 242 - News Writing Credits: 3
- COMM 247 - Photojournalism Credits: 3
- COMM 248 - Interactive Multimedia 1 Credits: 3
- COMM 254 - Video Production Credits: 3
- COMM 258 - Interactive Multimedia 2 Credits: 3

## Level 3

Minimum grade of C must be achieved in this course

- COMM 310 - Communication Research Methods Credits: 3

## Level 4

Majors must take COMM310, Research Methods, as a pre-requisite or co-requisite to the courses below. Choose 12 credits from the following list:

- COMM 307 - Social Media Credits: 3
- COMM 312 - Argumentation Credits: 3
- COMM 314 - Interpersonal Communication Credits: 3
- COMM 315 - Organizational Communication Credits: 3
- COMM 318 - Professional Presentation Credits: 3
- COMM 332 - Case Studies in Public Relations and Integrated Communications Credits: 3
- COMM 333 - Public Relations Writing Credits: 3
- COMM 334 - Publication Production 2 Credits: 3
- COMM 342 - Sports Journalism Credits: 3
- COMM 343 - Feature Journalism Credits: 3
- COMM 347 - New-Media Journalism Credits: 3
- COMM 348 - Advanced Reporting Credits: 3
- COMM 350 - Editing for Video Credits: 3
- COMM 354 - TV Studio Production Credits: 3
- COMM 355 - TV Field Production Credits: 3
- COMM 359 - Interactive Multimedia 3 Credits: 3
- COMM 362 - Mass Media and Society Credits: 3
- COMM 363 - Audio Production Credits: 3
- COMM 431 - Public Relations and Integrated Communications Campaigns Credits: 3
- COMM 450 - Internship Credits: Up to 12
- COMM 453 - Media Project Management Credits: 3

## Level 5

Choose 3 credits from the following:

- COMM 415 - Persuasion Credits: 3
- COMM 419 - Propaganda: Ideology, Communication Warfare, and Social Control Credits: 3
- COMM 422 - History of Journalism Credits: 3
- COMM 441 - Issues in Journalism Credits: 3
- COMM 455 - History of Broadcasting Credits: 3
- COMM 458 - Media Criticism Credits: 3
- COMM 459 - Issues in Communication Technologies Credits: 3
- COMM 480 - The Communication Age Credits: 3
- COMM 498 - Selected Topics Credits: 3

## Level 6

7 credits required.

Minimum grade of C must be achieved in COMM410

- COMM 410 - Communication Law Credits: 3
- COMM 413 - Communication Theory Credits: 3
- COMM 493 - Senior Seminar Credits: 1

## Communication (BS) - Digital Media Production

Communication Department

Students must earn a minimum GPA of 2.5 in the major and a minimum overall GPA of 2.0. A minimum grade of "C" is required in COMM 110, 310, and 410. At least 48 credits of the entire degree and 30 credits in the major must consist of upper level coursework.

### Core Requirements - Credits: 17

- COMM 110 - Communication Concepts Credits: 3
- COMM 115 - Visual Literacy Credits: 3
- COMM 310 - Communication Research Methods Credits: 3
- COMM 362 - Mass Media and Society Credits: 3
- COMM 393 - Junior Seminar Credits: 1
- COMM 410 - Communication Law Credits: 3
- COMM 493 - Senior Seminar Credits: 1

### Level 1 Digital Media Fundamentals: Credits - 12

- COMM 201 - Digital Imaging 1 Credits: 3
- COMM 232 - Publication Production Credits: 3
- COMM 248 - Interactive Multimedia 1 Credits: 3
- COMM 254 - Video Production Credits: 3

### Level 2A Multimedia Emphasis: Credits - 15

- COMM 258 - Interactive Multimedia 2 Credits: 3
- COMM 307 - Social Media Credits: 3
- COMM 359 - Interactive Multimedia 3 Credits: 3
- COMM 401 - Digital Imaging 2 Credits: 3
- COMM 453 - Media Project Management Credits: 3

### Level 2B Television Production Emphasis: Credits - 15

- COMM 350 - Editing for Video Credits: 3

- COMM 354 - TV Studio Production Credits: 3
- COMM 355 - TV Field Production Credits: 3
- COMM 363 - Audio Production Credits: 3
- COMM 454 - Television Graphics Credits: 3

### Level 3 Digital Media Electives: Credits - 6

- COMM 247 - Photojournalism Credits: 3
- COMM 258 - Interactive Multimedia 2 Credits: 3
- COMM 307 - Social Media Credits: 3
- COMM 334 - Publication Production 2 Credits: 3
- COMM 335 - 2-D Animation Credits: 3
- COMM 347 - New-Media Journalism Credits: 3
- COMM 350 - Editing for Video Credits: 3
- COMM 354 - TV Studio Production Credits: 3
- COMM 355 - TV Field Production Credits: 3
- COMM 359 - Interactive Multimedia 3 Credits: 3
- COMM 363 - Audio Production Credits: 3
- COMM 401 - Digital Imaging 2 Credits: 3
- COMM 454 - Television Graphics Credits: 3
- COMM 459 - Issues in Communication Technologies Credits: 3
- COMM 480 - The Communication Age Credits: 3

### Internship: Credits - 3

- COMM 450 - Internship Credits: Up to 12

## **Communication (BS) - Journalism Track**

Communication Department

Students must earn a minimum GPA of 2.5 in the major and a minimum overall GPA of 2.0. A minimum grade of "C" is required in COMM 110, 310, and 410. At least 48 credits of the entire degree and 30 credits in the major must consist of upper level coursework.

### Requirements for the Major - Credits: 59

#### Core Requirements - Credits: 17

- COMM 110 - Communication Concepts Credits: 3
- COMM 115 - Visual Literacy Credits: 3
- COMM 310 - Communication Research Methods Credits: 3

- COMM 362 - Mass Media and Society Credits: 3
- COMM 393 - Junior Seminar Credits: 1
- COMM 410 - Communication Law Credits: 3
- COMM 493 - Senior Seminar Credits: 1

## Journalism Requirements - Credits: 18

- COMM 242 - News Writing Credits: 3
- COMM 305 - Broadcast Journalism Credits: 3
- COMM 343 - Feature Journalism Credits: 3
- COMM 347 - New-Media Journalism Credits: 3
- COMM 348 - Advanced Reporting Credits: 3
- COMM 450 - Internship Credits: Up to 12

## Communication Electives - Credits: 18

At least one each from Print and Broadcast and at least two from Media Concepts.

### Print Journalism Emphasis

- COMM 201 - Digital Imaging 1 Credits: 3
- COMM 232 - Publication Production Credits: 3
- COMM 247 - Photojournalism Credits: 3
- COMM 248 - Interactive Multimedia 1 Credits: 3
- COMM 334 - Publication Production 2 Credits: 3
- COMM 342 - Sports Journalism Credits: 3

### Broadcast Journalism Emphasis

- COMM 254 - Video Production Credits: 3
- COMM 307 - Social Media Credits: 3
- COMM 350 - Editing for Video Credits: 3
- COMM 354 - TV Studio Production Credits: 3
- COMM 355 - TV Field Production Credits: 3
- COMM 363 - Audio Production Credits: 3
- COMM 449 - Communication Projects Credits: 3

### Media Concepts

- COMM 405 - International Journalism Credits: 3
- COMM 413 - Communication Theory Credits: 3
- COMM 422 - History of Journalism Credits: 3
- COMM 441 - Issues in Journalism Credits: 3
- COMM 458 - Media Criticism Credits: 3
- COMM 480 - The Communication Age Credits: 3

### Choose one Political Science Course:

- POLS 101 - American National Government Credits: 3
- POLS 200 - State and Local Government Credits: 3

### Choose one Economics Course:

- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3

## **Communication (BS) - Public Relations Track**

Communication Department

Students must earn a minimum GPA of 2.5 in the major and a minimum overall GPA of 2.0. A minimum grade of "C" is required in COMM 110, 310, and 410. At least 48 credits of the entire degree and 30 credits in the major must consist of upper level coursework.

### Requirements for the Major - Credits: 56

#### Core Requirements - Credits: 17

- COMM 110 - Communication Concepts Credits: 3
- COMM 115 - Visual Literacy Credits: 3
- COMM 310 - Communication Research Methods Credits: 3
- COMM 362 - Mass Media and Society Credits: 3
- COMM 393 - Junior Seminar Credits: 1
- COMM 410 - Communication Law Credits: 3
- COMM 493 - Senior Seminar Credits: 1

#### Public Relations Emphasis - Credits: 27

- COMM 201 - Digital Imaging 1 Credits: 3
- COMM 231 - Introduction to Public Relations Credits: 3
- COMM 232 - Publication Production Credits: 3
- COMM 242 - News Writing Credits: 3
- COMM 315 - Organizational Communication Credits: 3
- COMM 332 - Case Studies in Public Relations and Integrated Communications Credits: 3
- COMM 333 - Public Relations Writing Credits: 3
- COMM 415 - Persuasion Credits: 3
- OR
- COMM 312 - Argumentation Credits: 3
- COMM 431 - Public Relations and Integrated Communications Campaigns Credits: 3



## Message Production and Preparation - Credits: 6

Select two courses - at least one must be 300 level or higher

- COMM 247 - Photojournalism Credits: 3
- COMM 248 - Interactive Multimedia 1 Credits: 3
- COMM 254 - Video Production Credits: 3
- COMM 258 - Interactive Multimedia 2 Credits: 3
- COMM 307 - Social Media Credits: 3
- COMM 318 - Professional Presentation Credits: 3
- COMM 334 - Publication Production 2 Credits: 3
- COMM 343 - Feature Journalism Credits: 3
- COMM 347 - New-Media Journalism Credits: 3

## Required Business Course - Credits: 3

- MGMT 351 - Organizational Behavior Credits: 3  
OR
- MRKT 330 - Principles of Marketing Credits: 3

## Applied Communication - Credits: 3

Internship minimum requirements are: 18 credits in major, junior status, 2.5 GPA in major and 2.5 GPA overall

- COMM 450 - Internship Credits: Up to 12

## Minor in Communication

Communication Department

Internship: only 3 credits may be counted toward the minor.

Students interested in a communication minor will have an advisor from their major department, but they are encouraged to seek assistance in choosing the appropriate communication courses from a faculty member in the Department of Communication.

Students must have a minimum 2.5 GPA overall.

Students may transfer up to 9 communication credits from other institutions. Transfer students must earn at least 3 credits at the 300 level and 3 credits at the 400 level at Slippery Rock University.

## Requirements for a Minor in Communication - Credits: 21

Students planning to minor in communication are required to take 21 credits of communication coursework, excluding COMM 200.

## Required Core

- COMM 110 - Communication Concepts Credits: 3
- COMM 310 - Communication Research Methods Credits: 3
- COMM 410 - Communication Law Credits: 3

## Electives - Credits: 12

Three must be at the 300/400 level, and three must be at the 400 level.

## Footnote

\* In place of COMM 310, students may substitute one of the following courses:

- HIST 205 - The Historian's Craft Credits: 3
- HLTH 406 - Program Planning and Evaluation Credits: 3
- MRKT 430 - Marketing Research Credits: 3
- POLS 310 - Research Methods Credits: 3
- PSYC 221 - Introduction to Behavioral Statistics Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SOWK 318 - Research Methods Credits: 3
- SPMT 499 - Sport Management Research Methods Credits: 3

## Internship:

Only 3 credits may be counted toward the minor.

# Minor in Communication - Graphic Design Track for Art Majors

Communication Department

21 Credits

## Required Communication Courses - 21 Hours

- COMM 110 - Communication Concepts Credits: 3
- COMM 232 - Publication Production Credits: 3
- COMM 258 - Interactive Multimedia 2 Credits: 3
- COMM 334 - Publication Production 2 Credits: 3
- COMM 453 - Media Project Management Credits: 3
- COMM 359 - Interactive Multimedia 3 Credits: 3
- COMM 410 - Communication Law Credits: 3

## Computer Science

275 Advanced Technology and Science Hall  
724-738-2040

Computer Science Department

**Chair**

Beverly Gocal

**Assistant Chairperson**

Deborah Whitfield

**Secretary**

Vicki Sparano

**Faculty**

Michael Conlon, David Dailey, Adel Fergany, Beverly Gocal, Maria Harrington, Frank Hulick, Sharadchandra Joshi, Stephen Larson, Paul Mullins, Sam Thangiah, David Valentine, Hongbo Zhou

The mission of the Department of Computer Science is to provide a broad-based coverage of the Computer Science curriculum to prepare its majors for careers in a technical setting, to provide thorough instruction of the Information Systems curriculum while students specialize in fields of their choosing, and to provide intensive instruction for students aiming to pursue graduate studies in either Computer Science or Information Sciences.

The Department will actively support the University and the College's efforts to achieve the institution's various goals of providing broad education, fulfilling its commitments to the community it serves, engaging in multidimensional evaluations and assessments, and ensuring the institution's continued vitality.

The Department will accomplish its mission in an environment that will promote close and lasting relationships among students and faculty.

The Department of Computer Science offers majors and minors in three programs. Each major prepares the student for challenging careers in computing. Moreover, each major is flexible enough to allow a wide selection of other courses from the Department of Computer Science or other departments within the University. With proper planning and selection of appropriate minor or individual courses the student majoring in any one of the three programs will be able to meet his/her academic goal in four years.

## **Computer Science (BS)**

Computer Science Department

The major in computer science emphasizes modern approaches to software and hardware development and requires mastery of abstract concepts. Theoretical subjects are included for essential conceptual foundations along with practical applications of theory. Computer science majors are offered an entrance to all facets of the dynamic computer field. This degree offers solid preparation for graduate study in computer science or applied areas involving computing.

SRU Computer Science is accredited by the Computing Accreditation Commission of ABET, 111 Market Place Suite 1050, Baltimore, MD 21202, (410) 347-7700.

Graduation requirements for all students pursuing the bachelor of science degree with the major of computer science include a minimum 2.000 quality point average in courses taken at Slippery Rock University that will fulfill the major requirements stated below under Required Courses and Required Electives, and a minimum 2.000 quality point average in all course-work completed at Slippery Rock University.

For transfer students to earn the bachelor of science degree with a major in computer science, the required course work for the major must include a minimum of six computer science courses (18 credits) at the 200 level or above, at least two of which must be at the 400 level, and completed at Slippery Rock University.

*New* Concentration in BioInformatics - Computer Science is available as an *optional* component to the B.S. Computer Science.

## Requirements for the Major

### Required Computer Science Courses - Credits: 31

- CPSC 146 - Programming Principles Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 370 - Computer Organization & Architecture Credits: 3
- CPSC 374 - Algorithms and Data Structures Credits: 3
- CPSC 376 - Programming Languages Credits: 3
- CPSC 378 - Theory of Computation Credits: 3
- CPSC 423 - Computer Networks Credits: 3
- CPSC 464 - Principles of Concurrent Programming and Operating Systems Credits: 3
- CPSC 474 - Advanced Architecture & Parallel Computing Credits: 3
- CPSC 488 - Software Engineering Credits: 3

### Required Electives - Credits: 9

Maximum of 3 credits from CPSC 217 and CPSC 236.

Maximum of 3 credits from CPSC 450.

Two of:

- CPSC 217 - Structured and Dynamic Web Programming Credits: 3
- OR
- CPSC 236 - Selected Computer Languages Credits: 3
- CPSC 317 - Scripting Languages Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 327 - Administration and Security Credits: 3
- CPSC 333 - Introduction to Computer Forensics Credits: 3
- CPSC 450 - Internship Credits: Up to 12

One of:

- CPSC 358 - Simulation Credits: 3
- CPSC 456 - Introduction to Computer Graphics Credits: 3
- CPSC 466 - Compiler Design and Implementation Credits: 3
- CPSC 476 - Artificial Intelligence Credits: 3
- CPSC 478 - Analysis of Algorithms Credits: 3
- CPSC 480 - Machine Learning and BioInformatics Credits: 3
- CPSC 498 - Selected Topics Credits: 1 to 3

## Required Mathematics Courses - Credits: 15

*Taking MATH131 will require an additional math course to bring this block up to 15 credits. Recommended courses are MATH231, 235, or 240.*

- MATH 152 - Elementary Statistics I Credits: 3  
OR
- ECON 219 - Business Statistics Credits: 3  
OR
- MGMT 219 - Business Statistics Credits: 3
- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4
- MATH 131 - Discrete Mathematics Credits: 3  
OR
- CPSC 311 - Discrete Computational Structures Credits: 4

## Required Science Courses - Credits: 7-8

Choose a two course sequence in Chemistry, Biology, Physics or Environmental Geoscience. See Major Curriculum Guide for course selections.

## Additional Mathematics or Science Courses

Select additional Mathematics or Science courses to total 30 credits of combined Math/Science courses. See Major Curriculum Guide for course selections.

## Concentration in BioInformatics - Computer Science

Advances in genetics and molecular biology, and the impetus of the genome project, has generated a need for using computational sciences to understand biochemical processes. The proposed concentration is to prepare students in the interdisciplinary area of BioInformatics consisting of coursework from biology, computer science, chemistry and mathematics. The concentration in BioInformatics will allow students to either obtain jobs or pursue graduate school in the areas of bioinformatics, cellular and systems biology, genomics and proteomics, molecular structural biology, biochemistry, drug discovery, drug design, protein structure, gene finding and genome assembly to name a few.

- BIOL 250 - Genetics Credits: 4
- BIOL 325 - Biometry / Lab Credits: 3
- BIOL 335 - Cell Biology Credits: 3
- BIOL 370 - Molecular Biology Credits: 3
- CHEM 201 - Organic Chemistry I Credits: 3

## Information Systems (BS)

Computer Science Department

The major in information systems emphasizes applying computer technology to one of a choice of business fields. Courses cover fundamentals of information technology and programming skills to provide a foundation of essential conceptual knowledge and practical experience. The information systems major consists of a cluster of computer science courses, a cluster of mathematics courses, and a choice of one of the allied areas of specialization.

SRU Information Systems is accredited by the Computing Accreditation Commission of ABET, 111 Market Place Suite 1050, Baltimore, MD 21202, (410) 347-7700.

To graduate with the bachelor of science degree in information systems, the student must earn at least a 2.000 quality point average in courses in the major, and at least a 2.000 quality point average over all courses. The courses listed below as Other Required Courses are not included in the major quality point average. Courses taken elsewhere than Slippery Rock University are not counted in either quality point average.

**Note:** For transfer students to earn the bachelor of science degree with a major in information systems, the required course work for the major must include a minimum of three computer science courses (9 credits) at the 200-level or above, at least two of which must be at the 300 level or above, and completed at Slippery Rock University.

## Requirements for the Major

### Required Computer Science Courses - Credits: 24

- CPSC 130 - Introduction to Programming and Information Systems Credits: 3
- CPSC 146 - Programming Principles Credits: 3
- CPSC 210 - Productivity Software Credits: 3
- CPSC 300 - Challenges of Computer Technology Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 353 - Business Data Communications & Technology Credits: 3
- CPSC 413 - Systems Analysis Credits: 3
- CPSC 443 - Software Project Management Credits: 3

### Required Mathematics - Credits: 6-7

- ECON 219 - Business Statistics Credits: 3

- OR
- MGMT 219 - Business Statistics Credits: 3
- CPSC 311 - Discrete Computational Structures Credits: 4
- OR
- MATH 123 - Introduction to Applied Calculus Credits: 3
- OR
- MATH 225 - Calculus I Credits: 4

## Required Business Environment Courses - Credits: 12

- ACCT 209 - Financial Accounting Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- OR
- ECON 202 - Principles of Microeconomics Credits: 3
- CPSC 365 - Management Information Systems Credits: 3
- OR
- MGMT 365 - Management Information Systems Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3

## Required Electives - Credits: 6

Choose any 2 upper division courses from a single area in the School of Business. See Major Curriculum Guide for course selections.

## Area of Interest Electives - Credits: 9-10

See your department chairperson or academic adviser for course selection. Areas of interest include: Business, Geographic Information Systems, Health Services Administration, Programming, Safety, Security, and Web Technologies.

## Information Technology (BS)

Computer Science Department

The Information Technology (IT) program provides students with an opportunity to examine information gathering, retrieval, management, and storage capabilities with respect to information technology. The program also provides students with tools and techniques needed for creating and maintaining highly interactive computer systems while strengthening the student's problem solving and critical thinking abilities. The scope of the program includes decision making, social and ethical professionalism, information management, incorporation of audio and video into software applications, computer networking, and system administration. Graduates of this program will possess technical abilities to maintain computing systems that are used not only by programmers and database managers, but also remotely by employees and often customers.

SRU Information Technology is accredited by the Computing Accreditation Commission of ABET.

Graduation requirements for all students pursuing the bachelor of science degree with the major of information technology include a minimum of 2.000 quality point average in courses taken at Slippery Rock University that will

fulfill the major requirements stated below under Required Courses and Required Electives, and a minimum 2.000 quality point average in all coursework completed at the university.

For transfer students to earn the bachelor of science degree with a major in information technology, the required coursework must include a minimum of four computer science courses (12 credits), at least two of which must be numbered 400 or above, completed at Slippery Rock University.

## Requirements for the Major - Credits: 58

### Required Courses - Credits: 46

- ART 114 - Basic Studio Digital Media Credits: 3
- CPSC 130 - Introduction to Programming and Information Systems Credits: 3
- CPSC 146 - Programming Principles Credits: 3
- CPSC 207 - Shell Commands and Scripting Credits: 3
- CPSC 217 - Structured and Dynamic Web Programming Credits: 3
- CPSC 300 - Challenges of Computer Technology Credits: 3
- CPSC 311 - Discrete Computational Structures Credits: 4
- CPSC 317 - Scripting Languages Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 327 - Administration and Security Credits: 3
- CPSC 337 - Introduction to Web Graphics Credits: 3
- CPSC 413 - Systems Analysis Credits: 3
- CPSC 423 - Computer Networks Credits: 3
- CPSC 427 - Interface Design Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- OR
- ECON 219 - Business Statistics Credits: 3

### Electives - Credits: 6

Select 2 courses from one of the following areas:

#### Art:

- ART 214 - Art Synthesis Digital Media Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3

#### Management:

- MGMT 351 - Organizational Behavior Credits: 3  
Any MGMT course numbered 300 or above

#### Marketing:



- MRKT 330 - Principles of Marketing Credits: 3  
Any MKTG course numbered 300 or above and

## Select 2 Courses

1 must be numbered 300 or above:

- ART 214 - Art Synthesis Digital Media Credits: 3
- COMM 201 - Digital Imaging 1 Credits: 3
- COMM 254 - Video Production Credits: 3
- COMM 258 - Interactive Multimedia 2 Credits: 3
- COMM 359 - Interactive Multimedia 3 Credits: 3
- CPSC 236 - Selected Computer Languages Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 301 - Practical Computer Security Credits: 3
- CPSC 333 - Introduction to Computer Forensics Credits: 3
- CPSC 343 - File Processing Credits: 3
- CPSC 417 - Advanced Web Technologies Credits: 3
- CPSC 443 - Software Project Management Credits: 3
- CPSC 450 - Internship Credits: Up to 12

## Minor in Computer Science

Computer Science Department

For transfer students to earn a minor in computer science, the required course work for the minor must include a minimum of four computer science courses (12 credits) at the 200 level or above, at least two of which must be at the 400 level and completed at Slippery Rock University.

### Requirements for the Minor in Computer Science - Credits: 19

Minor in computer science requires a minimum 2.000 quality point average in computer science courses completed at Slippery Rock University to fulfill course requirements of the minor.

### Required Courses

- CPSC 146 - Programming Principles Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 374 - Algorithms and Data Structures Credits: 3
- CPSC 376 - Programming Languages Credits: 3

### Two Courses (6 Credits) from the Following:

At least one of the courses taken must be a 300 or 400 level.

- CPSC 217 - Structured and Dynamic Web Programming Credits: 3

- CPSC 236 - Selected Computer Languages Credits: 3
- CPSC 317 - Scripting Languages Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 337 - Introduction to Web Graphics Credits: 3
- CPSC 358 - Simulation Credits: 3
- CPSC 370 - Computer Organization & Architecture Credits: 3
- CPSC 378 - Theory of Computation Credits: 3
- CPSC 423 - Computer Networks Credits: 3
- CPSC 450 - Internship Credits: Up to 12  
Maximum of three credits in CPSC 450 permitted.
- CPSC 456 - Introduction to Computer Graphics Credits: 3
- CPSC 464 - Principles of Concurrent Programming and Operating Systems Credits: 3
- CPSC 466 - Compiler Design and Implementation Credits: 3
- CPSC 474 - Advanced Architecture & Parallel Computing Credits: 3
- CPSC 476 - Artificial Intelligence Credits: 3
- CPSC 478 - Analysis of Algorithms Credits: 3
- CPSC 480 - Machine Learning and BioInformatics Credits: 3
- CPSC 488 - Software Engineering Credits: 3
- CPSC 498 - Selected Topics Credits: 1 to 3

## Minor in Information Systems

Computer Science Department

### Requirements for the Minor in Information Systems - Credits: 24

The overall GPA for all courses taken in the minor must be at least 2.00.

A student cannot major and minor in the same discipline/academic area, but may minor in a specialization offered by his/her major department. A minimum of three courses in the minor must be upper division (300 or higher).

The Information Systems minor must submit a self-maintained progress sheet to the Computer Science Department for verification.

### Required Courses - Credits: 15

- COMM 215 - Small Group Communication Credits: 3  
OR
- COMM 318 - Professional Presentation Credits: 3
- CPSC 130 - Introduction to Programming and Information Systems Credits: 3  
OR
- CPSC 140 - Introduction to Programming Credits: 3  
OR
- CPSC 146 - Programming Principles Credits: 3
- CPSC 210 - Productivity Software Credits: 3
- CPSC 300 - Challenges of Computer Technology Credits: 3  
OR
- CPSC 305 - Introduction to Expert Systems Credits: 3

- OR
- CPSC 333 - Introduction to Computer Forensics Credits: 3
- OR
- COMM 480 - The Communication Age Credits: 3
- OR
- CPSC 353 - Business Data Communications & Technology Credits: 3
- CPSC 323 - Data Base Systems Credits: 3

## Specialization Areas - Credits: 9

Choose one of the following groups:

### Group A: Business Specialization

- ACCT 330 - Accounting Information Systems Credits: 3
- OR
- CPSC 365 - Management Information Systems Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- ACCT 209 - Financial Accounting Credits: 3

### Group B: Health Specialization

- CPSC 365 - Management Information Systems Credits: 3
- HSA 231 - The US Healthcare System Credits: 3
- HSA 436 - Technology in Health Care Credits: 3

### Group C: Safety Specialization

- SAFE 338 - Ergonomics and Human Factors Credits: 3
- SAFE 418 - Security in the Workplace Credits: 3
- CPSC 365 - Management Information Systems Credits: 3
- OR
- MGMT 354 - Human Resources Management Credits: 3

### Group D: Geographic Information Technology

- GES 315 - Cartography I Credits: 3
- GES 325 - Introduction to Geographic Information Science Credits: 3
- GES 425 - Advanced Geographic Information Systems Credits: 3
- OR
- CPSC 365 - Management Information Systems Credits: 3

## Minor in Information Technology

Computer Science Department

Minor in information technology requires a minimum 2.000 quality point average in the courses completed at Slippery Rock University to fulfill course requirements of the minor.

A minimum of nine credits must be upper division (numbered 300 or above). At least 4 credits must be outside the student's major area requirements or electives counted toward the student's major.

For transfer students to earn a minor in information technology, the required course work for the minor must include a minimum of four courses (12 credits) completed at Slippery Rock University. Of these four courses at least two must be in computer science one of which must be at 300-level or higher.

## Requirements for the Minor in Information Technology - Credits: 24

Minor in information technology requires a minimum 2.000 quality point average in the courses completed at Slippery Rock University to fulfill course requirements of the minor.

### Required Courses:

- CPSC 130 - Introduction to Programming and Information Systems Credits: 3
- CPSC 140 - Introduction to Programming Credits: 3
- OR
- CPSC 146 - Programming Principles Credits: 3
- CPSC 207 - Shell Commands and Scripting Credits: 3
- CPSC 217 - Structured and Dynamic Web Programming Credits: 3
- CPSC 317 - Scripting Languages Credits: 3

### Two Courses - Credits: 6

- CPSC 300 - Challenges of Computer Technology Credits: 3
- CPSC 327 - Administration and Security Credits: 3
- CPSC 333 - Introduction to Computer Forensics Credits: 3
- CPSC 337 - Introduction to Web Graphics Credits: 3
- CPSC 413 - Systems Analysis Credits: 3
- CPSC 417 - Advanced Web Technologies Credits: 3
- CPSC 423 - Computer Networks Credits: 3
- CPSC 427 - Interface Design Credits: 3
- CPSC 443 - Software Project Management Credits: 3
- CPSC 450 - Internship Credits: Up to 12

### One Additional Course

3 Credits from:

- ART 214 - Art Synthesis Digital Media Credits: 3
- COMM 201 - Digital Imaging 1 Credits: 3
- COMM 254 - Video Production Credits: 3
- COMM 258 - Interactive Multimedia 2 Credits: 3
- COMM 350 - Editing for Video Credits: 3

- COMM 359 - Interactive Multimedia 3 Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 300 - Challenges of Computer Technology Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 327 - Administration and Security Credits: 3
- CPSC 333 - Introduction to Computer Forensics Credits: 3
- CPSC 337 - Introduction to Web Graphics Credits: 3
- CPSC 343 - File Processing Credits: 3
- CPSC 413 - Systems Analysis Credits: 3
- CPSC 417 - Advanced Web Technologies Credits: 3
- CPSC 423 - Computer Networks Credits: 3
- CPSC 427 - Interface Design Credits: 3
- CPSC 450 - Internship Credits: Up to 12
- ECON 219 - Business Statistics Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## **Criminology and Criminal Justice**

Criminology and Criminal Justice

004 Spotts World Culture Building  
724-738-2084

### **Chair**

Patrick Harvey

### **Secretary**

Kathleen Dombeck

### **Faculty**

David Champion, Richard Gigliotti, Katherine Hardesty, Patrick Harvey, Sarah Kuehn, D. Neil McEwen, Jon McLister, Youngyol Yim Schanz, Rebecca Schnupp

The Department of Criminology and Criminal Justice is dedicated to the education of its students through development of critical thinking skills, deeper understanding of the diversity of society, and the advancement of ethical thought and practices in the pursuit of criminal and social justice.

The BA in Criminology and Criminal Justice provides a foundation of knowledge for students interested in a variety of careers both in and out of the formal justice system. This degree program covers criminological theory, policing, courts and adjudication, corrections, research methodology, justice administration and special topics of criminal justice. The BA in Criminology and Criminal Justice prepares students for careers in law enforcement, corrections, juvenile casework, probation, parole, and other careers in the criminal justice system. It also provides a foundation for students who wish to pursue advanced degrees in the study of criminology and justice studies.

All students entering the Criminology major, effective Fall of 2012, must maintain an overall GPA of 2.5 and a Major GPA of 2.5, in order to graduate with a Bachelor of Arts degree in Criminology. All change of major or readmit students must have an overall GPA of 2.5 before being admitted to the Criminology major. All transfer students will have until their 2nd semester to meet the Criminology major minimum GPA standard of 2.5.

Any student who has failed to maintain academic (GPA) standards will be permitted a one semester probationary term to re-establish good standing. If any student fails to meet the major GPA standard of 2.5 for 2 consecutive terms, they will automatically be dropped from the Criminology major and referred to Academic Services for advisement.

## **Community Corrections (Optional Specialization for Criminology and Criminal Justice majors)**

Criminology and Criminal Justice Department

Optional Specialization: This specialization is not part of the above major core/cognates. This specialization can be taken as part of the free electives component for interested Criminology majors.

### **Required Courses - 15 credits**

- CRIM 321 - Criminal Justice interventions 1 Credits: 3
- CRIM 322 - Criminal Justice Interventions 2 Credits: 3
- CRIM 416 - Community Corrections Credits: 3
- PSYC 276 - Introduction to Abnormal Psychology Credits: 3  
Or SOWK334, Theoretical Perspectives on Mental Dysfunction
- PSYC 321 - Drugs and Behavior Credits: 3

## **Criminology and Criminal Justice (BA)**

Criminology and Criminal Justice Department

The BA in Criminology and Criminal Justice provides a foundation of knowledge for students interested in a variety of careers both in and out of the formal justice system. This degree program covers criminological theory, policing, courts and adjudication, corrections, research methodology, justice administration and special topics of criminal justice. The BA in Criminology and Criminal Justice prepares students for careers in law enforcement, corrections, juvenile casework, probation, parole, and other careers in the criminal justice system. It also provides a foundation for students who wish to pursue advanced degrees in the study of criminology and justice studies.

All students entering the Criminology major, effective Fall 2012, must maintain an overall GPA of 2.5 and a major GPA of 2.5, in order to graduate with a Bachelor of Arts Degree in Criminology. All change of major or readmit students must have an overall GPA of 2.5 before being admitted to the Criminology major. All transfer students will have until their second semester to meet the Criminology major minimum GPA standard of 2.5. Any student who has failed to maintain academic (GPA) standards will be permitted a one-semester probationary term to re-establish good standing.

### **Requirements for the Major**

#### **Core Courses - Credits: 33**

- CRIM 105 - Human Diversity Credits: 3  
**OR**
- SOWK 107 - Cultural Competency and Human Services Credits: 3

- CRIM 110 - Introduction to Criminology and Criminal Justice Systems Credits: 3
- CRIM 115 - Proseminar Credits: 3
- CRIM 253 - American Policing Credits: 3
- CRIM 263 - Introduction to Criminal Procedure Credits: 3
- CRIM 273 - American Corrections Credits: 3
- CRIM 301 - Theoretical Criminology Credits: 3
- CRIM 317 - Statistical Methods Credits: 3
- CRIM 318 - Research Methods Credits: 3
- CRIM 345 - Juvenile Delinquency Credits: 3
- CRIM 408 - Capstone: Ethics and Criminal Justice Credits: 3

## Major Electives - Credits: 6

Choose 6 credits from the following courses.

- CRIM 190 - Experimental Credits: 3
- CRIM 198 - Selected Topic Credits: 3
- CRIM 290 - Experimental Credits: 3
- CRIM 298 - Selected Topic Credits: 3
- CRIM 321 - Criminal Justice interventions 1 Credits: 3
- CRIM 322 - Criminal Justice Interventions 2 Credits: 3
- CRIM 343 - Criminal Investigations Credits: 3
- CRIM 360 - Police and Society Credits: 3
- CRIM 380 - Women & the Criminal Justice System Credits: 3
- CRIM 390 - Experimental Credits: 3
- CRIM 398 - Selected Topic Credits: 3
- CRIM 404 - Adjudication in Crime and Justice Credits: 3
- CRIM 405 - White Collar Crime Credits: 3
- CRIM 414 - Criminal Justice Policy Credits: 3
- CRIM 416 - Community Corrections Credits: 3
- CRIM 450 - Internship Credits: Up to 12
- CRIM 490 - Independent Study Credits: 3
- CRIM 498 - Selected Topics Credits: 1 to 3
- SOWK 334 - Clinical Perspectives on DSM Diagnoses Credits: 3

## Community Corrections Specialization - 15 credits

Optional Specialization: This specialization is not part of the above major core/cognates. This specialization can be taken as part of the free electives component for Criminology majors.

- CRIM 321 - Criminal Justice interventions 1 Credits: 3
- CRIM 322 - Criminal Justice Interventions 2 Credits: 3
- CRIM 416 - Community Corrections Credits: 3
- PSYC 276 - Introduction to Abnormal Psychology Credits: 3
- OR**
- SOWK 334 - Clinical Perspectives on DSM Diagnoses Credits: 3
- PSYC 321 - Drugs and Behavior Credits: 3

# Minor in Criminology

Criminology and Criminal Justice Department

## Requirements for the Minor - Credits: 18

### Required Courses - Credits: 12

- CRIM 110 - Introduction to Criminology and Criminal Justice Systems Credits: 3
- CRIM 253 - American Policing Credits: 3
- OR
- CRIM 263 - Introduction to Criminal Procedure Credits: 3
- OR
- CRIM 273 - American Corrections Credits: 3
- CRIM 301 - Theoretical Criminology Credits: 3
- CRIM 345 - Juvenile Delinquency Credits: 3

### Electives - Credits: 6

Choose 2 courses from the following:

- CRIM 317 - Statistical Methods Credits: 3
- CRIM 318 - Research Methods Credits: 3
- CRIM 321 - Criminal Justice interventions 1 Credits: 3
- CRIM 322 - Criminal Justice Interventions 2 Credits: 3
- CRIM 343 - Criminal Investigations Credits: 3
- CRIM 360 - Police and Society Credits: 3
- CRIM 380 - Women & the Criminal Justice System Credits: 3
- CRIM 390 - Experimental Credits: 3
- CRIM 398 - Selected Topic Credits: 3
- CRIM 404 - Adjudication in Crime and Justice Credits: 3
- CRIM 405 - White Collar Crime Credits: 3
- CRIM 408 - Capstone: Ethics and Criminal Justice Credits: 3
- CRIM 414 - Criminal Justice Policy Credits: 3
- CRIM 416 - Community Corrections Credits: 3
- CRIM 450 - Internship Credits: Up to 12
- CRIM 490 - Independent Study Credits: 3
- CRIM 498 - Selected Topics Credits: 1 to 3

# Military Science (Army ROTC)

101 Strain Behavioral Science Building  
724-738-2019

Military Science Department



**Chair**

LTC Joseph Alessi

**Secretary**

Jennifer Cornelius

**Faculty**

MAJ Richard G. Coleman, Jr.

MSG John Cutter

TBA

SFC David Ferricks

In 1981, Slippery Rock University was authorized as a Senior Reserve Officer's Training Corps (ROTC) unit. The Army ROTC program offers to both men and women the opportunity to learn and practice leadership and managerial techniques; to obtain credits, which count toward graduation; and to earn a commission as a Second Lieutenant in the U.S. Army upon completion of the program.

What is Army ROTC? It is a program that offers students the opportunity to graduate as officers and serve in the U.S. Army, the Army National Guard, or the U.S. Army Reserve.

## **Army ROTC**

## **Army ROTC**

## **The Four-Year Program:**

The four-year program is divided into two parts: the Basic Course and the Advanced Course.

The Basic Course is usually taken during the first two years of college and covers such subjects as customs, traditions and organizations of the service, national defense, military history, and leadership development. In addition, a variety of outside social and professional enrichment activities are available. All necessary ROTC textbooks, uniforms, and other essential materials for the Basic Course are furnished at no cost. After completion of the Basic Course, students who have demonstrated the potential to become an officer and who have met the physical and scholastic standards are eligible to enroll in the Advanced Course. (Note: There is no military service obligation associated with taking any Basic Course electives. All electives earn academic credit.)

### **Military Science**

#### **Freshman Year - Total Hours: 6**

- MS 100 - The American Military Experience Credits: 3
- MS 102 - Principles of Leadership Credits: 3

#### **Sophomore Year - Total Hours: 6**

- MS 201 - Basic Military Skills Credits: 3
- MS 202 - Intermediate Military Skills Credits: 3

### Junior Year - Total Hours: 8

- MS 301 - Fundamentals of Tactical Operations Credits: 4
- MS 302 - Advanced Military Skills Credits: 4

### Senior Year - Total Hours: 8

- MS 401 - Leadership Dimensions and Concepts Credits: 4
- MS 402 - Officership and the Profession of Arms Credits: 4

### Required Course (Any Year)

- HIST 304 - American Military History Credits: 3

### The Two-Year Program:

The two-year program is designed for junior students and community college graduates, students at four-year colleges who did not take ROTC during their first two years of school, or students entering a two-year post-baccalaureate or graduate course of study.

To enter the two-year program, students must first attend a fully-paid five-week Leadership Training Course (LTC), normally held during the summer between the sophomore and junior years of college. At LTC, students learn to challenge themselves physically and mentally, and to build their confidence and self-respect.

After they have successfully completed LTC, students who meet all necessary enrollment requirements may enroll in the Advanced Course.

Students who have attended basic training/AIT also qualify for the two-year program.

### Army ROTC Scholarship/Financial Assistance

Army ROTC offers two-year, three-year, and four-year scholarships on a competitive basis to the most outstanding students who apply. Three and two-year scholarships are awarded to students already enrolled in college. Students who attend the LTC in the two-year program may compete for two-year scholarships.

Each scholarship pays for college tuition and required educational fees and provides a specified amount for textbooks. Each scholarship also includes subsistence allowance of \$3,500-\$5,000 for every year the scholarship is in effect.

All cadets in the Advanced Course receive a subsistence allowance of \$4,500-\$5,000 for each of the two years (This is not in addition to the subsistence allowance provided to scholarship recipients), as well as pay for attending the five-week Leadership Development and Assessment Course during the summer between their Junior and Senior years.

### The Simultaneous Membership Program

Students who have not been awarded an ROTC scholarship can get a head start on their military careers and their future through the Simultaneous Membership Program (SMP). This program allows students to be members of the Army National Guard or the Army Reserve and Army ROTC at the same time.

SMP students are paid at the rate of at least a Sergeant (E-5) for their guard or reserve training assemblies, plus the aforementioned allowance from the ROTC Advanced Course. SMP students may also be eligible for additional federal and state educational benefits. They serve as officer trainees in their guard or reserve units and, under the close supervision of a commissioned officer, perform duties commensurate with those of a Second Lieutenant.

Cadets who successfully complete the SMP program graduate with a commission as a Second Lieutenant. Once commissioned, they may continue to serve in their Army National Guard or Army Reserve units, or they may apply for active duty in the U.S. Army.

Students can be in the SMP program all four years at college. They will be paid at the rate of Sergeant for only the final three years.

## Requirements for Enrollment

The general requirements for enrollment in Army ROTC stipulate that students be accepted as a regularly enrolled university student and be a citizen of the United States. Veterans and JROTC graduates may receive exemptions from the basic course as approved by the Professor of Military Science (PMS). For continuation in ROTC during the junior and senior years, students must have a 2.500 grade point average in their academic area, have successfully completed requirements for the Basic Course, pass a physical examination, and be accepted by the PMS. Advanced Course students must agree in writing to complete the junior and senior years.

## Professional Studies

### **Professional Studies**

*Empowering Futures*

107 Spotts World Culture  
724-738-4192

### **Chair**

Armand Policicchio

### **Secretary**

Pam Evans

### **Faculty**

John Bavaro, Aksel Casson, Alice DelVecchio, Richelle Dykstra, Ahmad Khalili, Susan Lubinski, Larry McCarthy, Armand Policicchio, Lori Zulauf

Welcome to the home page of the Department of Professional Studies! Here you can learn about some of the exciting, innovative, flexible degree offerings in our department. Our majors and minors are a creative mix of interdisciplinary based liberal arts programs of study and career oriented professional and pre-professional programs. You can **create** a program by designing, with your adviser, a program of studies that is unique and meets your interests and goals of you cannot find your spot among SRU's extensive degree offerings. You can take advantage of our degree **completion** program if you find that you cannot finish in your current major. You can take advantage of a number of our academic programs of study that are already designed that will allow you to **continue** into a career or onto a graduate or professional program. We offer minors in a number of exciting areas and you can even use our programs as a second major. Here is a list of what you can study in the Department of Professional Studies:

- BS in Health Services Administration
- BS in Professional Studies
  - Self Designed Program of Study
  - Degree Completion
  - Pre-Designed Program of Study
    - Sociology
    - Anthropology
    - Asian Studies
    - Non-Profit Leadership
    - Fraud
    - Pre-Professional Program of Study
      - Pre-Law
      - Other Pre-Professional Programs based upon student interest
- Minors
  - Sociology
  - Anthropology
  - Non-Profit Leadership
  - Leadership
- Second Major Option

The department also has a number of exciting extracurricular experiences for students. Most of our programs have strong, active student organizations, such as Future Healthcare Leaders for students in the BS Health Services Administration, Student Non-Profit Alliance for students in the Non-Profit Leadership Program, Asia Club for the Asian Studies Program in addition to others. There are student honorary societies in the department and there are student service opportunities. Students have opportunities for international travel with department faculty. We have been to London, Poland, St. Lucia, and Prague. In the future we are planning trips to Turkey and the Netherlands. Students attend national conferences and have also presented along with faculty at conferences. Students completing the Non-Profit minor are also eligible to pursue the Certified Nonprofit Professional status through the National Nonprofit Leadership Alliance, the nation's only certifier of entry-level nonprofit professionals. There are lots of things to do here!. Contact us for additional information.

## Health Services Administration (BS)

### Department of Professional Studies

A student pursuing a bachelor of science degree can choose to major in Health Services Administration. The Health Services Administration program prepares students to assume entry-level positions within a dynamic healthcare environment. It accomplishes this by providing an excellent foundation of relative coursework, structured extracurricular learning experiences, and a supervised internship.

Our students and graduates are prepared to assume a variety of employment opportunities within the healthcare field. Some examples of these opportunities include areas such as: hospitals, nursing homes, managed care companies, group practices, government agencies, health insurance companies, pharmaceutical companies, primary care centers, healthcare technology companies, retirement villages, medical supply companies, adult day care centers, senior centers, rehabilitation and specialty hospitals, and more. They are also prepared to enter highly selective and professional graduate studies.

The Future Healthcare Leaders of SRU is the student organization for Health Services Administration majors. It is affiliated with the national association known as the American College of Healthcare Executives. Students are encouraged to become active members of this association, as well as the American College of Healthcare Executives

and other professional organizations to help them advance their personal and academic goals, gain experience, and improve job prospects. Invaluable opportunities are developed when students become members of these organizations. As members, students are socialized into the profession. In addition, student membership serves as an excellent opportunity to network with administrators and other professionals in the growing field of healthcare. The FHL organization is involved in providing many interesting local, regional, and national activities and events, such as field trips, an annual national conference held in Chicago, as well as other opportunities for networking, internships, summer, jobs, and service-related activities. You can visit their web site at: <http://sru.collegiatelink.net>. (You may need to type "Future Healthcare Leaders" in the search engine to access the full link.

Health Services Administration students who maintain a 2.5 GPA overall and in the major participate in a 12-week full-time administrative internship during the summer of their senior year. The internship is the capstone course that provides a linkage between the knowledge and theory obtained throughout the curriculum and the actual work environment. SRU students have been given excellent recommendations for graduate programs and employment following internships. In addition, many students have been offered employment as a result of their excellent performance during the internship.

## Required Courses - Credits: 60

### Health Services Administration Core - Credits: 30

- HSA 231 - The US Healthcare System Credits: 3
- HSA 332 - Health Services Planning and Evaluation Credits: 3
- HSA 335 - Current Topics in Health Care Credits: 3
- HSA 436 - Technology in Health Care Credits: 3
- HSA 437 - Financial Management of Healthcare Organizations Credits: 3
- HSA 439 - The Accreditation and Survey Process Credits: 3
- HSA 450 - Internship in Health Services Administration Credits: 12

### Other Required Courses - Credits: 30

- ACCT 340 - Legal Environment of Business I Credits: 3
- COMM 231 - Introduction to Public Relations Credits: 3
- CPSC 210 - Productivity Software Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- ECON 219 - Business Statistics Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 354 - Human Resources Management Credits: 3  
OR MGMT 451 - Employment Law
- MGMT 451 - Employment Law Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3
- MATH 113 - Mathematics as a Liberal Art Credits: 3  
or any higher level math course
- PROF 205 - Accounting for Decision Makers Credits: 3

## Minor in Anthropology

Department of Professional Studies

## Requirements for the Minor in Anthropology - Credits: 18

- PROF 202 - Introduction to Anthropology Credits: 3
- PROF 211 - Physical Anthropology Credits: 3
- PROF 212 - Archaeology/World Prehistory Credits: 3
- PROF 319 - Anthropology Methods Credits: 3
- PROF 401 - Applied Anthropology Credits: 3

### And One of the Following:

- GES 303 - Asia Credits: 3
- GES 308 - Europe Credits: 3
- GES 309 - Africa Credits: 3
- PROF 310 - Cultural Area Studies Credits: 3

## Minor in General Sociology - Credits: 18

Department of Professional Studies

## Requirements for the Minor - Credits: 18

### Core Courses - Credits: 12

- PROF 201 - Principles of Sociology Credits: 3
- PROF 106 - Race and Ethnic Diversity in the USA Credits: 3
- PROF 304 - Urban Sociology Credits: 3
- PROF 317 - Statistics for the Social Sciences Credits: 3

### Electives - Credits: 6

Select any two courses from the list below:

- PROF 226 - Population and Society Credits: 3
- PROF 309 - Health and Society Credits: 3
- PROF 321 - Minority Groups Credits: 3
- PROF 324 - The Family Credits: 3
- PROF 339 - Gender Roles and Society Credits: 3

## Minor in Leadership

As an outcomes based minor, the listing provided is indicative and not exhaustive. Overall selection of appropriate courses should be taken as a whole and carefully reviewed to meet the outcomes of the Leadership minor. As such, some courses may be appropriate in multiple components; however, no course may be used to satisfy more than one component of the minor.

## Leadership Theory: 9 credits

## Leadership Principles: 3 credits

Select either: a course from below OR a departmental approved equivalent

- MGMT 341 - Organizational Leadership Credits: 3
- PREE 211 - Outdoor Leadership Credits: 3
- PROF 220 - Introduction to Nonprofit Leadership Credits: 3
- PROF 250 - Introduction to Institutions and Leadership Credits: 3
- MS 102 - Principles of Leadership Credits: 3

## Leadership Skills: 6 credits

Select two courses from two different skills; or departmental approved equivalents

### Communication

- COMM 110 - Communication Concepts Credits: 3
- COMM 215 - Small Group Communication Credits: 3
- COMM 314 - Interpersonal Communication Credits: 3
- COMM 315 - Organizational Communication Credits: 3
- COMM 413 - Communication Theory Credits: 3
- COMM 415 - Persuasion Credits: 3
- SPMT 286 - Sport Communication and Technology Credits: 3

### Interpersonal / Ethics

- SOWK 105 - Human Diversity Credits: 3
- COMM 217 - Intercultural Communication Credits: 3
- ELEC 281 - Family and Community Diversity and Partnerships Credits: 3
- CDEV 201 - Interpersonal and Group Dynamics Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- PHIL 123 - Ethics Credits: 3
- PHIL 324 - Environmental Ethics Credits: 3
- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PHIL 326 - Business Ethics Credits: 3
- PE 270 - Psychological and Sociological Bases of Sport Credits: 3
- PSYC 208 - Personality Credits: 3
- PSYC 310 - Introduction to Industrial-Organizational Psychology Credits: 3
- PSYC 377 - Social Psychology Credits: 3
- PSYC 480 - Behavior Management Credits: 3
- PROF 103 - Contemporary Social Problems Credits: 3
- PROF 105 - Economics of Social Issues Credits: 3
- PROF 106 - Race and Ethnic Diversity in the USA Credits: 3
- PROF 304 - Urban Sociology Credits: 3

- PROF 310 - Cultural Area Studies Credits: 3
- PROF 321 - Minority Groups Credits: 3
- PROF 201 - Principles of Sociology Credits: 3
- PROF 202 - Introduction to Anthropology Credits: 3
- PROF 226 - Population and Society Credits: 3
- PROF 326 - Society, Culture and Self Credits: 3
- PROF 330 - Collective Behavior Credits: 3
- PROF 339 - Gender Roles and Society Credits: 3
- PROF 340 - Social Inequality Credits: 3
- PROF 342 - Sociology of Aging Credits: 3
- PROF 348 - Sociology of Organizations Credits: 3
- PROF 360 - Women in Asian Societies Credits: 3
- PROF 412 - Basic Sociological Theory Credits: 3

## Decision Making

- COMM 312 - Argumentation Credits: 3
- MGMT 454 - Management Seminar Credits: 3
- MGMT 458 - Integrated Business Policy Credits: 3
- MS 301 - Fundamentals of Tactical Operations Credits: 4
- PHIL 113 - Introduction to Logic Credits: 3
- PE 348 - Aquatic Leadership Credits: 2
- PREE 318 - Park and Recreation Administration Credits: 3
- PROF 325 - Social and Ethical Issues in Philanthropy and Fundraising Credits: 3

## Strategic Planning / Time Management / Managing Change

- MGMT 360 - Total Quality Management Credits: 3
- MGMT 454 - Management Seminar Credits: 3
- MGMT 457 - International Management Credits: 3
- MGMT 458 - Integrated Business Policy Credits: 3
- MS 402 - Officership and the Profession of Arms Credits: 4
- PE 369 - Philosophy and Psychology of Coaching Credits: 3
- PROF 320 - Community Change and Development Credits: 3
- SAFE 328 - Comprehensive Emergency Management and Fire Services Credits: 3
- SPMT 406 - Sport Facility and Event Management Credits: 3

## Civic Engagement

Choose one of the following or any course with a Service Learning Component

- PROF 120 - Civic Engagement and Community Decision-Making Credits: 3
- PROF 320 - Community Change and Development Credits: 3
- SPED 342 - Seminar in CPAD Credits: 3

## Leadership Application: 6-9 credits



The following is required:

1. Completion of any two courses incorporating a Service Learning component
2. Completion of a leadership application course or departmental approved activity (approved activities: Office holder for a semester in a campus club, fraternity, sorority, or other organization). Suggested courses below.
3. Completion of the Compass Leadership Program
  - COMM 318 - Professional Presentation Credits: 3
  - CPSC 443 - Software Project Management Credits: 3
  - ELEC 320 - Elementary Field Experience Credits: 3
  - ERS 301 - Exercise Leadership: Group Fitness Credits: 3
  - ERS 302 - Exercise Leadership: Resistance Training Credits: 3
  - ERS 407 - Health Care Administration in Athletic Training Credits: 3
  - MGMT 454 - Management Seminar Credits: 3
  - MGMT 458 - Integrated Business Policy Credits: 3
  - MS 280 - Leadership Seminar Credits: 3
  - MS 302 - Advanced Military Skills Credits: 4
  - MS 401 - Leadership Dimensions and Concepts Credits: 4
  - PREE 304 - Search and Rescue/Wilderness Medicine Credits: 3
  - PREE 312 - Commercial Recreational Feasibility Studies Credits: 3
  - PREE 316 - Management of Leisure Services and Commercial Facilities Credits: 3
  - PREE 342 - Group Facilitation and Leadership Credits: 3
  - PREE 372 - Visitor Services Management Credits: 3
  - PREE 412 - Open Space Planning Credits: 3
  - PREE 415 - Challenges and Trends in Parks and Recreation Credits: 3
  - PREE 416 - Group Recreation Programming Credits: 3
  - PREE 417 - Hotel/Lodging & Hospitality Management Credits: 3
  - PREE 423 - Therapeutic Recreation Interventions Credits: 3
  - PREE 436 - Event Planning & Tournament Structure Credits: 3
  - SPMT 294 - Sport Management and Ethics Credits: 3
  - SPMT 494 - Sport Management Senior Seminar Credits: 3

## Leadership Experience: 0-3 credits

1. Completion of an internship in leadership or commensurate experience. See course selections below.
  2. Preparation and submission of an e-portfolio documenting the Leadership minor.
  3. Commensurate experiences:
    - Office holder for at least an academic year in a campus club, fraternity, sorority, Student Government Association, or other organization
    - Professional experience in a management position for at least one year
- 
- MS 250 - ROTC Basic Leadership Practicum Credits: 3
  - MS 350 - ROTC Advanced Leadership Practicum Credits: 3
  - MS 450 - The Cadet Troop Leadership Internship Credits: 3
  - PE 455 - Student Teaching - Physical Education Credits: 12
  - PSYC 420 - Community Service Practicum in Psychology Credits: 3
  - PREE 455 - Student Teaching - Environmental Education Credits: 12, 6, 3

# Minor in Nonprofit Leadership

Department of Professional Studies

The minor in nonprofit leadership is intended to be useful to those students who may choose to either follow a career path or a personal goal of working within a nonprofit, nongovernmental organizational context. These courses prepare students to meet professional demands of the nonprofit sector.

## Program Requirements

- PROF 205 - Accounting for Decision Makers Credits: 3
- PROF 220 - Introduction to Nonprofit Leadership Credits: 3
- PROF 320 - Community Change and Development Credits: 3
- PROF 325 - Social and Ethical Issues in Philanthropy and Fundraising Credits: 3
- PROF 450 - Internship Credits: Up to 12

## And one of the following

- CDEV 248 - Human Development and Education Credits: 3
- PROF 106 - Race and Ethnic Diversity in the USA Credits: 3
- PROF 120 - Civic Engagement and Community Decision-Making Credits: 3

# Professional Studies (BS)

Department of Professional Studies

The BS in Professional Studies is an outcome based degree, drawing from the richness of a liberal arts based education, which provides opportunities for students to develop an interdisciplinary educational program of study in consultation with their adviser. Students select courses that demonstrate competency in the following three areas:

1. Oral and Written Communications
2. Interpersonal Skills and Civic Responsibility
3. Quantitative, Analytical, and Critical Thinking Skills

Students will also demonstrate, through courses or non-credit experiences, that they have had experiential learning experiences related to their course of study. The specific courses used to meet these degree requirements vary with each student. The courses selected to meet the above listed outcomes are based upon the academic emphasis identified by the student for their program of study and are approved by their academic adviser.

What can students study with this degree? The degree provides three types of academic opportunities. The first, **degree completion**, provides opportunities for students to graduate with a program of study that builds upon their prior educational experiences when they find they are unable to complete their current degree program. The second allows students, with their adviser, to develop a **self-designed program of study** in the following areas:

- Sociology
- Anthropology
- Asian Studies
- Non-Profit Leadership

- Fraud
- Pre-Law and other Pre-Professional Programs

The department also offers a number of minors in the following areas: Sociology, Anthropology, Non-Profit Leadership, and Leadership.

All students must have a 2.00 GPA and have earned 30 credits before they can be accepted into the degree program. Minors do not carry these requirements. New students to the university can select this degree, but will start their program of study in the Exploratory Program while having faculty from the Department of Professional Studies serve as their advisers. Once the degree entry requirements are met the students formally move into the degree program.

The BS in Professional Studies affords students opportunities to be flexible and creative in designing their program of study. Students who want to integrate more than one area of study in ways not found in Slippery Rock's traditional majors may consider this degree. Students with a specific career or professional interest, an interest in graduate school or a graduate level professional program that has certain competencies, but does not require a specific undergraduate major, may find this degree appropriate for them. This degree is also valuable as a second major for students who want more than a minor to their program of study.

## Program Requirements – Credits: 120 (including transfer credits)

### Core Courses - Credits: 15

At least 3 credits in each of the following areas:

Oral and Written Communication

Interpersonal Skills and Civic Responsibility

Analytical, Quantitative, and Critical Thinking Skills

### Emphasis Area - Credits: 15

### Experiential Learning

All new Professional Studies majors will be required to demonstrate completion of a 40 hour (minimum) experiential learning requirement. Depending on the student's area of emphasis, this may be demonstrated by an internship, Americorps, Compass Leadership, study abroad, service learning, conference presentation, or other documented experience approved by the student's advisor and the chairperson of Professional Studies.

## Safety Management

208 Strain Behavioral Science Building  
724-738-2017

Safety Management

The mission of the Safety Management Major at Slippery Rock University is to provide a quality education in the managerial and technical aspects in the field of professional safety practice. Safety Management involves protecting and preserving people, property, productivity, and the environment.

Admission GPA policy, effective Fall 2012

- All Post-Bac, Transfer, and Readmit students must have an overall GPA of 3.0 before being admitted to the Safety Management Major.
- All change of major students must have an overall GPA of 2.50 before being admitted to the Safety Management major.
- Any readmit Safety Management Major must have an overall of 2.50 and a Major GPA of 2.50 before being admitted back into the major.

Once admitted to the Safety Management major, all students must maintain the current overall GPA of 2.25 and a Major GPA of 2.25, in order to graduate with a Bachelor of Science Degree in Safety Management.

Failure to maintain academic standards (GPA Policy) will result in a one semester probationary period in which the student must remedy any deficiencies. If the student is not able to attain the necessary GPA requirements or grade standards by the end of the probationary period, the student will be removed from the Safety Management major permanently.

**Chair**

Joseph Cali

**Secretary**

Patti Pink

**Faculty**

Angela Bernardo, Joseph Cali, Wilma Cavill, George Mihalik, Daniel Sherwin

The Department of Safety Management offers a Bachelor of Science with a major in Safety Management.

## **Safety Management (BS)**

Safety Management Department

**Chairperson**

Joseph Cali

"Attending Slippery Rock University as a Safety Management major has provided me with numerous opportunities in regard to my future career. The Rock is recognized in interviews and holds a highly respected reputation among the safety profession. The safety staff are not only excellent educators but are also a great group of individuals that truly want all students to advance toward success in all aspects of life." **Sara Hand 2011**

The B.S. in Safety Management is designed to assure development of competencies which enable innovative approaches in the establishment and direction of comprehensive safety programs in educational, governmental, private business and industrial enterprises. Safety Management involves protecting and preserving people, property, productivity and the environment. The curriculum fosters an education that enables students to become responsible, knowledgeable and accountable safety professionals. The major is based on Safety Management concepts with

technical elements incorporated throughout the curriculum. The Safety Management major at Slippery Rock University is an Institute for Safety and Health Management (ISHM) Board approved degree program.

Admission GPA policy, effective Fall 2012

- All Post-Bac, Transfer, Readmit, and change-of-major students must have an overall GPA of 2.5 before being admitted to the Safety Management Major.
- Once admitted to the Safety Management major, all students must maintain the current overall GPA of 2.25 and a Major GPA of 2.25, in order to graduate with a Bachelor of Science Degree in Safety Management.
- It is solely the students' responsibility to monitor and meet this requirement.

### **Post Grad Certification**

The B.S. in Safety Management degree is approved by the Institute for Safety and Health Management. Such recognition permits Slippery Rock University's Safety Management graduates to apply for the Associate Safety and Health Manager's (ASHM) designation. With two additional years of work experience, the graduate can seek the Certified Safety and Health Manager's (CSHM) designation. Individuals graduating from non-recognized programs must work five years before applying for certification. The Certified Safety and Health Manager (CSHM) is accredited by the Council on Engineering and Scientific Specialty Boards (CESB).

### **Career Opportunities**

Upon completion of the degree, students are prepared for entry-to-mid-level administrative, managerial, and supervisory positions in the field of safety. Other options include: health care, insurance, manufacturing, chemical, consulting, higher education and government agencies. Additional options and positions include: risk control manager, safety consultant, safety coordinator, safety account manager, assistant safety representative, loss control representative, health and safety scientist, safety and environmental manager, safety engineer, regional safety coordinator, senior environmental engineer, corporate health and safety officer, regulatory compliance coordinator, and safety and health compliance officer.

### **Internship Program**

The internship offers students the opportunity to obtain firsthand experience in the work place. Students are provided the opportunity to apply concepts and techniques learned in the classroom to the workplace environment. The internship program is administered in cooperation with a variety of organizations, including government, industry, insurance, health care and other related enterprises. The 12-week, 12-credit internship is offered only during the summer term, with the majority of interns receiving compensation.

### **Student Organizations**

All students accepted into the safety management major are encouraged to be student members of both the American Society of Safety Engineers and the student section of ASSE at Slippery Rock University. Students are also encouraged to attend meetings, conferences, seminars, and workshops as part of their professional educational growth.

Contact the Department of Safety Management for the most current requirements.

## **Requirements for the Major**

### **Required Professional Courses:**

- SAFE 118 - Introduction to Safety Credits: 3
- SAFE 218 - Hazard Analysis and Legislative Compliance Credits: 3
- SAFE 318 - Principles of Industrial Hygiene Credits: 3
- SAFE 319 - Principles of Industrial Hygiene II Credits: 3

- SAFE 328 - Comprehensive Emergency Management and Fire Services Credits: 3
- SAFE 338 - Ergonomics and Human Factors Credits: 3
- SAFE 348 - Hazardous Materials and Waste Management Credits: 3
- SAFE 358 - Construction Safety Credits: 3
- SAFE 368 - Injury and Damage Incidents Evaluation Credits: 3
- SAFE 408 - Contemporary Safety Topics and Issues Credits: 3
- SAFE 418 - Security in the Workplace Credits: 3
- SAFE 428 - Motor Transportation Fleet Safety Credits: 3
- SAFE 448 - Management and Integration of Safety Credits: 3
- SAFE 488 - Safety Training and Development Credits: 3
- SAFE 450 - Internship Credits: Up to 12

## Required Support Courses

Science and Mathematics courses may also be used in your Liberal Studies requirements.

- CHEM 104 - Introduction Chemistry I Credits: 3  
OR
- CHEM 107 - General Chemistry I Credits: 3
- CHEM 106 - Introductory Chemistry II Credits: 3  
OR
- CHEM 108 - General Chemistry II Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 354 - Human Resources Management Credits: 3

## Internship Requirement / Policy

Each student is required to successfully complete a 12 credit (SAFE450), 480 hour internship in order to graduate with a BS in Safety Management. It is the student's responsibility to secure an internship site. Internship requirements are available from the Department of Safety Management. The internship will only be waived if a student prior to entering the Safety Major at Slippery Rock University has held a professional full-time position in the field of Safety (documentation required) or has a military commitment (documentation required). An Internship Resource Manual is available listing sites where students have completed Safety Internships in the past. Potential Internship employers also conduct interviews on campus. If a student fails to secure and complete an internship, they must change their major. The major that will assist the student who does not complete an internship in graduating is a BS in Professional Studies.

## School of Business

School of Business

110 Eisenberg Building  
724-738-4865

### **Chair**

David Culp

### **Assistant Chair**

Anna Lusher

**Secretaries**

Danielle Bailey, Brenda Best

**Faculty**

Frances Amatucci, Melanie Anderson, John Buttermore, Anindya Chatterjee, David Culp, Diane Galbraith, John Golden, Fusun Gonul, Richard Grimm, Alben Iossifova, Benjama Jirasakuldech, Anna Lusher, Donald Mong, Jeananne Nicholls, Abbas Noorbakhsh, Bruce Orvis, Ahmad Shahidi, Roger Solano, Pavani Tallapally, Frederick Tannery, Jesus Valencia, Theresa Wajda, Fred Webb,

**Vision**

Success starts here.

**Mission**

Helping students build strong foundations for successful careers:

- Written and oral communication skills
- information technology
- Critical thinking and problem solving
- Ethics
- Professional proficiency

The School of Business supports this mission through a focus on:

- Globalism
- Interpersonal skills
- Ethical decision making
- Student engagement
- Experiential learning
- Sustainability
- Entrepreneurship
- Leadership

Slippery Rock University's School of Business, as part of the College of Business, Information, and Social Sciences, exists to serve students interested in business careers and to equip them with the necessary knowledge and skills to become the business leaders of tomorrow. The School of Business offers the Bachelor of Science in Business Administration (BSBA) degree in six majors: accounting, economics, finance, management, sustainable management, and marketing. All students complete a core of business courses designed to provide them with a solid foundation in the main functional areas of business in addition to courses in their major.

Graduation requirements for all students pursuing the BSBA degree include a minimum 2.000 grade point average in courses designated as the BSBA core, a minimum 2.500 grade point average in courses constituting the major field of study (accounting, economics, finance, management, and marketing), and a minimum 2.000 grade point average in all coursework taken at Slippery Rock University. Transfer students must earn at least 30 credits in business courses at Slippery Rock University in order to be eligible for the degree. (Twelve of these credits must apply to the students' major in the degree.)

All students must complete at least 48 hours of upper division courses for graduation.

Students currently enrolled at SRU in another degree program cannot declare business as their major until their overall GPA is 2.5 or higher.

## **BSBA Core Course Requirements (45 credits)**

**Note:** For detailed course information see the Course Descriptions section of this catalog or the program of interest.

**Required BSBA Core Courses (39 credits):** ACCT 209, ACCT 210, ACCT 340, ECON 201, ECON 202, ECON or MGMT 219, FIN 303, FIN 320, MGMT 351, MRKT 330, MGMT 320, MGMT 365 or CPSC 365, MGMT 458.

**Required Non-Business Courses (6 credits):** CPSC 210, MATH 123 or MATH 225.

In addition to the business core, students are required to complete courses in their chosen major (accounting: 24 credits; economics: 18 credits; finance: 18 credits; management: 21 credits, and marketing: 18 credits.)

**Requirements for Minor in Business Administration (for students who are not pursuing a BSBA degree)**

Required Courses (24 credits): ACCT 209, ECON 201 or ECON 202, MGMT 351, MRKT 330, and twelve additional credits selected from the 200-, 300-, or 400-level courses in any business discipline. At least six credits must be courses at the 300 or 400 level. At least 4 credits must be taken that do not count in the students' major.

Students pursuing a minor in business administration must maintain a minimum GPA of 2.000 in all business courses taken at Slippery Rock University.

## Accounting (BSBA)

School of Business

The Accounting program at Slippery Rock University prepares students for success in the challenging and rewarding field of accounting. The integrated curriculum focuses on the development of students' business and accounting skills and knowledge while enhancing their communication, teamwork, critical thinking, and problem solving skills as well as technological proficiency. Emphasis is placed on student learning through research and practical application as students prepare for professional certification exams and careers in public accounting, government, and private industry. Student professional growth is encouraged and enhanced through participation in the Student Accounting Society and the internship program in the School of Business.

In the classroom, accounting students are introduced to a variety of software programs used by accounting professionals that provide realistic application of accounting practices and procedures. This state-of-the-art learning center engages students in the learning process as they master accounting concepts, principles, and related procedures in an environment that simulates the workplace. The School of Business' accounting program is a step above the ordinary; it equips future accounting professionals with a unique set of marketable skills that sets them apart from their peers in the workplace.

## Requirements for the Major

### Required BSBA Core Courses - Credits: 39

- ACCT 209 - Financial Accounting Credits: 3
  - ACCT 210 - Managerial Accounting Credits: 3
  - ACCT 340 - Legal Environment of Business I Credits: 3
  - ECON 201 - Principles of Macroeconomics Credits: 3
  - ECON 202 - Principles of Microeconomics Credits: 3
  - FIN 303 - Issues in Global Business Credits: 3
  - FIN 320 - Managerial Finance Credits: 3
  - MGMT 219 - Business Statistics Credits: 3
- OR



- ECON 219 - Business Statistics Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 365 - Management Information Systems Credits: 3
- OR
- CPSC 365 - Management Information Systems Credits: 3
- MGMT 458 - Integrated Business Policy Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Accounting Major - Credits: 24

- ACCT 308 - Federal Individual Income Tax Credits: 3
- ACCT 310 - Cost Accounting Credits: 3
- ACCT 313 - Intermediate Accounting I Credits: 3
- ACCT 314 - Intermediate Accounting II Credits: 3
- ACCT 330 - Accounting Information Systems Credits: 3
- ACCT 411 - Auditing Theory and Practice Credits: 3
- ACCT 413 - Advanced Accounting Credits: 3

Choose one Accounting Elective from the list below:

- ACCT 311 - Federal Corporate and Transfer Taxes Credits: 3
- ACCT 341 - Legal Environment of Business II Credits: 3
- ACCT 412 - Accounting Seminar Credits: 3
- ACCT 450 - Internship Credits: Up to 12
- FIN 321 - Investments Credits: 3
- FIN 323 - Financial Markets and Institutions Credits: 3
- FIN 409 - Retirement and Estate Planning Credits: 3

## Other Required Courses - Credits: 6

- CPSC 210 - Productivity Software Credits: 3
- MATH 123 - Introduction to Applied Calculus Credits: 3
- OR
- MATH 125 - Precalculus Credits: 4
- OR
- MATH 225 - Calculus I Credits: 4

# Certificate in Accounting

School of Business

A Certificate in Accounting permits students interested in a career as a Certified Public Accountant who have a non-accounting bachelor's degree or are currently enrolled in a non-accounting bachelor degree program, to pursue a program of study that will prepare them for the Uniform CPA exam. Students are required to have 150 hours of college credit to receive CPA certification and licensure in the state of Pennsylvania.

**Program Requirement:** The Certificate in Accounting will be awarded upon successful completion of approved coursework with a 2.5 GPA for all courses taken at SRU. Students must complete a minimum of 30 hours of coursework at SRU.

CPA exam candidates will design a program of study to include the following courses:

## Related Business Courses:

- CPSC 210 - Productivity Software Credits: 3
- ECON 219 - Business Statistics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3

## Accounting Courses

Required Accounting Courses:

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3
- ACCT 308 - Federal Individual Income Tax Credits: 3
- ACCT 310 - Cost Accounting Credits: 3
- ACCT 313 - Intermediate Accounting I Credits: 3
- ACCT 314 - Intermediate Accounting II Credits: 3
- ACCT 330 - Accounting Information Systems Credits: 3
- ACCT 340 - Legal Environment of Business I Credits: 3
- ACCT 411 - Auditing Theory and Practice Credits: 3
- ACCT 413 - Advanced Accounting Credits: 3

## Approved Elective

Choose one 300/400 level Accounting or Finance course with departmental approval.

## Economics (BSBA)

School of Business

A student pursuing a bachelor of science in business administration degree can choose to major in economics. Economics studies how markets allocate resources to promote our personal and collective well-being. It helps students develop a framework for understanding how events affect different markets for goods and services and how the aggregate functioning of the markets determine output, employment and prices. Students are also able to evaluate government policies designed to stabilize the economy, redistribute income, regulate industries and foster international trade.

Economics majors are encouraged to join both Omicron Delta Epsilon, an international honor society in economics, and the Economics, Finance and International Business Club. Both sponsor a variety of professional and social activities which allow students to enhance their out-of-classroom experience, develop a sense of professional common bond and group support among themselves and create a network with off-campus professionals.

All majors are encouraged to do an internship in the summer semester between their junior and senior year. Students may seek placements in their individual area of interest. Internships are available in the areas of banking, insurance, financial advising, financial services, and manufacturing and government. In today's market, employers often offer internships to attract qualified students to their firms.

Economics offers a broader view of the economy than other business related majors. The emphasis is on developing critical thinking and problem solving skills. Graduates are well prepared for careers in the public and private sector and receive an excellent background for furthering their education at graduate or professional schools.

## Requirements for the Major

### Required BSBA Core Courses - Credits: 39

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3
- ACCT 340 - Legal Environment of Business I Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 219 - Business Statistics Credits: 3
- OR
- MGMT 219 - Business Statistics Credits: 3
- FIN 303 - Issues in Global Business Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 365 - Management Information Systems Credits: 3
- OR
- CPSC 365 - Management Information Systems Credits: 3
- MGMT 458 - Integrated Business Policy Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

### Required Major Courses - Credits: 18

- ECON 301 - Macroeconomic Analysis Credits: 3
- ECON 302 - Microeconomic Analysis Credits: 3
- ECON 304 - Money and Banking Credits: 3
- OR
- FIN 323 - Financial Markets and Institutions Credits: 3
- ECON 326 - International Economics Credits: 3

### And 2 Elective Courses

Elective courses are selected from any 300-400 level economic courses.

## Other Required Courses - Credits: 6

- CPSC 210 - Productivity Software Credits: 3
- MATH 123 - Introduction to Applied Calculus Credits: 3  
OR
- MATH 125 - Precalculus Credits: 4  
OR
- MATH 225 - Calculus I Credits: 4

## Finance (BSBA)

School of Business

A student pursuing a bachelor of science in business administration degree can choose to major in finance. Finance teaches students about the financial operations and financial management of firms. Students learn about the financial records of firms, the character and appraisal of corporate securities, and financial techniques used in all phases of the discipline. In addition, students may choose elective subjects which permit them to aim at a particular segment of finance, such as corporate finance, commercial and investment banking, and financial planning. Certain courses are offered each semester; others are cycled every other semester or every other year to provide the greatest diversification possible.

Finance majors are encouraged to join the Economics, Finance, and International Business Club. This organizations sponsor a variety of professional and social activities for students such as informal gatherings among students, invited speakers, tours and travel.

All majors are encouraged to do an internship in the summer semester between their junior and senior year. Students may seek placements in their individual area of interest. Internships are available in the areas of banking, insurance, financial advising, financial services, manufacturing and government. In today's market, employers often offer internships to attract qualified students to their firms.

Finance majors are particularly well suited for positions in the private or public sector that require knowledge of financial institutions and financial operations such as banks, insurance companies and real estate firms. Students are also well prepared for graduate and professional schools.

## Requirements for the Major

### Required BSBA Core Courses - Credits: 39

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3
- ACCT 340 - Legal Environment of Business I Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 219 - Business Statistics Credits: 3  
OR
- MGMT 219 - Business Statistics Credits: 3
- FIN 303 - Issues in Global Business Credits: 3
- FIN 320 - Managerial Finance Credits: 3

- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 365 - Management Information Systems Credits: 3  
OR
- CPSC 365 - Management Information Systems Credits: 3
- MGMT 458 - Integrated Business Policy Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Required Major Courses

- FIN 321 - Investments Credits: 3
- FIN 323 - Financial Markets and Institutions Credits: 3
- FIN 326 - Intermediate Corporate Finance Credits: 3
- FIN 427 - International Financial Management Credits: 3

## Two Elective Courses - Credits: 6

Elective courses are selected from other 300- and 400-level Finance courses, and/or including the following:

- ECON 301 - Macroeconomic Analysis Credits: 3
- ECON 302 - Microeconomic Analysis Credits: 3
- FIN 341 - Entrepreneurial Finance Credits: 3
- FIN 450 - Internship Credits: 3

## Other Required Courses - Credits: 6

- CPSC 210 - Productivity Software Credits: 3
- MATH 123 - Introduction to Applied Calculus Credits: 3  
OR
- MATH 125 - Precalculus Credits: 4  
OR
- MATH 225 - Calculus I Credits: 4

# Management (BSBA)

School of Business

A student pursuing a bachelor of science in business administration degree can choose to major in management. This program focuses on the process of working with and through others to achieve organizational objectives. Today's manager must effectively plan, organize, lead and make decisions in an increasingly complex, changing environment.

The management students learn to make decisions regarding production, personnel, and overall strategy within the organization, considering the need to be responsive to growing societal demands, international competition and the multicultural nature of today's work force. The program is relevant to students who plan to own, manage, or consult for any organization, large or small, public or private, profit or nonprofit.

## Requirements for the Major

## Required BSBA Core Courses - Credits: 39

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3
- ACCT 340 - Legal Environment of Business I Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 219 - Business Statistics Credits: 3
- OR
- MGMT 219 - Business Statistics Credits: 3
- FIN 303 - Issues in Global Business Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 365 - Management Information Systems Credits: 3
- OR
- CPSC 365 - Management Information Systems Credits: 3
- MGMT 458 - Integrated Business Policy Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Required Major Courses - Credits: 12

- MGMT 354 - Human Resources Management Credits: 3
- MGMT 454 - Management Seminar Credits: 3
- MGMT 457 - International Management Credits: 3
- MGMT 456 - Management and Society Credits: 3

## Management Electives - Credits: 9

Choose 3 courses from below

- MGMT 341 - Organizational Leadership Credits: 3
- MGMT 352 - Operations Management II Credits: 3
- MGMT 357 - International Operations Management Credits: 3
- MGMT 360 - Total Quality Management Credits: 3
- MGMT 364 - Recruitment and Selection Credits: 3
- MGMT 370 - Sustainable Entrepreneurship and Innovation Credits: 3
- MGMT 450 - Internship Credits: 3
- MGMT 451 - Employment Law Credits: 3
- MGMT 452 - Management-Labor Relations Credits: 3
- MGMT 455 - Compensation Management Credits: 3
- MGMT 456 - Management and Society Credits: 3
- MGMT 460 - Training and Development Credits: 3
- MGMT 459 - Sustainable Business Consulting Credits: 3

## Other Required Courses - Credits: 6

- CPSC 210 - Productivity Software Credits: 3
- MATH 123 - Introduction to Applied Calculus Credits: 3  
OR
- MATH 125 - Precalculus Credits: 4  
OR
- MATH 225 - Calculus I Credits: 4

## Marketing (BSBA)

School of Business

A student pursuing a bachelor of science in business administration degree can choose to major in marketing. The study of marketing involves the dynamic process by which persons and organizations strive to anticipate and satisfy consumers' needs and wants. In a free enterprise system, this is accomplished through marketing research, product planning, pricing, promotion, and distribution.

The marketing student develops an understanding of the concepts, functions and institutions of marketing, an appreciation of the consumer orientation, the skills to analyze and the ability to formulate marketing policies. The marketing major is particularly relevant to the student planning a career in sales, advertising, consumer relations, merchandising, brand management, marketing management, marketing research, retailing services, purchasing, business logistics, small business operations, executive management, consulting, business education, or employment in certain government agencies as well as many non-profit organizations.

### Requirements for the Major

#### Required BSBA Core Courses - Credits: 39

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3
- ACCT 340 - Legal Environment of Business I Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 219 - Business Statistics Credits: 3  
OR
- MGMT 219 - Business Statistics Credits: 3
- FIN 303 - Issues in Global Business Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 365 - Management Information Systems Credits: 3  
OR
- CPSC 365 - Management Information Systems Credits: 3
- MGMT 458 - Integrated Business Policy Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

#### Other Required Courses - Credits: 6

- CPSC 210 - Productivity Software Credits: 3
- MATH 123 - Introduction to Applied Calculus Credits: 3  
OR
- MATH 125 - Precalculus Credits: 4  
OR
- MATH 225 - Calculus I Credits: 4

## Required Marketing Major Courses - Credits: 18

- MRKT 332 - Business Marketing Credits: 3
- MRKT 333 - Consumer Behavior Credits: 3
- MRKT 430 - Marketing Research Credits: 3
- MRKT 431 - Marketing Seminar Credits: 3
- MRKT 437 - International Marketing Credits: 3

Choose one of the following:

- MGMT 370 - Sustainable Entrepreneurship and Innovation Credits: 3
- MRKT 331 - Distribution Management Credits: 3
- MRKT 334 - Advertising Management Credits: 3
- MRKT 335 - Retail Management Credits: 3
- MRKT 336 - Sales Management Credits: 3
- MRKT 338 - E-Commerce Credits: 3
- MRKT 450 - Internship Credits: 3

## Minor in Accounting (BSBA)

School of Business

Total credits: 24

At least 4 credits in the minor must be outside the major.

## Required Courses - Credits: 21

- ACCT 310 - Cost Accounting Credits: 3
- ACCT 313 - Intermediate Accounting I Credits: 3
- ACCT 314 - Intermediate Accounting II Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Elective Courses - Credits: 3

Choose one of the following:



- ACCT 308 - Federal Individual Income Tax Credits: 3
- ACCT 330 - Accounting Information Systems Credits: 3
- ACCT 411 - Auditing Theory and Practice Credits: 3

## **Minor in Business Administration (non-BSBA)**

School of Business

Total credits: 24

At least 4 credits in the minor must be outside the major.

### **Requirements for the Minor - Credits: 12**

- ACCT 209 - Financial Accounting Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- OR
- ECON 202 - Principles of Microeconomics Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

### **Electives - Credits: 12**

Select twelve additional credits from the 200-, 300-, or 400-level courses in any business discipline. At least six credits must be at the 300 or 400 level.

## **Minor in Business: Management Pre-MBA**

This minor is intended for non-BSBA (Bachelor of Science in Business Administration) students only. The Masters of Business Administration (MBA) degree is a highly sought after degree for students in many different majors that wish to pursue careers in business, the non-profit sector, and the public sector. The MBA degree offered by most institutions is a two year to two and one half year program. The BSBA core course requirements are usually credited toward the first year of an MBA program. The intent here is to offer a pre-MBA minor that will allow non-business students to prepare for the MBA program without changing their major to business administration. Given the number of students in other majors that minor in business and the number of students that reluctantly switch their major to business this minor will provide an excellent career option.

The proposed Business: Management Pre-MBA minor will be for non-BSBA students only. The minor will be 24 credit hours and require a GPA in the minor courses of 2.75 or above for successful completion. ACBSP, our business accreditation body mandates that the following common Professional Component (CPC) requirements be met for the accreditation of an MBA program. The School of Business has used these CPCs as a guide to the development of this minor:

- Marketing
- Business Finance
- Accounting
- Management
- Legal Environment of Business
- Economics

- Business Ethics
- Global Dimensions of Business
- Information Systems
- Quantitative Techniques/Statistics
- Comprehensive/ Integrative Experience

## Required Courses-24 credits

Minor Requirements:

- Students must complete at least 6 credits hours in their minor from SRU.
- A minimum of 9 credit house must be upper division ( an upper division course includes any 3 credit course that requires a pre-requisite).
- A minor shall be no fewer than 18 credits.
- A minor requires at least 4 additional credits that are outside the student's major.
- ACCT 290 - Experimental Credits: 3
- ACCT 340 - Legal Environment of Business I Credits: 3
- CPSC 365 - Management Information Systems Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 219 - Business Statistics Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Minor in Economics

School of Business

Total credits: 24

At least 4 credits in the minor must be outside the major.

Students pursuing a minor in economics must maintain a minimum GPA of 2.000 in all business courses taken at Slippery Rock University.

### Required Courses - Credits: 18

- ECON 301 - Macroeconomic Analysis Credits: 3
- ECON 302 - Microeconomic Analysis Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

### Elective Courses - Credits: 6

Choose two 300 or 400 Level Economics Courses

# Minor in Finance

School of Business

Students pursuing a minor in finance must maintain a minimum GPA of 2.000 in all business courses taken at Slippery Rock University.

## Required BSBA Core Courses - Credits: 24

- FIN 320 - Managerial Finance Credits: 3
- FIN 321 - Investments Credits: 3
- FIN 323 - Financial Markets and Institutions Credits: 3
- FIN 326 - Intermediate Corporate Finance Credits: 3
- FIN 427 - International Financial Management Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Minor in Management (BSBA majors)

School of Business

Total credits: 24

- At least 4 credits in the minor must be outside the major.
- Students must complete at least 6 credits in their minor from SRU.
- A minimum of 9 credit hours must be upper division (an upper division course includes any 3 credit course that requires a pre-requisite).
- A minor shall be no fewer than 18 credits per University policy.
- Minor GPA requirement 2.0 or higher for successful completion of minor.

## Required Courses - Credits: 18

- FIN 320 - Managerial Finance Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 354 - Human Resources Management Credits: 3
- MGMT 457 - International Management Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Elective Courses - Credits: 6

Choose two 300 or 400 level Management courses.

# Minor in Marketing (BSBA)

School of Business

Total credits: 24

At least 4 credits in the minor must be outside the major.

Students pursuing a minor in marketing must maintain a minimum GPA of 2.000 in all business courses taken at Slippery Rock University.

## Required Courses - Credits: 21

- FIN 320 - Managerial Finance Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3
- MRKT 332 - Business Marketing Credits: 3
- MRKT 333 - Consumer Behavior Credits: 3
- MRKT 437 - International Marketing Credits: 3

## Elective Courses - Credits: 3

Choose one 300 or 400 level Marketing course.

# Minor in Sustainable Management

School of Business

Total credits: 24

At least 4 credits in the minor must be outside the major.

## Required Courses - Credits: 12

- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 315 - Economics of Sustainable Development Credits: 3
- BIOL 105 - Environmental Biology Credits: 3
- OR
- EGEO 100 - Environmental Geology Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3

## Elective Courses - Credits: 12

Choose four courses from the following:

- MGMT 352 - Operations Management II Credits: 3

- MGMT 370 - Sustainable Entrepreneurship and Innovation Credits: 3
- MGMT 449 - Sustainable Management Internship Credits: 3
- MGMT 451 - Employment Law Credits: 3
- MGMT 456 - Management and Society Credits: 3
- MGMT 459 - Sustainable Business Consulting Credits: 3
- MRKT 338 - E-Commerce Credits: 3

## Sustainable Management (BSBA)

School of Business

A student pursuing a bachelor of science in business administration degree (BSBA) can choose a major in Sustainable Management. Sustainable Management is a degree program with a strong management component combined with an emphasis on sustainability. The School of Business teaches a triple bottom line (3BL) approach to sustainability. The 3BL approach emphasizes the importance of people and the planet as well as profit as important performance metrics that successful businesses must recognize. Managers following 3BL metrics recognize the stakeholder approach to decision making rather than the traditional shareholder approach. A stakeholder approach allows firms to engage in strategic planning that focuses on long-run value creation for the business as opposed to short-term profits as the sole performance measure.

Sustainable management majors are required to take three courses in science as a complement to their business management courses. These courses provide a foundation for prospective managers to understand the implications to the environment and the human stakeholders of business decisions.

Sustainable management majors are also exposed to actual hands-on learning experience through the requirements of taking either a sustainable internship or the sustainable business consulting course.

This program is relevant to students who plan to own, manage, or consult for any organization, large or small, public or private, profit or non-profit.

### Required BSBA Core Courses - Credits: 39

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3
- ACCT 340 - Legal Environment of Business I Credits: 3
- CPSC 365 - Management Information Systems Credits: 3
- OR
- MGMT 365 - Management Information Systems Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 219 - Business Statistics Credits: 3
- OR
- MGMT 219 - Business Statistics Credits: 3
- FIN 303 - Issues in Global Business Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MGMT 458 - Integrated Business Policy Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Required Major Courses - Credits:15

- ECON 315 - Economics of Sustainable Development Credits: 3
  - MGMT 370 - Sustainable Entrepreneurship and Innovation Credits: 3
  - MGMT 456 - Management and Society Credits: 3
  - MGMT 457 - International Management Credits: 3
  - MGMT 459 - Sustainable Business Consulting Credits: 3
- OR
- MGMT 449 - Sustainable Management Internship Credits: 3

## Elective Major Courses - Credits: 6

Choose two courses from the following:

- MGMT 341 - Organizational Leadership Credits: 3
- MGMT 352 - Operations Management II Credits: 3
- MGMT 354 - Human Resources Management Credits: 3
- MGMT 451 - Employment Law Credits: 3
- MGMT 454 - Management Seminar Credits: 3
- MRKT 338 - E-Commerce Credits: 3

## Other Required Courses - Credits: 15-16

- CPSC 210 - Productivity Software Credits: 3
  - MATH 123 - Introduction to Applied Calculus Credits: 3
- OR
- MATH 125 - Precalculus Credits: 4
- OR
- MATH 225 - Calculus I Credits: 4

Two of the following three courses:

- BIOL 105 - Environmental Biology Credits: 3
- CHEM 104 - Introduction Chemistry I Credits: 3
- EGEO 100 - Environmental Geology Credits: 3

One Additional Science Course - Credits: 3

## **Sport Management**

014 West Gym  
724-738-2060

Sport Management

Our mission is to provide a learning environment that:

- Prepares students for a variety of careers in the sport industry
- Fosters independent critical thinking and effective problem solving
- Includes faculty who are committed to quality teaching, research and service
- Promotes collaborative efforts among faculty and students
- Develops students who have a commitment to personal and professional competency
- Emphasizes student accountability for academic performance and ethical behavior
- Prepares students to serve a diverse population in a global society

**Chair**

Catriona T. Higgs

**Secretary**

Herman Boler

**Faculty**

Robertha Abney, Brian Crow, Catriona Higgs

The SRU sport management undergraduate program has been in existence since 1977 and in that period has witnessed exponential growth and increased national prestige. The sport industry, due to its wide variety of positions, places unique demands on those involved in its management. These positions require management, marketing, accounting, finance, economics, communications, and legal skills specific to the sport setting. Therefore, the preparation of competent sport/business specialists is necessary. The present curriculum offers an excellent base in specific sport management courses and many sport management students complete various minors in communication, business and other specialized areas.

The curriculum continues to be reviewed and adapted to meet changes in the sport industry. Evaluations from student interns and agency supervisors create the basis of the university's considerations, along with program standards developed by COSMA. The Sport Management Department is accredited by COSMA (The Commission on Sport Management Accreditation) and is one of only five programs in the US to be accredited. SRU Sport Management Department was the first program in the nation to receive this honor.

## Minor in Sport Management

The following new program requirements begin Spring 2013.

25 Credits Required

Sport Management

### Required Courses - Credits: 6

- SPMT 150 - Practical Application Credits: 1
- SPMT 194 - Introduction to Sport Management Credits: 3

### 200 Level Courses

Choose 2 courses from the following:

- SPMT 269 - American Sport in the 21st Century Credits: 3

- SPMT 286 - Sport Communication and Technology Credits: 3
- SPMT 294 - Sport Management and Ethics Credits: 3

## 300/400 level Courses

Choose 2 or 3 courses from the following:

If prerequisite coursework has not been completed, permission of instructor is required.

- SPMT 315 - Diversity Issues in Sport Management Credits: 3
- SPMT 369 - Sport Budgeting and Finance Credits: 3
- SPMT 394 - Sport Marketing Credits: 3
- SPMT 396 - Sport Sales and Fundraising Credits: 3
- SPMT 406 - Sport Facility and Event Management Credits: 3
- SPMT 486 - Sport Law Credits: 3

## Senior Seminar

All 100/200/300 classes must be completed prior to enrolling or permission of instructor is required.

- SPMT 494 - Sport Management Senior Seminar Credits: 3

## Internship

All classes must be completed in the minor prior to enrolling in the internship. Internship may be taken for 3 or 6 credits.

- SPMT 450 - Sport Management Internship Credits: 3-12

## Sport Management (BS)

Sport Management Department

*“The sports industry is fast paced and extremely competitive. The practical experience stressed in Slippery Rock’s Sport Management program prepared me for the “real world” expectations of the industry. Even after years in collegiate athletics I find myself consistently referring back to principles learned at Slippery Rock. I know my experience at The Rock laid the foundation for the success I have achieved”*

**David A. Sabolcik, Jr., SRU/98**  
**Executive Director**  
**Lobo Club**  
**University of New Mexico**

Recent estimates describe sport as one of the ten largest industries in the United States encompassing over \$214 billion dollars. This industry, due to its wide variety of positions, places unique demands on those involved in its management including skills in such areas as communications, public relations, facility management, marketing, budgeting, and legal aspects specific to sport settings.



Providing our sport management majors with the opportunity to gain knowledge and hands on experience is paramount for SRU's growth as a leader in undergraduate sport management in the United States.

## Requirements for the Major - Credits: 58

This major is designed to prepare students with the necessary sport business concepts, management, marketing, communication, and public relation skills to become successful managers in sport-related agencies. These agencies are diverse and include, professional sports, sport marketing firms, intercollegiate athletic departments, YMCA/YWCA's, sporting goods sales, fitness clubs, sport arenas, the Olympics, commercial recreational facilities and other sport-related agencies. A 12-credit internship is required in a sport-related agency during the last semester of the program. Students are encouraged to secure a minor in business.

## Required Practical Application Courses - Credits: 4

- SPMT 150 - Practical Application Credits: 1  
Student required to take 4 credits of SPMT 150

## Sport Management Courses - Credits: 54

- SPMT 194 - Introduction to Sport Management Credits: 3
- SPMT 196 - Global Sport Management Credits: 3
- SPMT 269 - American Sport in the 21st Century Credits: 3
- SPMT 286 - Sport Communication and Technology Credits: 3
- SPMT 294 - Sport Management and Ethics Credits: 3
- SPMT 315 - Diversity Issues in Sport Management Credits: 3
- SPMT 369 - Sport Budgeting and Finance Credits: 3
- SPMT 386 - Leadership in Athletic Administration and Sport Management Credits: 3
- SPMT 394 - Sport Marketing Credits: 3
- SPMT 396 - Sport Sales and Fundraising Credits: 3
- SPMT 406 - Sport Facility and Event Management Credits: 3
- SPMT 450 - Sport Management Internship Credits: 3-12
- SPMT 486 - Sport Law Credits: 3
- SPMT 494 - Sport Management Senior Seminar Credits: 3
- SPMT 499 - Sport Management Research Methods Credits: 3

## Sport Management Electives - Credits: 15

Select 15 credit hours of 300 level (or above) classes. The Department of Sport Management recommends courses to be taken from Accounting, Communication, Economics, Finance, Management or Marketing. Students can also choose from INDP 205. This will help you complete a minor if you are interested. See your Rock Audit for details.

## Additional Requirements

### Required Volunteer Hours

Volunteer Hours - 120 hours minimum

## Senior Comprehensive Exam

Required to pass the Senior Comprehensive Exam prior to internship

## First Aid and Safety

Students must become certified in both First Aid & CPR. This can be accomplished by taking a course (Red Cross or YMCA) or by completing SAFE 205 (First Aid and Safety).

# College of Education

105 McKay Education Building  
724-738-2007

The mission of the Slippery Rock University College of Education is to prepare educators and related professionals for service in a diverse global community. Within this context, teaching, scholarship and service are viewed as a triad, in which teaching is enlightened by scholarship and applied through service.

### **Dean**

A. Keith Dils

### **Assistant to the Dean**

Herbert Hunt

### **Administrative Assistant**

Michelle Houston

### **Management Technician**

Charlene Winslow

### **Departments**

Counseling and Development  
Elementary Education/Early Childhood Education  
Physical Education  
Secondary Education/Foundations of Education  
Special Education  
Sport Management

Slippery Rock University of Pennsylvania has been preparing teachers since 1889, when it began as a state normal school and developed through the years as a state teachers college and state college. Now, as a unit within a multi-purpose university, the College of Education programs are one of the largest segments of the student population. The near ideal enrollment of the college, the student/professor ratio, and dedication of the faculty enable us to continually prepare teachers for Pennsylvania, the nation, and the international community. The College consists of the departments of Counseling and Development, Elementary and Early Childhood Education, Physical Education, Secondary Education and Foundations of Education, and Special Education. In addition, School Nurse and Music Education are majors that lead to teacher certification, but are offered through other colleges within the university. These major fields of study are described as programs according to each administering department. The guidelines

included below apply to all department programs; additional, more specific guidelines are provided for each individual program.

## Teacher Education

The College of Education provides programs for the preparation of teachers for elementary and secondary schools. These programs are accredited by the National Council for the Accreditation of Teacher Education (NCATE), the respective learned societies (specialty program areas) for each program, the Middle States Association, and the Pennsylvania Department of Education. Additional certification programs (music education and school nurse) are offered in cooperation with the College of Humanities, Fine and Performing Arts and the College of Health, Environment and Science. However, within the College of Education is the certification officer for the University whose responsibility it is to review an individual's progress and recommend deserving candidates for teacher certification in Pennsylvania.

## Admission to Teacher Education

Although freshmen and transfer students may declare a major in education, students are not considered education majors until they have been admitted to the teacher education program (teacher candidacy). The following are the requirements for admission to the teacher education program: completion of 48 semester hours of credit including six credits of college level mathematics and six credits of English composition/literature; successful completion of the Praxis I/ PAPA examination (These criteria are established through the Pennsylvania Department of Education's Chapter 354). In addition, perspective students must have evidence of 20 contact hours with children in a school with at least 15% diversity (see advisor for clarification), and a 2.8 GPA. For additional requirements related to the admission to teacher education programs, students should consult the "Application for Admission to Teacher Candidacy" form available in their major department office. In addition, students must present evidence of a clear (**no record**) Act 34 (criminal record), Act 151 (child abuse), and FBI clearance (Act 114). Out-of-state students are also subject to background checks. Act 34 and Act 151 record checks are good for one year only. Detailed requirements and policies are described in the Teacher Education Policy Manual, which is available in the Dean's office or on the College of Education homepage.

## Request for Accommodations: Student Teaching with Disabilities

The university follows guidelines, including the Americans with Disabilities Act, in accommodating students with disabilities. Inquiries related to special needs must be made early in the program to the Office of Social Equity, especially for those who may apply for student teaching. To be recommended for certification, a candidate must demonstrate the ability to perform essential functions required of all beginning teachers.

## Student Teaching

A teacher candidate, having met or exceeded personal and program requirements at prescribed levels of competence, has earned the right to participate in student teaching. While student teaching, the teacher candidate experiences the comprehensive assessment of performance mandated in an approved certification program. The practical application of instruction and learning can be simulated in university classrooms, but not duplicated. A true test of relating theory into practice awaits each teacher candidate, assisted by a cooperating teacher and a university supervisor.

Pre-registration for this capstone experience, one year in advance, reserves the right of assignment for the qualified candidate. Completed cards, signed by the candidate's advisor, are filed in McKay Education Building (MEB), room 105. Qualified applicants anticipate successful completion of all program courses with a grade of "C" or higher for

certification prior to student teaching. Also, a tuberculin test, 30 days prior to contact with school students, is required. In addition, students must present current evidence of a clear (**no record**) Act 34 (criminal record), Act 151 (child abuse), and Act 114 (FBI clearance). Out-of-state students are also subject to background checks.

Actual registration for student teaching takes place early in the semester preceding the experience. Beginning with mandatory attendance at the student teaching orientation meeting, students are acquainted with policies and procedures including automated registration.

The university student teaching supervisors service a large geographical area. However, the area serviced in any particular semester varies according to candidate placements and supervisor availability. In the student teaching semester, candidates are responsible for their own housing and transportation to assignments in school districts and should realize that this will be an added expense to the cost of a university education. A student teaching handbook is provided at the beginning of the student teaching semester in the opening seminar. Additional policies and procedures are described in the Teacher Education Policy Manual.

## Placement of Student Teachers

Students are permitted to make several suggestions for districts, in close proximity to permanent or temporary residences, in which they may be assigned to student teach. These suggestions are non-binding to the university, but helpful as one variable in the assignment of student teaching sites. Transportation to the student teaching site is an individual's responsibility.

## Certification

A baccalaureate degree is a requirement for Pennsylvania certification and requires successful completion of a minimum of 120 credits, including the liberal studies requirements. However, in some instances, a degree may be awarded without recommendation for certification. A recommendation for the Instructional I (Provisional) certificate requires satisfactory completion of an approved program which includes a 16 week student teaching experience, while satisfying general graduation requirements, the required 3.0 GPA for certification and a passing score on the PRAXIS II examination(s) in the candidate's content area. Seniors meeting all requirements will be provided with graduation application materials at the beginning of the semester in which they should graduate. Applications are received by the Office of Dean of Education during the first three weeks of the semester. Students failing to complete program requirements must reapply.

## Interstate Reciprocity

Although some states have not formally agreed to reciprocity, the Pennsylvania certificate has been honored by most states.

## Praxis Test Results

The following information is presented in accordance with the Title II Higher Education Act of 1998 and is a result of the most recent Praxis results (2010-2011). While the state of Pennsylvania mandates that candidates who are recommended for certification must have passing scores on the Praxis series, SRU, unlike some other teacher preparation institutions, does not withhold candidate graduation until Praxis/PECT tests are passed. However, all candidates must present evidence of having taken the Praxis II/ PECT test for the area in which they will student teach. Those who do not pass the Praxis II/ PECT prior to student teaching must show evidence that they are enrolled in an appropriate remediation program prior to the start of student teaching.

Area: Pass Rate  
State

SRU

Pass Rate

Pass Rate

**Basic Skills**

PPST Reading	100%	100%
Computerized PPST Reading	100%	
100%		

PPST Writing	100%	99%
Computerized PPST Writing	100%	
98%		

PPST Mathematics	100%	99%
Computerized PPST Mathematics	100%	
99%		

**Academic Content Areas**

Elem Ed Curr. Instruc. Assessment.	86%
91%	

Early Childhood Educ.	100%
99%	

English Lang. Lit. Comp. Cont Knowledge	92%
97%	

Social Studies Content Knowledge 95%	94%
Music Content Knowledge 97%	100%
Fundamental Subjects 99%	97%
Education of Exceptional Students 100%	100%
<b>Other Content Areas</b>	
Health and Physical Education 100%	100%
French Content Knowledge 75%	*
Spanish Content Knowledge 73%	*
Biology Content Knowledge 98%	*
Chemistry Content Knowledge 89%	*
Physics Content Knowledge 90%	*
General Science Content Knowledge 95%	*
Earth Science Content Knowledge 92%	*

\* Fewer than 10 students took this test during the academic year, therefore, there is no report of their pass rate.

**Post-baccalaureate Studies**

Individuals who have earned a baccalaureate degree from an accredited institution may qualify for initial certification or an endorsement to an existing teaching certificate by completing prescribed requirements in one or more of the approved undergraduate programs.

An application for a post-baccalaureate (post-bac) program must be submitted to the university's Undergraduate Admissions Office where the candidates' previous work is reviewed. Following this review, the candidate will be notified of his/her admission status. Work that is dated, especially in pedagogy, may not be accepted and the candidate may be required to retake such courses. Candidates accepted for admission as post-bac students will be informed of program requirements to be completed to obtain certification in the desired area. Admission to post-bac study requires a minimum undergraduate GPA (Quality Point Average) for admission. Those who do not have the minimum GPA may apply for "conditional" admission provided they meet the requirement as set forth in the Teacher Education Policy Manual. In addition to the GPA requirement, post-baccalaureate students must submit proof of clear (**no record**) Acts 34 (criminal record), 151 (child abuse), and Act 114 (FBI clearance). for admission and maintain clear records throughout the program. Out-of-state students are also subject to background checks. These record checks are good for one year only. A field experience is required so the candidate's teaching ability may be observed and evaluated in the area for which initial certification or added endorsement is sought. In addition, post baccalaureate students must have the Praxis II/ PECT prior to student teaching (if required). Those who do not pass the Praxis II/ PECT in their content area must show evidence that they are enrolled in an appropriate remediation program as determined by the Assistant to the Dean prior to student teaching.

Benefits of post-baccalaureate work include: earning an initial or additional certification, obtaining an additional degree, making a certificate permanent, or personal enrichment. At the start of the post-baccalaureate education, candidates must state their intention for their program. Those candidates pursuing an additional degree must earn a minimum of 30 credits beyond their initial baccalaureate degree. To add an additional major or minor to an existing baccalaureate degree requires earning an additional degree.

Admission to all programs is determined on a space available basis and some programs may not be open to admission. Candidates are encouraged to speak to the chair of the department in which the certificate they intend to pursue is housed to ascertain departmental admissions procedures.

## Gerontology

### Gerontology Program

018 Carruth Rizza Hall  
724-738-2855

#### Coordinator

Adelle Williams

*"My experience with the SRU gerontology program fostered my interest in aging. The education was the key that unlocked the door to my career in gerontology."*

**Michelle Zanicky Jamieson**

Gerontology is an interdisciplinary specialization that focuses on aging and the aging process. This specialization is designed to enhance the understanding of aging and enrich interactions among generations. It is a valuable adjunct for those preparing to work directly with, or indirectly for, older persons. Job opportunities for students who have academic preparation in gerontology are available in community agencies servicing the older adult, long term care facilities and hospitals, senior citizen living facilities, and community recreation and senior centers. The program is open to students in any major. Students may decide to complete the requirements for a certificate in gerontology or a gerontology minor.

Students conduct an internship in an organization which provides services to older adults and students actively participate in a service learning project. Opportunities to participate in campus and community activities are available.

Sigma Phi Omega, the national gerontology honorary society recognizes students' exemplary scholastic accomplishments in the field of aging. Undergraduate students with a GPA of 3.3 or above (on a 4.0 scale) are eligible

to apply. The Anne Bicknell Scholarship is offered on an annual basis (based upon available findings) and an application, essay and references are required.

## Advisement

Students planning to complete the program in gerontology will declare a major within a department. Major responsibility for advisement will rest within this department. However, the coordinator will assist students in the selection of gerontology courses to fulfill either the certificate or the minor in gerontology. Students must assume responsibility for fulfilling all requirements for graduation.

## Certificate in Gerontology

Gerontology Program

### Coordinator

Adelle Williams

*“My experience with the SRU gerontology program fostered my interest in aging. The education was the key that unlocked the door to my career in gerontology.”*

**Michelle Zanicky Jamieson**

Gerontology is an interdisciplinary specialization that focuses on aging and the aging process. This specialization is designed to enhance the understanding of aging and enrich interactions among generations. It is a valuable adjunct for those preparing to work directly with, or indirectly for, older persons. Job opportunities for students who have academic preparation in gerontology are available in community agencies servicing the older adult, long term care facilities and hospitals, senior citizen living facilities, and community recreation and senior centers. The program is open to students in any major. Students may decide to complete the requirements for a certificate in gerontology or a gerontology minor.

Students conduct an internship in an organization which provides services to older adults and students actively participate in a service learning project. Opportunities to participate in campus and community activities are available.

Sigma Phi Omega, the national gerontology honorary society recognized students' exemplary scholastic accomplishments in the field of aging. Undergraduate students with a GPA of 3.3 or above ( on a 4.0 scale) are eligible to apply. The Anne Bicknell Scholarship is offered on an annual basis (based upon available findings) and an application, essay and references are required.

### Advisement

Students planning to complete the program in gerontology will declare a major within a department. Major responsibility for advisement will rest within this department. However, the coordinator will assist students in the selection of gerontology courses to fulfill either the certificate or minor in gerontology. Students must assume responsibility for fulfilling all requirements for graduation.

## Requirements for the Certificate

With the assistance of an advisor from the Gerontology Program, students will select four 3-credit courses approved from the gerontology specialization and will conduct a 3-credit internship in an organization which addresses the needs of older adults.

- ERS 434 - Physiology of Aging and Physical Activity Credits: 3



- GERO 265 - Aging and the Older Person Credits: 3
- GERO 414 - Death and Dying Credits: 3
- GERO 425 - Women and Aging Credits: 3
- GERO 450 - Gerontology Internship Credits: Up to 12
- GERO 465 - Seminar in Gerontology Credits: 3
- GERO 490 - Independent Study Credits: 1 to 3
- HLTH 314 - Nutrition and Health Credits: 3
- NURS 498 - Selected Topics Credits: 3
- PE 364 - Biomechanics of Individuals with Disabilities Credits: 3
- PREE 420 - Therapeutic Recreation for Elderly Populations Credits: 3
- PROF 342 - Sociology of Aging Credits: 3
- PSYC 365 - Psychology of Aging Credits: 3

## Counseling & Development

104 Carruth-Rizza Hall  
724-738-2035

Counseling & Development

The Department of Counseling and Development trains practitioners to deliver quality services to clients and students and to be reflective, ethical and competent in serving their diverse community. Department programs include community and school counseling and student affairs in higher education. We offer exemplary programs to a diverse group of students as well as in-service and continuing education to post-Master's students. Our students are prepared according to professionally accepted standards and, where appropriate, for licensure/ certification in their field of study

### **Chair**

Michael Ignelzi

### **Secretary**

Lorraine Vinski

### **Faculty**

William Evans, Jane Hale, Michael Ignelzi, Stacy Jacob, Gerard Love, Mary Frances Russo, Donald Strano, Mary Whitfield Williams, Adelle Williams

Certification programs are available only at the graduate level and include a Master of Education program in School Counseling.

In addition, at the graduate level the department offers Master of Arts programs in Community Counseling, with specialization in youth, adult, and older adult counseling, and also offers a Master of Arts in Student Affairs in Higher Education with an option for specialization in college counseling. (For description of graduate programs see the Graduate Catalog.)

## Minor in Gerontology

Gerontology Program

**Coordinator**

Adelle Williams

*"My experience with the SRU gerontology program fostered my interest in aging. The education was the key that unlocked the door to my career in gerontology."*

**Michelle Zanicky Jamieson**

Gerontology is an interdisciplinary specialization that focuses on aging and the aging process. This specialization is designed to enhance the understanding of aging and enrich interactions among generations. It is a valuable adjunct for those preparing to work directly with, or indirectly for, older persons. Job opportunities for students who have academic preparation in gerontology are available in community agencies servicing the older adult, long term care facilities and hospitals, senior citizen living facilities, and community recreation and senior centers. The program is open to students in any major. Students may decide to complete the requirements for a certificate in gerontology or a gerontology minor.

Students conduct an internship in an organization which provides services to older adults and students actively participate in a service learning project. Opportunities to participate in campus and community activities are available.

Sigma Phi Omega, the national gerontology honorary society recognized students' exemplary scholastic accomplishments in the field of aging. Undergraduate students with a GPA of 3.3 or above ( on a 4.0 scale) are eligible to apply. The Anne Bicknell Scholarship is offered on an annual basis (based upon available findings) and an application, essay and references are required.

**Advisement**

Students planning to complete the program in gerontology will declare a major within a department. Major responsibility for advisement will rest within this department. However, the coordinator will assist students in the selection of gerontology courses to fulfill either the certificate or minor in gerontology. Students must assume responsibility for fulfilling all requirements for graduation.

## Requirements for the Minor

Students must take a total of five 3-credit courses as well as a 3-credit internship related to major area of interest and involving the elderly unless they have taken such an internship in their major.

To enter the gerontology program, students must submit an application form requiring the advisor's signature and a minor declaration form. A quality point average of 2.500 is required at the end of the semester prior to internship. Students are to notify the gerontology office when they have completed all of the requirements.

## Required Gerontology Courses

- GERO 265 - Aging and the Older Person Credits: 3
- GERO 450 - Gerontology Internship Credits: Up to 12

## Additional Gerontology Courses

Choose at least one of the following:

- GERO 414 - Death and Dying Credits: 3
- GERO 425 - Women and Aging Credits: 3
- GERO 465 - Seminar in Gerontology Credits: 3

- GERO 490 - Independent Study Credits: 1 to 3

## Health/Science Courses

Choose at least one of the following:

- ERS 434 - Physiology of Aging and Physical Activity Credits: 3
- HLTH 314 - Nutrition and Health Credits: 3
- NURS 498 - Selected Topics Credits: 3
- PREE 420 - Therapeutic Recreation for Elderly Populations Credits: 3
- PE 364 - Biomechanics of Individuals with Disabilities Credits: 3

## Psychology / Sociology Courses

Choose at least one of the following:

- PROF 342 - Sociology of Aging Credits: 3
- PSYC 365 - Psychology of Aging Credits: 3

# Elementary Education/Early Childhood

104 McKay Education Building  
724-738-2042

Elementary Education/Early Childhood

The Department of Elementary/Early Childhood Education's mission statement is aligned with and reflective of the College mission, but is designed to specify the particular goals of the program. The goal of the Elementary Education/Early Childhood Department is to equip our graduates to meet the professional challenges of classrooms and school communities for the 21st century.

### **Chair**

Lee Williams

### **Assistant Chair**

Marilyn Yensick

### **Secretaries**

Karen Baker

Brenda Fedokovitz

### **Faculty**

Susan Argyle, Michelle Amodei, Kim Creasy, Carmine DeCarlo, Sherry DuPont, Cinda Findlan, Thomas Gordon, Rose Heilman-Houser, Herbert Hunt, Geraldine Jenny, Elisabeth Johnston, James Preston, Suzanne Rose, Anne Slanina, Robert Snyder, Pamela Soeder, Mary Vetere, Christine Walsh, Deborah Wells, Judy Werner, Lee Williams, Marilyn Yensick, and Linda Zane

The Department of Elementary Education/Early Childhood will offer an undergraduate certification program in elementary education until August 2013 and will offer certification in Early Childhood Education (PK-4) after then. Prospective elementary teachers take balanced course work that provides a broad educational experience. Included are

liberal studies courses as well as both professional and elementary/ early childhood education courses. Students (in this certification area) are required to complete 20 observation hours with young children during the freshman and sophomore years, in a diverse setting. This early experience is followed by numerous field experiences in early childhood and elementary classrooms beginning sophomore year as well as student teaching during the senior year. Students are offered the opportunity to complete part of their student teaching in an international or urban setting. The primary objective of the elementary/early childhood education program is to develop competent, caring and effective state-of-the-art teachers, prepared to teach each child to high standards.

## **Multiple Certification Programs**

While not required, it is strongly recommended that students complete a second area of certification, a minor, or an area of concentration in addition to elementary education. Our students have completed additional certifications in early childhood education, special education, environmental education and modern languages. Students have also minored in many areas including dance, history, math and Spanish. Students seeking multiple certifications should declare their intent as early as possible in their academic career and recognize that this may require additional credits beyond those required for the baccalaureate degree. Students seeking multiple certifications may expect to complete student teaching experiences in each of the certification areas. Specific requirements for additional certification, minors, and areas of concentration are available from advisors and the Department of Elementary Education/Early Childhood office, room 104 McKay Education Building. Students are encouraged to work closely with their academic advisor in choosing and declaring these other options.

## **Post-Baccalaureate Programs**

Persons possessing a bachelor's degree may apply for admission to the post-baccalaureate program leading to elementary education certification. This program is designed for those who have completed degree requirements in a non-education major or who desire a second certification after graduation.

The post-baccalaureate program includes up to 80 credits of coursework for non-licensed applications, with an accelerated program for middle-level or special education certified applicants and a required practicum. The practicum must be completed in an elementary/early childhood classroom under the supervision of a university faculty member, even if the student is certified in another area.

## **PK-4 Early Childhood Education**

Elementary Education/Early Childhood

### **Courses Required Outside Major**

These courses will also fulfill some Liberal Studies Requirements

- ENGL 101 - Introduction to College Writing Credits: 3
- ENGL 103 - College Writing II Credits: 3
- ENGL 210 - Interpreting Literature Credits: 3
- COMM 200 - Public Speaking Credits: 3
- MATH 210 - Elementary Mathematics I Credits: 3
- MATH 310 - Elementary Mathematics II Credits: 3
- PHYS 101 - Concepts of Science I/ Lab Credits: 3

## Early Childhood Education Courses

Courses may be taken prior to admittance to College of Education

- ELEC 100 - Early Childhood Education Theory & Practice Credits: 3
- ELEC 200 - Child Development Typical Credits: 3
- ELEC 285 - Integrating Creative Expression through the Arts Credits: 3
- PE 243 - Educational Movement in Health & Wellness Credits: 3
- OR
- DANC 223 - Creative Dance for Children Credits: 2
- SPED 121 - High Incidence Disabilities Credits: 3

## Diversity Block

- ELEC 230 - Field-Based Child Development Typical Credits: 3
- ELEC 237 - ELL Strategies and Practice for Early Childhood Education Credits: 3
- ELEC 281 - Family and Community Diversity and Partnerships Credits: 3

## Early Literacy Block

- ELEC 214 - Developmental Formal & Informal Assessment Credits: 3
- ELEC 238 - Literacy Practices for the Emergent Learner(PreK-grade 1) Credits: 3

## Early Childhood Major Courses - Block 1

Must be admitted to Teacher Candidacy and have completed both Diversity and Early Literacy blocks

- ELEC 311 - Mathematics & Literacy Teaching Lab Pre K - 4 Credits: 1
- ELEC 330 - Literacy Practices for the Developing Learner, Grades 2 - 4 Credits: 3
- ELEC 340 - Mathematics Methods and Strategies for PRE K - 4 Teachers Credits: 3

## Block 2

Must have completed Block 1

- ELEC 460 - Instructional Strategies for Science and Technology Credits: 3
- ELEC 470 - Social Studies & Citizenship Credits: 3
- ELEC 420 - Early Childhood Field Experience Credits: 3
- ELEC 440 - ECE Curriculum Integration: Theory into Practice Credits: 3

## Other Required Coursework for Graduation

Other requirements for certification and graduation are available in the College of Education

- SPED 325 - Interventions in the Inclusive Classroom Credits: 3
- SPED 430 - Positive Behavior Strategies Credits: 3
- ELEC 480 - Assessment and Differentiating Literacy Credits: 3

- ELEC 348 - Leadership, Advocacy & Program Development Credits: 3
- ELEC 455 - Student Teaching: Early Childhood Credits: 12, 6, 3

## Physical Education

109 Morrow Field House  
724-738-2072

Physical Education

Vision for the future---What our students will do

Graduates of the SRU Physical Education Department will be leaders who educate and empower individual to be physically active and healthy and who advocate the benefits associated with a healthy lifestyle.

Mission-Current---Day to Day---What we do

Prepare teacher candidates, who are passionate about health and physical education, promote lifelong physical activity, cognitive function, and overall academic achievement through a standards-based curriculum.

### Chair

Randy Nichols

### Secretary

Sis Warcup

### Faculty

Pamela Arnhold, Robert Arnhold, Wei Bian, Hannah Brewer, Martin Donahue, Wendy Fagan, Ethan Hull, Dallas Jackson, Betsy Kemeny, Istvan Kovacs, Joanne Leight, Wenhao Liu, Marybeth Miller, Randall Nichols, Robert Ogoreuc, Lou Slautterback, Jeffrey Smith, Lynn Spadine-Taylor, Traci Zillifro

The Department of Physical Education offers a major degree program in Health and Physical Education. The one focus within the department is the teacher certification program that prepares students to teach both health and physical education in grades K-12.

Students are also encouraged to include an additional minor in one of the following: aquatics or coaching. The total program is designed to provide a comprehensive knowledge base in health and physical education pedagogy.

An additional focus within the department is the Leadership in Physical Activity. The non-teaching track will prepare professionals to plan, implement and evaluate physical activity programs in the community. Statistics project the employment of health educators will grow faster than the average for all occupations through 2018. These careers continue to grow as a direct result of healthcare costs and increasing need for awareness of disease prevention and health promotion. This results in the *Need for Aquatic Professionals - Adapted Physical Activity Professionals - Outdoor Professionals - and Coaching Education Professionals*.

## Adapted Physical Activity

Adapted Physical Activity

*"I cannot imagine the last four years of my life without the incredible experiences of this minor. Not only was it an incredible learning experience; but it was an unforgettable experience of what it means to touch peoples' lives and be touched back in the best possible way and that is through the heart."*

**Marla Aron '02**

The Adapted Physical Activity program is a minor designed to prepare students in exercise science, teacher education, therapeutic recreation, and athletic training programs to assess, develop, implement, and evaluate programs of physical education and fitness exercise for individuals with disabilities. The Americans with Disabilities Act (ADA) and the Individuals with Disabilities Education Act (IDEA) are two federal laws that provide access and education to all walks of life for people with disabilities. This will result in an increase of participation and subsequent knowledge for planning appropriate programs for individuals with disabilities.

Employers in school districts, fitness agencies, and sport organizations are actively recruiting individuals with experience working with people with disabilities. Graduates of the program have been extremely successful securing jobs in their chosen fields or receiving acceptance into graduate programs in adapted physical activity, physical therapy, or other related professions.

Students will acquire knowledge and skills through a comprehensive program of class and practical experiences in this 27-credit program. Students can also take advantage of participating in state and national conferences, developing grant writing skills and supervisory roles in one or more of the community service-learning practical programs.

\*Students entering the MS degree will earn 21 credits in the minor. ERS463 and ERS468 will count toward graduate credits as ERS663 and ERS668.

## Requirements for the Minor in Adapted Physical Activity

### Theory Core Courses - Credits: 27

- PE 250 - Equine Assisted Activities Credits: 3
- PE 262 - Adapted Aquatics Credits: 3
- PE 227 - Introduction to Adapted Physical Activity Credits: 3
- PE 287 - Adapted and Therapeutic Exercise Credits: 3
- PE 355 - Assessment Techniques in Adapted Physical Activity Credits: 3
- PE 364 - Biomechanics of Individuals with Disabilities Credits: 3
- PE 266 - Disability Sport in the 21st Century: A Global Perspective Credits: 3
- PE 460 - Program Design in Adapted Physical Activity Credits: 3
- PE 473 - Professionalism, Advocacy, and Leadership in Physical Activity Credits: 3

## Minor in Adventure Fitness

Department of Physical and Health Education

### Adventure Fitness Required Courses - Credits: 12

- PE 241 - Outdoor Pursuits Credits: 3
- PE 332 - Administration and Management of Physical Activity Programs Credits: 3
- PE 334 - Applied Methodologies in Adventure Activities Credits: 3
- PE 342 - Wellness through Movement Credits: 3

## Adventure Fitness Elective Courses - Credits: 6

Choose 6 credits from the following:

- PE 123 - Stand-Up Paddleboarding Credits: 2
- PE 125 - Bicycling Credits: 2
- PE 182 - Introduction to Rock Climbing Credits: 1
- PE 184 - Adventure Games Credits: 1
- PE 186 - Cross Country Skiing Credits: 2
- PE 188 - Sailing Credits: 1
- PE 236 - Introduction to Kayaking Credits: 2
- PE 272 - Enhancing Fitness through Running and Walking Credits: 2
- PE 349 - Skin and Scuba Diving Credits: 1

## Minor in Aquatics

Physical Education Department

It is the student's responsibility to meet the requirements as outlined herein. The faculty advisor for the Aquatics minor, Mr. Robert E. Ogoreuc, will offer assistance.

## Requirements for the Minor - Credits: 19

### Aquatic Core - Credits: 11

- PE 107 - Aquatic Fundamentals Credits: 3
- PE 262 - Adapted Aquatics Credits: 3
- PE 263 - Lifeguarding Credits: 3
- PE 348 - Aquatic Leadership Credits: 2

### Aquatic Instructor Courses - Credits: 6

- PE 363 - Lifeguarding Instructor Credits: 3
- PE 446 - Water Safety Instruction Credits: 3

### Aquatic Electives - Credits: 2

Select two courses:

- PE 187 - Flat-water Canoe Tripping Credits: 1
- PE 188 - Sailing Credits: 1
- PE 189 - Basic Canoeing Credits: 1
- PE 236 - Introduction to Kayaking Credits: 2
- PE 345 - Teaching and Coaching of Water Polo Credits: 3
- PE 349 - Skin and Scuba Diving Credits: 1



## **Minor in Coaching - Credits: 19-20**

Physical Education Department

Three semester hours of practicum experiences are required for the Minor in Coaching. Practicum experiences include working with one athletic team (college, high school, or community) for 50 hours. The student must complete three different experiences (one credit each), and PETE majors must complete all practicum experiences prior to student teaching. The student must have completed one coaching minor elective course prior to the first practicum experience.

Students must have current TB test and Act 34 and Act 151 Clearances FBI finger print check if coaching experiences take place in public schools.

Students must possess and maintain current Red Cross CPR for the Professional Rescuer and Community First Aid certifications.

### **Coaching Minor Requirements - Credits: 11**

- PE 110 - Strength/Resistance Training Credits: 1
- PE 270 - Psychological and Sociological Bases of Sport Credits: 3
- PE 301 - Sports Officiating Credits: 2
- PE 369 - Philosophy and Psychology of Coaching Credits: 3
- PE 383 - Motor Development and Learning Credits: 3

### **Required Practicum Experience - Must be taken 3 times - Credits: 3**

- PE 166 - Coaching Practicum Credits: 1

### **Coaching Minor Electives - Credits: 5-6**

Choose two courses from the following:

- PE 106 - Gymnastics Fundamentals Credits: 3
- PE 230 - Teaching and Coaching of Track and Field Credits: 3
- PE 242 - Fitness Education Credits: 3
- PE 345 - Teaching and Coaching of Water Polo Credits: 3
- PE 356 - Net/Wall Activities and Games Credits: 3
- PE 357 - Territory Activities and Games Credits: 3
- PE 358 - Lifetime/Leisure Activities and Games Credits: 3
- PE 359 - Striking/Fielding Activities and Games Credits: 2
- PE 446 - Water Safety Instruction Credits: 3
- ERS 302 - Exercise Leadership: Resistance Training Credits: 3

## **Physical and Health Education Certification (Post-Baccalaureate Program)**

## Requirements

Persons possessing a bachelor's degree may apply for admission to the post-baccalaureate program leading to health and physical education teacher certification. This program is designed for those who have completed degree requirements in a non-education major or who desire a second certification after graduation.

The post-baccalaureate program includes up to 96 credits of coursework, including a required student teaching experience.

## **Physical and Health Education: Teacher Education (BSEd)**

Physical and Health Education

### Requirements for the Bachelor of Science in Education - Teacher Education

The requirements leading to teacher certification in K-12 health and physical education parallel the accreditation standards and guidelines of the National Association of Sport and Physical Education and of the Pennsylvania Department of Education. The curriculum is designed to prepare future health and physical education teachers for the challenge of teaching K-12 students about the importance of physical activity and health.

The specific course of study and the requirements leading to teacher certification administered by the Department of Physical Education are available in the departmental office, from the student's advisor, online at [www.sru.edu/pe](http://www.sru.edu/pe), and from the Teacher Education Policy Manual, available in 105 McKay Education Building and on the College of Education homepage.

The guidelines on admission, professional conduct, and student teaching for this department are subject to change. Current requirements for the College of Education as a whole may be found in the Teacher Education Policy Manual.

### Physical Education Methods - Credits: 26

PE 152, 274, 352, 452 must be taken in sequence. Acceptance to Teacher Education is required for PE 352, 452, 468, and 455.

- PE 152 - Practical Introduction to Teaching Physical Education Credits: 3
- PE 274 - Assessment Strategies in Physical Education Credits: 3
- PE 352 - Secondary Physical Education Teaching Methods Credits: 3
- PE 452 - Field Experience in Elementary PE Methods Credits: 3
- PE 468 - Senior Seminar in Physical and Health Education Teacher Education Credits: 2
- PE 455 - Student Teaching - Physical Education Credits: 12

### Physical Education Professional - Credits: 22

Acceptance to Teacher Education required for PE 383.

- CDEV 248 - Human Development and Education Credits: 3

- PE 191 - Foundations of Physical Education Credits: 2
- PE 192 - Diversity Issues in Physical Education Credits: 2
- PE 202 - Technology for Physical Education Teacher Education Credits: 3
- PE 227 - Introduction to Adapted Physical Activity Credits: 3
- PE 360 - Anatomical and Physiological Bases of Physical Education Credits: 3
- PE 383 - Motor Development and Learning Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 342 - Educational Psychology for Diverse Learners Credits: 3

## Physical Activity Theory - Credits 27

- DANC 105 - Dance Fundamentals Credits: 2
- PE 106 - Gymnastics Fundamentals Credits: 3
- PE 107 - Aquatic Fundamentals Credits: 3
- PE 141 - Personal Physical Fitness Credits: 1
- PE 241 - Outdoor Pursuits Credits: 3
- PE 242 - Fitness Education Credits: 3
- PE 243 - Educational Movement in Health & Wellness Credits: 3
- PE 356 - Net/Wall Activities and Games Credits: 3
- PE 357 - Territory Activities and Games Credits: 3
- PE 358 - Lifetime/Leisure Activities and Games Credits: 3
- PE 359 - Striking/Fielding Activities and Games Credits: 2

## Health Professional Courses - Credits: 9

CPR and First Aid Instructor Competency required. PE 262, 362, and 462 must be taken in sequence. Acceptance to Teacher Education required for HLTH 362 and 462.

- PE 268 - Introduction to School and Community Health Credits: 3
- PE 362 - School Health Education Teaching Methods Credits: 3
- PE 462 - Field Experience in School Health Education Methods Credits: 3

## Physical Education: Leadership in Physical Activity

The Physical Education - Leadership in Physical Activity track will prepare professionals to plan, implement, and evaluate physical activity programs outside of the school environment. The physical activity track has intellectual value in academia while addressing emerging regional and national employment trends, student interests and preferences, and community need. The uniqueness of this track centers around a personnel preparation core combined with students preferred choice of two of four well-established and emerging specialty areas.

## Professional Core - credits: 24

- PE 131 - Foundations of Leadership in Physical Activity Credits: 3
- PE 231 - Strategies for Teaching Physical Activity Credits: 3
- PE 202 - Technology for Physical Education Teacher Education Credits: 3
- PE 331 - Evidence-based Physical Activity Practices Credits: 3
- PE 332 - Administration and Management of Physical Activity Programs Credits: 3

- PE 473 - Professionalism, Advocacy, and Leadership in Physical Activity Credits: 3
- PE 450 - Internship in Physical Activity Credits: 1-12

## Fitness / Health - Credits: 10

- PE 141 - Personal Physical Fitness Credits: 1
- PE 242 - Fitness Education Credits: 3
- PE 342 - Wellness through Movement Credits: 3
- PE 360 - Anatomical and Physiological Bases of Physical Education Credits: 3

## Professional Interest Areas - Credits: 24

Select two blocks from A, B, C, D

### BLOCK A: Adapted Physical Activity - Credits: 12

- PE 227 - Introduction to Adapted Physical Activity Credits: 3
- PE 287 - Adapted and Therapeutic Exercise Credits: 3
- PE 364 - Biomechanics of Individuals with Disabilities Credits: 3
- PE 460 - Program Design in Adapted Physical Activity Credits: 3

### BLOCK B: Aquatics - Credits: 12

required courses - credits: 8

- PE 107 - Aquatic Fundamentals Credits: 3
- PE 348 - Aquatic Leadership Credits: 2
- PE 446 - Water Safety Instruction Credits: 3

select minimum of 4 credits from the following:

- PE 188 - Sailing Credits: 1
- PE 189 - Basic Canoeing Credits: 1
- PE 236 - Introduction to Kayaking Credits: 2
- PE 262 - Adapted Aquatics Credits: 3
- PE 263 - Lifeguarding Credits: 3
- PE 345 - Teaching and Coaching of Water Polo Credits: 3
- PE 349 - Skin and Scuba Diving Credits: 1

### BLOCK C: Outdoor Adventure Fitness - Credits: 12

required courses - credits: 8

- PE 186 - Cross Country Skiing Credits: 2
- PE 236 - Introduction to Kayaking Credits: 2

- PE 241 - Outdoor Pursuits Credits: 3

select minimum of 4 credits from the following:

- PE 125 - Bicycling Credits: 2
- PE 182 - Introduction to Rock Climbing Credits: 1
- PE 184 - Adventure Games Credits: 1
- PE 188 - Sailing Credits: 1
- PE 272 - Enhancing Fitness through Running and Walking Credits: 2
- PE 349 - Skin and Scuba Diving Credits: 1

## BLOCK D: Coaching Education - Credits: 12

required courses - credits: 9

- PE 110 - Strength/Resistance Training Credits: 1
- PE 270 - Psychological and Sociological Bases of Sport Credits: 3
- PE 301 - Sports Officiating Credits: 2
- PE 369 - Philosophy and Psychology of Coaching Credits: 3

select minimum of 3 credits from the following:

- PE 230 - Teaching and Coaching of Track and Field Credits: 3
- PE 266 - Disability Sport in the 21st Century: A Global Perspective Credits: 3
- PE 356 - Net/Wall Activities and Games Credits: 3
- PE 357 - Territory Activities and Games Credits: 3
- PE 358 - Lifetime/Leisure Activities and Games Credits: 3
- PE 359 - Striking/Fielding Activities and Games Credits: 2

## Secondary Education/Foundations of Education

114 McKay Education Building  
724-738-2041

Secondary Education/Foundations of Education

The Department of Secondary Education/Foundations of Education is committed to the development of professional educators through the careful integration of theory and practice. Moreover, it is SEFE's position that there is an inseparable fusion between teachers' professional identities and their personal identities. Teaching is a reflective process that takes place within a diverse social, economic, political, and cultural complex that mandates continual development of the teacher. Since teaching does not take place in a vacuum, it is part of our mission to provide opportunities for the total cognitive and affective development of our students so that they may become productive members of a teacher/ scholar community who will conduct research and disseminate knowledge that will enhance the education of students at all levels.

### Chair

Edwin P. Christmann

**Secretary**

Germaine Newstrom

**Faculty**

Richard Altenbaugh, Padma Anand, John Badgett, Edwin Christmann, Jeffrey Lehman, Mark Mraz, Junko Yamamoto, John Hicks

The mission of the department is to provide secondary education majors with the knowledge, and skills to succeed in today's changing classrooms. Moreover, the merging of theory with practice and the building of a solid background in foundations of education for all middle and secondary education majors are additional hallmarks.

Prospective secondary school teachers are required to take for certification, coursework in an academic discipline that is equivalent to a major in that discipline. Successful completion of a prescribed program and certification examinations are required for eligibility for certification by the Pennsylvania Department of Education.

A secondary education major is advised by a faculty member in the Department of Secondary Education/Foundations of Education. Students may choose to attain dual certification, that is, to become eligible to teach in more than one subject area. The decision to attempt this dual certification should be made as early as possible in order to facilitate scheduling. It is the responsibility of the students to understand the certification requirements and to schedule all required courses.

## **Requirements for the Bachelor of Science in Education**

The department uses both state and national guidelines to continually update its accredited programs. Therefore, the specific course of study and the most recent requirements leading to teacher certification in this department are available in the departmental office or from the student's advisor. See also Teacher Education Policy Manual, available in 105 McKay Education Building and on the College of Education homepage. Areas of teacher certification in secondary education at the baccalaureate level include:

English  
French  
Social Studies - History  
Spanish

Areas of teacher certification in middle level education at the baccalaureate level include:

English- Language Arts  
Social Studies  
Science  
Mathematics

Areas of Teacher Certification in Secondary Education at the master's level:

Biology  
Chemistry  
Earth and Space Science  
General Science  
Mathematics  
Physics  
English  
Social Studies

Certification in these latter areas is available **only** at the graduate level as part of the master of education degree program. For more information about this program, including prerequisites, contact the Secondary Education/Foundations of Education office in 114 McKay Education Building.

## **Education - English (BSEd)**

Secondary Education/ Foundations of Education

This program track prepares students for careers teaching English in secondary schools. Requirements for the Major in Secondary Education (7-12) include a combination courses and student teaching experiences that lead to certification for a state-approved teaching license.

Teacher Education Policy Manual

### **Major Requirements**

Some courses within the major requirements can also be used as Liberal Studies requirements. See Major Curriculum Guide.

### **Professional Education - 46 credits**

SPED315 and SEFE455 are taken together in the student teaching semester.

- CDEV 248 - Human Development and Education Credits: 3
- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SEFE 320 - Teaching of Language Arts in Secondary Schools Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 329 - Methods of Instruction in Secondary Content Areas Credits: 3
- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SEFE 342 - Educational Psychology for Diverse Learners Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3
- SEFE 426 - Practicum in Secondary Education Credits: 1
- SEFE 455 - Student Teaching - Secondary Education Credits: 12
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 315 - Special Education Issues in Diverse Secondary Classrooms Credits: 3

### **Specialization (Major Certification Area)**

#### **Writing Specialization: Required - 9 credits**

- ENGL 204 - Composition and Rhetoric Credits: 3

- ENGL 235 - Writing for Non-Print Media Credits: 3
- ENGL 305 - Practicum: Teaching Writing Credits: 3

### Language Requirement - 9 credits

- ENGL 230 - Introduction to Linguistics and Grammar Credits: 3
- ENGL 331 - Historical Development of the English Language Credits: 3
- ENGL 332 - Modern English Grammar and Syntax Credits: 3

### Required English Courses - 24 credits

- ENGL 217 - Introduction to Shakespeare Credits: 3  
OR
- ENGL 389 - Stratford Shakespeare Tour Credits: 3
- ENGL 263 - World Literature Credits: 3
- ENGL 317 - British Literature I Credits: 3
- ENGL 318 - British Literature II Credits: 3
- ENGL 319 - American Literature I Credits: 3
- ENGL 320 - American Literature II Credits: 3
- ENGL 328 - Young Adult Literature Credits: 3
- ENGL 403 - Literary and Cultural Theory Credits: 3

### Communication Courses - 6 credits

Some courses may be used in liberal studies and major.

- COMM 215 - Small Group Communication Credits: 3  
OR
- COMM 217 - Intercultural Communication Credits: 3
- COMM 362 - Mass Media and Society Credits: 3

## **Education - French (BSEd)**

### Secondary Education / Foundations of Education

This program track prepares students for careers teaching French in all school levels. Requirements for the Major in Secondary Education (K-12) include a combination of education courses and student teaching experiences that lead to certification for a state-approved teaching license.



## Professional Education

SEFE455 and SPED315 are taken together in the student teaching semester.

- CDEV 248 - Human Development and Education Credits: 3
- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SEFE 323 - Teaching World Languages Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 329 - Methods of Instruction in Secondary Content Areas Credits: 3
- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SEFE 342 - Educational Psychology for Diverse Learners Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3
- SEFE 426 - Practicum in Secondary Education Credits: 1
- SEFE 455 - Student Teaching - Secondary Education Credits: 12
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 315 - Special Education Issues in Diverse Secondary Classrooms Credits: 3

## Basic Skills Courses

Exemption is possible from these courses according to performance on the placement test. CLEP, AP, and OPI credits are accepted.

- FREN 101 - French Language and Culture I Credits: 3
- FREN 102 - French Language and Culture II Credits: 3
- FREN 103 - French Language and Culture III Credits: 3
- FREN 201 - French Conversation 1 Credits: 3
- FREN 220 - Reading in French Credits: 3

## Required French Courses

- FREN 300 - French Grammar and Composition 1 Credits: 3
- FREN 320 - Main Currents in French Literature Credits: 3
- FREN 350 - French Linguistics and Phonetics Credits: 3
- FREN 400 - French Grammar and Composition 2 Credits: 3

Choose one of the following conversation classes:

- FREN 301 - French Conversation 2 Credits: 3
- FREN 401 - French Conversation 3 Credits: 3

Choose one of the following civilization courses:

- FREN 305 - French Civilization Credits: 3
- FREN 306 - Modern France and Francophone Identities Credits: 3

Choose one of the following courses:

- FREN 402 - Eighteenth-Century Novel Credits: 3
- FREN 403 - Nineteenth-Century French Literature Credits: 3
- FREN 404 - Modern French Literature Credits: 3
- FREN 411 - Literature of the Classical Period Credits: 3

## French Electives

For students who exempt any of the required core. Any French course may be used in this block except FREN210. Choose as many electives as necessary to reach 30 total credits of French courses.

## Education - Social Studies - History (BSEd)

Secondary Education / Foundations of Education

This program track prepares students for careers teaching Social Studies / History in secondary schools. Requirements for the Major in Secondary Education (7-12) include a combination of education courses and student teaching experiences that lead to certification for a state-approved teaching license.

Teacher Education Policy Manual

## Major Requirements

Some courses within the major requirements can also be used as Liberal Studies requirements. See Major Curriculum Guide.

## Professional Education

SPED315 and SEFE455 are taken together in the student teaching semester.

- CDEV 248 - Human Development and Education Credits: 3
- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SEFE 319 - Teaching of Social Studies in Secondary Schools Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 329 - Methods of Instruction in Secondary Content Areas Credits: 3
- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3
- SEFE 426 - Practicum in Secondary Education Credits: 1
- SEFE 455 - Student Teaching - Secondary Education Credits: 12
- SPED 121 - High Incidence Disabilities Credits: 3

- SPED 315 - Special Education Issues in Diverse Secondary Classrooms Credits: 3

Choose two of the following World History courses:

- HIST 151 - Ancient and Medieval World Credits: 3
- HIST 152 - Rise of the Modern World Credits: 3
- HIST 153 - Contemporary World History Credits: 3

Choose two of the following US History courses:

- HIST 201 - Colonial America to 1815 Credits: 3
- HIST 202 - United States, 1815-1920 Credits: 3
- HIST 203 - U.S. History Since 1920 Credits: 3

Required Course

- HIST 205 - The Historian's Craft Credits: 3

Certification Area

All grades must be "C" or above.

21 Credits from the group of American History, Non-Western History and European History. Each area must have a minimum of 6 credits and one area must have a minimum of 9 credits.

Required PA History

- HIST 435 - Pennsylvania Credits: 3

American History - Credits: 6-9

Choose at least 6 credits from the following:

- HIST 304 - American Military History Credits: 3
- HIST 330 - Warfare in the Twentieth Century Credits: 3
- HIST 335 - Outstanding Americans Credits: 3
- HIST 337 - Indians of the United States Credits: 3
- HIST 340 - The Historical and Political Legacies of the Vietnam Era Credits: 3
- HIST 344 - The American City Credits: 3
- HIST 350 - The American Civil War Credits: 3
- HIST 351 - Latin America to 1830 Credits: 3
- HIST 352 - Latin America Since 1830 Credits: 3
- HIST 437 - The American West Credits: 3
- HIST 442 - Studies in U.S. Women's History Credits: 3
- HIST 445 - Americans and the Environment Credits: 3
- HIST 451 - U.S. Foreign Relations to 1890 Credits: 3

- HIST 453 - American Constitutional History and Law Credits: 3
- HIST 455 - Economic U.S. History Credits: 3

## Non-Western History - Credits: 6-9

Choose at least 6 credits from the following:

- HIST 362 - Africa North of the Zambezi Credits: 3
- HIST 363 - Southern Africa Credits: 3
- HIST 370 - History and the Bible Credits: 3
- HIST 371 - History of Jews Credits: 3
- HIST 376 - Modern Japan Credits: 3
- HIST 380 - Egyptology Credits: 3
- HIST 381 - East Asian Military Traditions Credits: 3
- HIST 382 - Modern Asian Pacific Rim Credits: 3
- HIST 386 - Modern China Credits: 3
- HIST 462 - The Contemporary Middle East Credits: 3

## European History - Credits: 6-9

Choose at least 6 credits from the following:

- HIST 305 - Russia to 1855 Credits: 3
- HIST 306 - Russia Since 1855 Credits: 3
- HIST 319 - History of Women to 1750 Credits: 3
- HIST 320 - History of Women from 1750 to the Present Credits: 3
- HIST 322 - Germany in the Twentieth Century Credits: 3
- HIST 331 - England to 1689 Credits: 3
- HIST 332 - Britain Since 1689 Credits: 3
- HIST 333 - Medieval Church Credits: 3
- HIST 422 - Ancient Greece Credits: 3
- HIST 424 - The Middle Ages Credits: 3
- HIST 426 - French Revolution and Napoleon Credits: 3
- HIST 427 - Nineteenth Century Europe Credits: 3

## Required courses outside History

The courses below may also be used in Liberal Studies. Always check with your Academic Adviser prior to scheduling.

## Required Professional Studies Courses

- PROF 106 - Race and Ethnic Diversity in the USA Credits: 3
- PROF 202 - Introduction to Anthropology Credits: 3

## Required Economics Course

- PROF 105 - Economics of Social Issues Credits: 3

## Required Geography Courses

Choose 2 Geography courses.

## Required Political Science Courses

POLS 101 is required and one other Political Science course.

## Required Psychology Course

- PSYC 105 - Introduction to Psychology Credits: 3

## Education - Spanish (BSEd)

Secondary Education / Foundations of Education

This program track prepares students for careers teaching Spanish in all school levels. Requirements for the Major in Secondary Education (K-12) include a combination of education courses and student teaching experiences that lead to certification for a state-approved teaching license.

Teacher Education Policy Manual

## Professional Education

SEFE 455 and SPED 315 are taken in the same semester.

- CDEV 248 - Human Development and Education Credits: 3
- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SEFE 323 - Teaching World Languages Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 329 - Methods of Instruction in Secondary Content Areas Credits: 3
- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SEFE 342 - Educational Psychology for Diverse Learners Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3
- SEFE 426 - Practicum in Secondary Education Credits: 1
- SEFE 455 - Student Teaching - Secondary Education Credits: 12
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 315 - Special Education Issues in Diverse Secondary Classrooms Credits: 3

## Basic Skills Courses

Exemption is possible from these courses according to performance on the placement test.

- SPAN 101 - Spanish Language & Culture I Credits: 3
- SPAN 102 - Spanish Language & Culture II Credits: 3
- SPAN 103 - Spanish Language & Culture III Credits: 3
- SPAN 200 - Spanish Grammar and Composition I Credits: 3
- SPAN 201 - Spanish Conversation I Credits: 3
- SPAN 220 - Reading in Spanish Credits: 3

## Required Spanish Courses

- SPAN 300 - Spanish Grammar and Composition II Credits: 3
- SPAN 350 - Spanish Linguistics and Phonetics Credits: 3
- SPAN 400 - Spanish Grammar and Composition III Credits: 3
- SPAN 401 - Spanish Conversation III Credits: 3

## Choose one of the following conversation classes:

- SPAN 301 - Spanish Conversation II Credits: 3
- SPAN 302 - Communication in Spanish for the Elementary Classroom Credits: 3

## Choose one of the following civilization courses:

- SPAN 305 - Spanish Civilization Credits: 3
- SPAN 307 - U.S. Latino Cultures Credits: 3
- SPAN 309 - Hispanic Civilization for the K-12 Classroom Credits: 3
- SPAN 326 - The Civilization of Spanish America: Precolumbian to 19th Century Credits: 3
- SPAN 328 - The Civilization of Spanish America: 19th Century to Present Credits: 3

## Choose one of the following literature survey courses:

- SPAN 318 - Hispanic Children's Literature for the K-12 Classroom Credits: 3
- SPAN 330 - Spanish Literature 1800 to Present Credits: 3
- SPAN 332 - Spanish American Literature - 19th Century to Present Credits: 3

## Choose one of the following literature courses:

- SPAN 431 - Spanish Literature - Medieval to 18th Century Credits: 3
- SPAN 432 - Spanish-American Literature: Precolumbian to 19th Century Credits: 3

## Spanish Electives

For students who exempt any of the required core. Any Spanish course may be used in this block except SPAN 210.

## Study Abroad Highly Recommended

Students should plan to spend a summer or semester in a country where Spanish is spoken. Credits earned may be used to fill the above requirements.

## Middle Level English/Language Arts

Secondary Education/Foundations of Education

Follow the checklist provided by the Secondary Education/Foundations of Education department to complete Liberal Studies requirements.

## Liberal Studies Requirements

See Secondary Education/Foundations of Education departmental checklist for course requirements and recommendations.

## Professional Education

- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 245 - Middle Level Learning Theory Credits: 3
- SEFE 250 - Pre, Early, & Adolescent Development Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SEFE 300 - Middle Level Cognitive Development Credits: 3
- SEFE 325 - Teaching in the Middle Level Grades Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 337 - Teaching Middle Level Language Arts Credits: 3
- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3
- SEFE 422 - Practicum in the Middle-Level Grades Credits: 1
- SEFE 456 - Student Teaching - Middle Level Grades Credits: 12
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 315 - Special Education Issues in Diverse Secondary Classrooms Credits: 3

## English/Language Arts Certification Specialization

Required 24 semester hours from the following courses. All grades must be "C" or above.

An additional 9 credits from Liberal Studies courses. Check with academic adviser for course selections.

- ENGL 305 - Practicum: Teaching Writing Credits: 3 **REQUIRED COURSE**
- ENGL 230 - Introduction to Linguistics and Grammar Credits: 3
- OR
- ENGL 331 - Historical Development of the English Language Credits: 3
- ENGL 263 - World Literature Credits: 3
- ENGL 317 - British Literature I Credits: 3
- OR
- ENGL 318 - British Literature II Credits: 3
- ENGL 319 - American Literature I Credits: 3
- OR

- ENGL 320 - American Literature II Credits: 3
- ENGL 328 - Young Adult Literature Credits: 3 *REQUIRED COURSE*
- ENGL 332 - Modern English Grammar and Syntax Credits: 3
- COMM 362 - Mass Media and Society Credits: 3 *REQUIRED COURSE*

## Middle Level Mathematics

Secondary Education/Foundations of Education

Follow the checklist provided by the Secondary Education/Foundations of Education department to complete Liberal Studies requirements.

## Liberal Studies Requirements

See Secondary Education/Foundations of Education departmental checklist for course requirements and recommendations.

## Professional Education

- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 245 - Middle Level Learning Theory Credits: 3
- SEFE 250 - Pre, Early, & Adolescent Development Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SEFE 300 - Middle Level Cognitive Development Credits: 3
- SEFE 311 - Teaching of Mathematics in the Middle School Credits: 3
- SEFE 325 - Teaching in the Middle Level Grades Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3
- SEFE 422 - Practicum in the Middle-Level Grades Credits: 1
- SEFE 456 - Student Teaching - Middle Level Grades Credits: 12
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 315 - Special Education Issues in Diverse Secondary Classrooms Credits: 3

## Specialization (Mathematics Certification Area)

Choose 18 total semester hours from the following course list. All grades must be "C" or above.

### Required:

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 225 - Calculus I Credits: 4

### Electives

- MATH 122 - Matrices and Linear Programming Credits: 3



- MATH 125 - Precalculus Credits: 4
- MATH 153 - Elementary Statistics II Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3

## Middle Level Science

Secondary Education/Foundations of Education

Follow the checklist provided by the Secondary Education/Foundations of Education department to complete Liberal Studies requirements.

## Liberal Studies Requirements

See Secondary Education/Foundations of Education departmental checklist for course requirements and recommendations.

## Professional Education

- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 245 - Middle Level Learning Theory Credits: 3
- SEFE 250 - Pre, Early, & Adolescent Development Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SEFE 300 - Middle Level Cognitive Development Credits: 3
- SEFE 325 - Teaching in the Middle Level Grades Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SEFE 349 - Teaching of Science in the Middle School Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3
- SEFE 422 - Practicum in the Middle-Level Grades Credits: 1
- SEFE 456 - Student Teaching - Middle Level Grades Credits: 12
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 315 - Special Education Issues in Diverse Secondary Classrooms Credits: 3

## Specialization (Science Certification Area)

Required 23-25 semester hours from the following courses. All grades must "C" or above.

- BIOL 105 - Environmental Biology Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- AND
- CHEM 112 - General Chemistry II Lab Credits: 1
- EGEO 101 - Physical Geology Credits: 3
- AND

- EGEO 111 - Physical Geology Lab Credits: 1
- EGEO 121 - Meteorology Credits: 4
- EGEO 201 - Earth Materials and Processes Credits: 3
- PHYS 201 - Elements of Physics I/ Lab Credits: 4
- PHYS 202 - Elements of Physics II/ Lab Credits: 4

## Middle Level Social Studies

Secondary Education/Foundations of Education

Follow the checklist provided by the Secondary Education/Foundations of Education department to complete Liberal Studies requirements.

## Liberal Studies Requirements

See Secondary Education/Foundations of Education departmental checklist for course requirements and recommendations.

## Professional Education

- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 245 - Middle Level Learning Theory Credits: 3
- SEFE 250 - Pre, Early, & Adolescent Development Credits: 3
- SEFE 270 - Educational Measurements, Assessment and Evaluation Credits: 3
- SEFE 300 - Middle Level Cognitive Development Credits: 3
- SEFE 325 - Teaching in the Middle Level Grades Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 335 - Teaching Middle Level Social Studies Credits: 3
- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3
- SEFE 422 - Practicum in the Middle-Level Grades Credits: 1
- SEFE 456 - Student Teaching - Middle Level Grades Credits: 12
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 315 - Special Education Issues in Diverse Secondary Classrooms Credits: 3

## Specialization (Social Studies Certification Area) - Credits: 33

Additional courses to reach 33 credits toward Social Studies Certification will be earned in the Liberal Studies program. Check with your academic adviser for guidance.

## Choose one World History course

- HIST 151 - Ancient and Medieval World Credits: 3
- HIST 152 - Rise of the Modern World Credits: 3
- HIST 153 - Contemporary World History Credits: 3

## Choose one American History course

- HIST 201 - Colonial America to 1815 Credits: 3
- HIST 202 - United States, 1815-1920 Credits: 3
- HIST 203 - U.S. History Since 1920 Credits: 3

## PA History Required

- HIST 435 - Pennsylvania Credits: 3

## Choose one Non-Western History course

- HIST 362 - Africa North of the Zambezi Credits: 3
- HIST 363 - Southern Africa Credits: 3
- HIST 370 - History and the Bible Credits: 3
- HIST 371 - History of Jews Credits: 3
- HIST 380 - Egyptology Credits: 3
- HIST 381 - East Asian Military Traditions Credits: 3
- HIST 382 - Modern Asian Pacific Rim Credits: 3
- HIST 386 - Modern China Credits: 3
- HIST 462 - The Contemporary Middle East Credits: 3

# Special Education

112 Special Education Building  
724-738-2085

Special Education

The Special Education Department is dedicated to the professional development of pre-service and in-service teachers, administrators, and related professionals in the field of Special Education. Our specialized programs, both on-campus and web-based, are centered on research-based classroom experiences and extensive field work in self-contained and inclusive settings, schools and agency settings. We believe that collaboration, service, professionalism, and leadership, combined with a strong knowledge base, are key components in the development of model professionals who are dedicated to individuals with exceptionalities throughout their lifespan.

### **Chair**

Joseph G. Merhaut

### **Secretary**

Linda Forrest

### **Faculty**

Rebecca Badgett, Richael Barger-Anderson, Robert Bost, Patrick Grant, Robert Isherwood, Jodi Katsafanas, Jeremy Lynch, Michelle McCollin, Joseph Merhaut, Mike Monfore, and Matthew Vogel

The guidelines on admission, professional conduct, and student teaching for this department include, and may go beyond, those required for the College of Education as a whole. Details may be found in the Teacher Education Policy Manual.

The special education department's programs are for students who choose to pursue careers working with exceptional children who are identified or those who differ significantly from the "average" child to the extent that special instructional methods, materials, and/or related services are required for their education and treatment.

The department offers an undergraduate education program that includes courses in liberal studies, professional education, elementary education, and special education. Students are required to complete a minimum of 20 hours involved in direct contact with individuals in a diverse educational setting prior to their supervised teaching assignments at the junior/senior levels. Throughout the undergraduate program students are required to participate in experience-based learning in order to maximize their development as competent and effective future educators.

## **Community Programs for Americans with Disabilities (BS) - Adapted Physical Activity Track**

### **Special Education Department**

#### **(no teacher certification)**

Students may elect to major in special education without working for a teaching certificate. The program, Community Programs for Americans with Disabilities (CPAD) prepares professionals for a variety of community-based roles providing services for children and adults with disabilities. These roles include: case managers for intermediate care facilities, house managers for community residences, supervisors for sheltered workshops, and directors for community living arrangement programs. Students conclude the CPAD program with a 12-credit internship within a local community-based facility.

#### **Foundations - 12 credits**

- ELEC 100 - Early Childhood Education Theory & Practice Credits: 3
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 122 - Low Incidence Disabilities Credits: 3
- SPED 230 - Developmental Disorders Credits: 3

#### **CPAD Block - 12 credits**

- SPED 341 - Life Management for Persons with Disabilities Credits: 3
- SPED 342 - Seminar in CPAD Credits: 3
- SPED 343 - Americans with Disabilities Credits: 3
- PE 460 - Program Design in Adapted Physical Activity Credits: 3

## Adapted Physical Activity Block - 21 credits

- PE 227 - Introduction to Adapted Physical Activity Credits: 3
- PE 262 - Adapted Aquatics Credits: 3
- PE 266 - Disability Sport in the 21st Century: A Global Perspective Credits: 3
- PE 287 - Adapted and Therapeutic Exercise Credits: 3
- PE 355 - Assessment Techniques in Adapted Physical Activity Credits: 3
- PE 364 - Biomechanics of Individuals with Disabilities Credits: 3
- PE 473 - Professionalism, Advocacy, and Leadership in Physical Activity Credits: 3

## Practicum - 3 credits

- SPED 410 - CPAD Practicum Credits: 3

## Internship - 12 credits

- SPED 450 - Internship Credits: 12

## **Community Programs for Americans with Disabilities (BS) - Non-Profit Management Track**

### **Special Education**

#### **(no teacher certification)**

Students may elect to major in special education without working for a teaching certificate. The program, Community Programs for Americans with Disabilities (CPAD) prepares professionals for a variety of community-based roles providing services for children and adults with disabilities. These roles include: case managers for intermediate care facilities, house managers for community residences, supervisors for sheltered workshops, and directors for community living arrangement programs. Students conclude the CPAD program with a 12-credit internship within a local community-based facility.

## Foundations - 15 credits

- ELEC 100 - Early Childhood Education Theory & Practice Credits: 3
- ELEC 200 - Child Development Typical Credits: 3
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 122 - Low Incidence Disabilities Credits: 3
- SPED 230 - Developmental Disorders Credits: 3

## CPAD Block - 9 credits

- SPED 341 - Life Management for Persons with Disabilities Credits: 3
- SPED 342 - Seminar in CPAD Credits: 3
- SPED 343 - Americans with Disabilities Credits: 3

## Non-Profit Leadership Block - 18 credits

- PROF 205 - Accounting for Decision Makers Credits: 3
- PROF 304 - Urban Sociology Credits: 3
- PROF 320 - Community Change and Development Credits: 3
- PROF 321 - Minority Groups Credits: 3
- PROF 325 - Social and Ethical Issues in Philanthropy and Fundraising Credits: 3
- PROF 342 - Sociology of Aging Credits: 3

## Practicum - 3 credits

- SPED 410 - CPAD Practicum Credits: 3

## Internship - 12 credits

- SPED 450 - Internship Credits: 12

Electives as needed to reach 120 total credits

## Minor in Exceptionalities

Special Education Department

### Requirements for the Minor

Students who are studying in psychology, social work, music therapy, recreation, and teacher education may find the minor in exceptionalities to be a desirable enhancement to their major career fields. The minor is a prescribed program of 15 credits of special education courses. The Minor in Exceptionalities program does not lead to certification in special education.

### Level I

One course required

- SPED 121 - High Incidence Disabilities Credits: 3

### Level II

Select two courses

- SPED 122 - Low Incidence Disabilities Credits: 3
- SPED 325 - Interventions in the Inclusive Classroom Credits: 3

## Level III

Two courses required

- SPED 430 - Positive Behavior Strategies Credits: 3
- SPED 432 - Intervention in the Content Areas Credits: 3

## **Special Education Certification and Dual Certification (SPEd/ELEd)**

Special Education Department

The university is authorized by the Pennsylvania Department of Education to provide certification courses and practical experiences designed to meet requirements for the Cognitive, Behavioral, and Physical Disabilities (CBPD) certificate in special education. The teaching certificate enables graduates to teach children identified as having mental retardation, learning disabilities, physical disabilities, or behavior disorders in school placements from kindergarten through grade twelve.

While students may declare the major in special education and work for a single teaching certificate (CBPD), most students opt for the dual certification program. Students may declare the major in special education and work for a single teaching certificate, the comprehensive M/PH certificate. Students may declare the special education/elementary education major and study for elementary education teacher certification and special education certification. The special education/elementary education certification program includes credits beyond the minimum required for the baccalaureate degree. The Teacher Education Policy Manual describes procedures for students interested in pursuing multiple teaching certificates.

An integral component of pre-professional programs in special education is the requirement of a practicum experience for credit. Practicum is part of the Special Education Professional Semester which integrates strategy courses with a field experience in local school districts.

## Requirements for the Major

The specific course of study and requirements leading to teacher certification in special education are available in the Department of Special Education or from the student's advisor. See also Teacher Education Policy Manual, available in 105 McKay Education Building or on the College of Education homepage.

## Requirements Outside the Major

These courses will satisfy a portion of the student's Liberal Studies block requirements

- ENGL 101 - Introduction to College Writing Credits: 3
- ENGL 103 - College Writing II Credits: 3
- ENGL 210 - Interpreting Literature Credits: 3
- COMM 200 - Public Speaking Credits: 3
- PHYS 101 - Concepts of Science I/ Lab Credits: 3

- MATH 210 - Elementary Mathematics I Credits: 3
- MATH 310 - Elementary Mathematics II Credits: 3

## Foundations - Credits: 22-23

- ELEC 100 - Early Childhood Education Theory & Practice Credits: 3
- ELEC 200 - Child Development Typical Credits: 3
- ELEC 285 - Integrating Creative Expression through the Arts Credits: 3
- ELEC 348 - Leadership, Advocacy & Program Development Credits: 3
- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 230 - Developmental Disorders Credits: 3
- PE 243 - Educational Movement in Health & Wellness Credits: 3  
OR DANC223, Creative Dance

## Diversity Block - Credits: 9

- ELEC 230 - Field-Based Child Development Typical Credits: 3
- ELEC 237 - ELL Strategies and Practice for Early Childhood Education Credits: 3
- ELEC 281 - Family and Community Diversity and Partnerships Credits: 3

## Early Literacy Block - Credits: 6

- ELEC 214 - Developmental Formal & Informal Assessment Credits: 3
- ELEC 238 - Literacy Practices for the Emergent Learner(PreK-grade 1) Credits: 3

## Block 1- Credits: 10

- ELEC 311 - Mathematics & Literacy Teaching Lab Pre K - 4 Credits: 1
- ELEC 330 - Literacy Practices for the Developing Learner, Grades 2 - 4 Credits: 3
- ELEC 340 - Mathematics Methods and Strategies for PRE K - 4 Teachers Credits: 3
- SPED 325 - Interventions in the Inclusive Classroom Credits: 3

## Block 2 - Credits: 15

- ELEC 420 - Early Childhood Field Experience Credits: 3
- ELEC 440 - ECE Curriculum Integration: Theory into Practice Credits: 3
- ELEC 460 - Instructional Strategies for Science and Technology Credits: 3
- ELEC 470 - Social Studies & Citizenship Credits: 3
- SPED 326 - Special Education Law and Procedures Credits: 3

## Special Education Professional Semester - Credits: 15

- SPED 430 - Positive Behavior Strategies Credits: 3
- SPED 431 - Behavior Disorders and Autism Credits: 3
- SPED 432 - Intervention in the Content Areas Credits: 3



- SPED 433 - Assessment Strategies in Special Education Credits: 3
- SPED 434 - Professional Collaboration and Ethical Practices Credits: 3

## Student Teaching - Credits: 12

All coursework in previous areas must be completed prior to Student Teaching

- ELEC 455 - Student Teaching: Early Childhood Credits: 12, 6, 3
- SPED 455 - Student Teaching - Special Education Credits: 12, 6, 3

# College of Health, Environment & Sciences

325 Physical Therapy Building  
724-738-4862

### **Dean**

Susan Hannam

### **Assistant to the Dean**

Wendy Stuhldreher

### **Administrative Assistant**

Stacey Booth

### **Secretary**

Robin Campbell

### **Departments**

Biology

Chemistry

Exercise and Rehabilitative Sciences

Geography, Geology, and the Environment

Mathematics

Nursing

Parks and Recreation

Physics

Psychology

Public Health and Social Work

School of Physical Therapy

### **Other Programs**

Institute for the Environment

McKeever Environmental Learning Center

Pre-Physician Assistant Option

The primary mission of the College of Health, Environment, and Science is to provide quality undergraduate and graduate programs that prepare students for a variety of human service, science, and environmental professions. The major fields of study leading to a bachelor of science, bachelor of science in education, bachelor of arts, or bachelor of science in nursing are described under the appropriate departments, which include: public health and social work, exercise and rehabilitative sciences, nursing, parks and recreation, biology, chemistry, and physics, geography,

geology, and the environment, mathematics, and psychology. The natural sciences and mathematics programs offer a wide range of opportunities that enhance students' awareness of the natural environment and prepare students to engage in logical thought processes. Curricula provide a broad liberal arts foundation and a specialized body of knowledge in a selected area of study. Many programs incorporate a wide range of applied learning opportunities, such as laboratories, field experiences, and internships. Following completion of the undergraduate program, many students pursue graduate study in the health professions including medicine, pharmacy and chiropractic, or advanced graduate work in their area of specialization. Students pursuing teacher education programs in environmental education are expected to meet all admission and retention criteria as described in the teacher education section.

In addition, the College offers an interdisciplinary program in gerontology, health informatics, medical technology, cytotechnology and other areas of specialization.

## **Institute for the Environment**

The Institute for the Environment at Slippery Rock University started operation in 1994. Its mission is to provide interdisciplinary, interuniversity, and international opportunities for faculty, students, staff, and community members to work together for the improvement of the total environment (physical, biological, human). Institute members will serve as environmental leaders through scholarly endeavors such as research, grant writing, curriculum development, university and community service, and international experience.

## **McKeever Environmental Learning Center**

Sandy Lake, PA  
724-376-1000

### **Director**

Francis Bires

### **Secretary**

Shelly Miller

The McKeever Environmental Learning Center is a public service institute for the State System of Higher Education administered by Slippery Rock University of Pennsylvania. It is the only facility within the system dedicated to the specific mission of providing environmental education to the citizens of the commonwealth. The center has been in operation since 1974, providing exemplary programming for students of all ages in the form of resident or day field trips, teacher workshops, educational seminars and special events for the public. Students from both private and public systems of higher education also complete eight weeks of their student teaching assignments at McKeever to enhance their teaching skills as future educators.

A Retreat Center consisting of 2 houses accommodating 20 people is available for staff/faculty get-aways, long range planning sessions and retreats. Visit the center's web site at [www.mckeever.org](http://www.mckeever.org).

## **Pre-Physician Assistant Option at Slippery Rock University**

### **Declaring the Pre-Physician Assistant Option at Slippery Rock University**

Only first semester freshman are eligible for this program and must select this specialization *at the time of application*. Freshman whose first semester is in the spring term may select this specialization however, these freshman will be out of sequence for courses and thus may require more time to complete the prerequisite course work before making application the graduate program. Continuing students may not add this specialization.

Currently there are four (4) undergraduate majors you can select in preparation for this PA graduate program – Athletic Training; Biology, Exercise Science and Public Health.

### **Pre-Physician Program Requirements**

Students in the Pre-Physician Assistant specialization must complete all the major requirements for their selected degree and additional prerequisite courses required by Chatham University. The required pre-requisites include the following courses:

College Writing (ENGL 102)

Principles of Biology with lab (BIOL 104)

Medical Microbiology with lab (BIOL 210)

Anatomy and Physiology I and II (BIOL 216 & 217) with lab

Genetics with lab (BIOL 250)

Elementary Statistics (MATH 152)

General Chemistry I and II (CHEM 107 & 108; CHEM 111 & 112 – lab)

Introduction to Psychology (PSYC 105)

Developmental Psychology (PSYC 344)

Students must earn a B or higher in all of these required prerequisite courses. Student who earn less than a B in any course will be removed from the program. Students in the Pre-Physician Assistant specialization may not repeat any of these prerequisite courses nor transfer any of these courses.

### **Other program requirements include:**

A cumulative GPA of 3.5 or better on a scale of 4.0 as calculated by the Centralized Application Service for Physician Assistants (CASPA). If a student drops below a 3.5 for any semester cumulative GPA, they will be removed from the program.

A cumulative science GPA of 3.4 or better as calculated by CASPA with a minimum of 18 science credits. If the science GPA drops below a 3.4, students will be removed from the program.

Maintenance of a good citizenship record.

Successful completion of all Chatham University's MPAS program admissions requirements.

In the event that students become ineligible for the program for any reason, they will be notified in writing.

### **Application Procedure**

The two students who will be granted the two (2) guaranteed seats in the Chatham University Physician Assistant Program will be selected by a committee of Slippery Rock Faculty. Students will make application to both the SRU Physician Assistant Selection Committee and Chatham University's MPAS program. The committee will notify Chatham of the selected students. Application to the SRU Physician Assistant Selection Committee is not a guarantee

that the student will be granted a seat at Chatham University. Students who are not selected by the SRU Physician Assistant Selection Committee still have the option to apply independently. Any student who wishes to apply whether in the Pre-Physician specialization or not may do so independently as well and compete in the general pool of applicants for seats in the Program.

## Pre-professional Programs

### Biology Department

120 Patterson Hall  
724-738-2023

### Chemistry Department

727 Advanced Technology and Science Hall  
724-738-2031

### **Pre - Medical, dental, veterinary, optometry, pharmacy, podiatry**

Students interested in these pre-professional programs are requested to contact the chairperson of the department of Biology or Chemistry. These professional schools do not generally indicate a preference for a particular major. However, they do encourage students to have a liberal arts background with an ability to communicate and a strong concentration in the sciences. Students are advised to take at least one year of biology coursework, two years of chemistry (two semesters of general chemistry and two semesters of organic chemistry), one year of physics (8 credits), and mathematics through calculus.

## Biology

300 Vincent Science Center  
724-738-2023

### Biology

The fundamental mission of the department of Biology is to provide students with a comprehensive, contemporary understanding of the biological sciences. The goal of these efforts is to foster an appreciation for the complexities of living systems and to promote the development of competent biologists and scientifically literate citizens equipped for life-long learning.

### **Chair**

Jerry Chmielewski

### **Secretary**

Deborah Andrews

### **Faculty**

Simon Beeching, Jerry Chmielewski, Nicole Dafoe, Dean DeNicola, Wayne Forbes, Stacy Hrizo, Dave Krayesky, Jack Layne, Susan Rehorek, Mark Shotwell, William Sigmund, Carolyn Steglich, Steven Strain

*“Slippery Rock has an amazing Biology program. The professors are very supportive and I thought of them as my family away from home. Work hard and don’t expect an easy ride – the rewards and satisfaction you receive after graduation make it all worth it though.”*

**Angela Hollis, MD ‘99**

Our curriculum introduces the student to basic biological principles at the molecular, cellular, organismal, and population levels. The degree programs offered by the Department of Biology provide either breadth of training in the biological sciences, concentrations in botany or zoology, or concentrations in the paramedical fields of Medical Technology or Cytotechnology. Several year plus degree options are also available, thus facilitating smooth transition to degrees in physical therapy at Slippery Rock University, osteopathic medicine at Lake Erie College of Osteopathic Medicine (LECOM), pharmacy at the LECOM School of Pharmacy and chiropractic at Logan University of Chiropractic (see Pre-Professional Programs). Specialized opportunities exist for participation in undergraduate research and for off campus study (e.g. international experiences, internships, marine science).

Graduates may select careers in academia, business, health profession, teaching, industry, or government. Whatever their individual specializations, the biology faculty share a commitment to students and have a genuine concern for their professional development.

Students majoring or minoring in biology must maintain at least a 2.000 average in biology. Before progressing to a 200-level course, students must earn a 2.000 in 100-level basic requirement biology courses. Students may register in 200-level biology courses in any order but must maintain a biology average of 2.000 or better, before progressing to another course. A student must repeat any 200-level course that brings the biology average below a 2.000. Students must complete the 200 core sequence before progressing to 300- and 400-level courses in the major. Students should complete all 200-level biology requirements by the end of their sophomore year.

## **Biology (BA)**

See the Department of Biology for more information.

Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that biologists must have.

### **Major Department 32 credits**

#### **Basic Requirements 17 credits**

Before progressing to a 200-level course, students must achieve a minimum 2.000 average in the 100-level basic requirements course. Students may register in 200-level biology courses in any order but must maintain a biology average of 2.0 or better, before progressing to another course. A student must repeat any 200-level biology course that brings the biology average below a 2.000. Students should try to complete all 200-level biology requirements by the end of their sophomore year.

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 492 - Biology Seminar Credits: 1

#### **Additional Requirements 9 credits**

Select 9 credits from the following:

- BIOL 330 - Microbiology Credits: 3
- BIOL 340 - Vertebrate Anatomy Credits: 3

OR

- BIOL 465 - Plant Anatomy / Lab Credits: 3
  - BIOL 370 - Molecular Biology Credits: 3
  - BIOL 401 - Ecology Credits: 3
  - BIOL 410 - Animal Physiology Credits: 3
- OR
- BIOL 451 - Plant Physiology / Lab Credits: 3

## Electives - Credits: 6

Select two courses from the above or any approved 300 or 400-level biology major courses. Additional electives may be selected from the Marine Science offerings.

## Related Sciences 8 credits

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1

## College Requirements 11 - 12 credits

- CHEM 107 - General Chemistry I Credits: 3
  - CHEM 111 - General Chemistry I Lab Credits: 1
  - MATH 125 - Precalculus Credits: 4
- OR
- MATH 225 - Calculus I Credits: 4
  - PHYS 201 - Elements of Physics I/ Lab Credits: 4
- OR
- PHYS 211 - General Physics I/ Lab Credits: 4

## Recommended Courses

- Any Computer Science (CPSC) course
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1

## **Biology (BS) - Cytotechnology Track**

Department of Biology

Cytotechnologists are highly skilled laboratory professionals who enjoy excellent opportunities in the present job market, which include hospital laboratories, private clinics and cancer research laboratories. In our 3+1 program the

student spends three years in coursework at Slippery Rock University and one calendar year in clinical and didactic study at an American Medical Association accredited hospital school of cytotechnology.

During the three years on campus the student earns a minimum of 91 credits. Upon the successful completion of the clinical 12 months, the university accepts 29 semester credits in transfer and awards the bachelor of science degree. Because of the nature of the cytotechnology curriculum, transfer students are strongly urged to earn 64 credits at Slippery Rock University.

Slippery Rock University is formally affiliated with the Fletcher Allen Health Care, Burlington, VT, and the School of Cytotechnology, Albany Medical College, Albany, NY.

**Note:** A 2.000 average must be maintained in BIOL 104, 210, 213, 214, 215, 216, 217, and 250 before cytotechnology students can move on to the next required course. See also Department of Biology guidelines for further restrictions.

## Requirements for the Major - Credits: 50

### Basic Requirements 26 credits

Before progressing to a 200-level course, students must achieve a minimum 2.000 average in the 100-level basic requirements course. Students may register in 200-level biology courses in any order but must maintain a biology average of 2.0 or better, before progressing to another course. A student must repeat any 200-level biology course that brings the biology average below a 2.000. Students should try to complete all 200-level biology requirements by the end of their sophomore year.

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 210 - Medical Microbiology/Lab Credits: 3
- BIOL 216 - Anatomy and Physiology/Lab Credits: 3
- BIOL 217 - Anatomy and Physiology/Lab Credits: 3
- BIOL 250 - Genetics Credits: 4
- BIOL 314 - Medical Parasitology/Lab Credits: 1
- BIOL 315 - Medical Mycology/Lab Credits: 1
- BIOL 316 - Medical Immunology/Lab Credits: 1
- BIOL 335 - Cell Biology Credits: 3
- BIOL 470 - Histology / Lab Credits: 3

### Related Sciences 12 credits

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1

### College Requirements 12 credits

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4

- PHYS 211 - General Physics I/ Lab Credits: 4

## Hospital Internship

Minimum of 91 hours on campus plus 1 year (12 months) at an affiliated School of Cytotechnology or one acceptable to Slippery Rock University.

## Biology (BS) - Medical Technology Track

Department of Biology

Slippery Rock University's medical technology program involves three academic years of study on campus and one calendar year at an approved, affiliated school of medical technology or one acceptable to SRU. During the first three years of the program the student must complete a minimum of 91 semester credits.

After the sophomore year, the student applies for admission to a school of medical technology where acceptance is on a competitive basis. Successful completion of the internship program results in the awarding of the bachelor of science degree. Certification as a medical technologist is obtained by passing the Board of Registry Medical Technologists examination of the American Society of Clinical Pathologists and/or the Clinical Laboratory Scientist examination of the National Certification Agency for Medical Laboratory Personnel. Because of the nature of the medical technology curriculum, transfer students are strongly urged to earn 64 credits at Slippery Rock University.

Slippery Rock University is formally affiliated with the Altoona Hospital, Altoona, PA; Rochester General Hospital, Rochester, NY; St. Vincent Health Center, Erie, PA; WCA Hospital, Jamestown, NY; and York Hospital, York, PA.

**Note:** A 2.000 average must be maintained in BIOL 104, 210, 213, 214, 215, 216, 217 and 250 before medical technology students can move on to the next required course. See also Department of Biology guidelines for further restrictions.

## Requirements for the Major - Credits: 50

### Basic Requirements 26 credits

Before progressing to a 200-level course, students must achieve a minimum 2.000 average in the 100-level basic requirements course. Students may register in 200-level biology courses in any order but must maintain a biology average of 2.0 or better, before progressing to another course. A student must repeat any 200-level biology course that brings the biology average below a 2.000. Students should try to complete all 200-level biology requirements by the end of their sophomore year.

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 210 - Medical Microbiology/Lab Credits: 3
- BIOL 216 - Anatomy and Physiology/Lab Credits: 3
- BIOL 217 - Anatomy and Physiology/Lab Credits: 3
- BIOL 250 - Genetics Credits: 4
- BIOL 314 - Medical Parasitology/Lab Credits: 1
- BIOL 315 - Medical Mycology/Lab Credits: 1
- BIOL 316 - Medical Immunology/Lab Credits: 1
- BIOL 330 - Microbiology Credits: 3



- BIOL 335 - Cell Biology Credits: 3  
OR
- BIOL 370 - Molecular Biology Credits: 3

### College Requirements 12 credits

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

### Related Sciences 12 credits

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1

### Hospital Internship

Minimum of 91 hours on campus plus 1 year (12 months) at an affiliated School of Medical Technology or one acceptable to Slippery Rock University.

## **Biology (BS) - Professional**

See the Department of Biology for more information.

Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that biologists must have.

Concentration in Bioinformatics - Biology is available as an *optional* component to the B.S. Biology - Professional Track.

### Requirements for the Major - Credits: 41

#### Non-Independent Study Option - Credits: 41

As in the Independent Study track except substitute an additional 300- or 400-level majors course in biology in place of BIOL 490. Additional electives may be selected from the Marine Science offerings.

#### Independent Study Option - Credits: 41

#### Basic Requirements - Credits: 20

Before progressing to a 200-level course, students must achieve a minimum 2.000 average in the 100-level basic requirements course. Students may register in 200-level biology courses in any order but must maintain a biology average of 2.0 or better, before progressing to another course. A student must repeat any 200-level biology course that brings the biology average below a 2.000. Students should try to complete all 200-level biology requirements by the end of their sophomore year.

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 490 - Independent Study Credits: 1 to 3
- BIOL 492 - Biology Seminar Credits: 1

### Additional Requirements - Credits: 15

- BIOL 325 - Biometry / Lab Credits: 3
- BIOL 330 - Microbiology Credits: 3
- BIOL 335 - Cell Biology Credits: 3
- BIOL 340 - Vertebrate Anatomy Credits: 3
- BIOL 370 - Molecular Biology Credits: 3
- BIOL 401 - Ecology Credits: 3
- BIOL 410 - Animal Physiology Credits: 3
- BIOL 451 - Plant Physiology / Lab Credits: 3

### Electives - Credits: 6

Select two courses from the above or any approved 300 or 400-level biology major courses. Additional electives may be selected from the Marine Science offerings.

### Related Sciences 18 credits

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- PHYS 213 - General Physics III/ Lab Credits: 4

### College Requirements 12 credits

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## Free Electives

Any Computer Science (CPSC) course

## Concentration in BioInformatics - Biology

Advances in genetics and molecular biology, and the impetus of the genome project, has generated a need for using computational sciences to understand biochemical processes. This concentration will prepare students in the interdisciplinary area of BioInformatics consisting of coursework from biology, computer science, chemistry and mathematics. The concentration in BioInformatics will allow students to either obtain jobs or pursue graduate school in the areas of bioinformatics, cellular and systems biology, genomics and proteomics, molecular structural biology, biochemistry, drug discovery, drug design, protein structure, gene finding and genome assembly to name a few.

- CPSC 146 - Programming Principles Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 374 - Algorithms and Data Structures Credits: 3
- CPSC 480 - Machine Learning and BioInformatics Credits: 3
- MATH 230 - Calculus II Credits: 4

## Biology - 2+3 Pre Pharmacy (LECOM) Program

Department of Biology

The Lake Erie College of Osteopathic Medicine (LECOM) School of Pharmacy and Slippery Rock University (SRU) are committed to the training of future pharmacy practitioners. Slippery Rock University and LECOM School of Pharmacy offer an accelerated, five-year Doctor of Pharmacy program. Under this joint agreement students will successfully complete the two-year undergraduate program in pre-pharmacy at SRU and then matriculate into LECOM School of Pharmacy to complete the professional curriculum of the Doctor of Pharmacy degree (Pharm.D) in three years. The accelerated professional pharmacy curriculum at LECOM School of Pharmacy is offered in a 12-month program per academic year. Students participating in this program will not be awarded a Slippery Rock University degree.

The “2+3” Accelerated Pharmacy Program is an early entry pre-pharmacy program that will give students the opportunity to complete their pharmacy education in two phases: Phase I consists of the first two years of undergraduate education at SRU; and Phase II consists of the remaining three years of pharmacy education at LECOM School of Pharmacy.

- Each year a list of every student enrolled in Phase I of the program should be submitted to the LECOM School of Pharmacy Admissions Office no later than October 15.
- LECOM Supplemental applications for admission to the LECOM School of Pharmacy must be submitted to the Director of the Pre-Pharmacy Program by January 10 of the year of matriculation into Phase II of the program. Students applying for Phase II of the Program must also complete an on-line PharmCAS Application by January 10 of the year of matriculation. The Director of the Pre-Pharmacy Program will forward the LECOM application to the Office of Admissions at the LECOM School of Pharmacy by February 1 of the year of matriculation into Phase II.
- LECOM School of Pharmacy will not accept advanced placement credit for prerequisite courses.
- LECOM School of Pharmacy will not accept credit given for CLEP courses.

- LECOM School of Pharmacy will not accept students into Phase I of the program.
- Students who have taken Phase I courses in high school must supplement each course with an additional, higher level course in the same discipline.
- LECOM School of Pharmacy will only accept applications from U.S. citizens and permanent residents.
- The student must be enrolled full-time at the undergraduate institution and complete the program in the time-frame specified in the agreement.
- Students must fulfill all Phase I entrance requirements as specified in the agreement.
- For the students in the 2+3 agreement, all Phase I courses must be taken during a student's four consecutive semesters at the affiliate institution.
- Students cannot take any Phase I courses during the summer.
- The LECOM School of Pharmacy will not accept any student who has repeated courses in Phase I of the program.
- Students must demonstrate that they can handle a full course load. Therefore, the student should not withdraw from any Phase I course which would result in the reduction of their course load.
- If applying through the agreement, the LECOM School of Pharmacy is the student's first choice. If the student is accepted into the LECOM program, the student should not accept an offer from another institution.
- Any Phase I course cannot be taken pass/fail.
- All questions from students accepted into the agreement should be directed to the institutions pre-pharmacy advisor.

For admission to Phase I of the Program, students must fulfill the following requirements:

1. SAT scores (or ACT scores) - 1170 (total of 26)
2. High School Grade Point Average - 3.5 or better out of 4.0
3. Recommendation - Two letters of recommendation
4. Candidate potential - Evidence of scholarly activities and desire to become a pharmacist

For admission to Phase II of the Program, students must fulfill the following requirements:

1. Complete the pre-pharmacy curriculum in Phase I of the "2+3" Accelerated Pharmacy Program, as described below.
  2. Earn a minimum GPA of 3.4 in Phase I of the program with no individual grade lower than a "C".
  3. Earn a GPA of 3.4 or higher for science and mathematics courses.
  4. Submit two letters of recommendation. One of these letters must be from the Health Professions Committee at SRU. The letter will address personal growth of the student during Phase I of the program, as well as the student's maturity, responsibility, and desire to become a pharmacist.
  5. Demonstrates leadership potential and commitment to the pharmacy profession.
  6. Submit a completed application for admission to the LECOM School of Pharmacy.
  7. Complete an in-person interview at LECOM.
- **Beginning with the students applying to the LECOM School of Pharmacy in Fall 2007, the Pharmacy College Admissions Test (PCAT) is strongly recommended.**

Prospective students should contact LECOM directly for anticipated admission guidelines at 814.866.6641 or at [pharmacy@lecom.edu](mailto:pharmacy@lecom.edu). The Doctor of Pharmacy Degree will be conferred upon successful completion of Phase I and Phase II of the program, both didactic and clinical, and recommendation by both the faculty and administration of LECOM School of Pharmacy.

## Required courses at SRU:

### Biology Courses - Credits: 11

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 325 - Biometry / Lab Credits: 3

## Chemistry Courses - Credits: 16

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1

## Mathematics Course - Credits: 4

- MATH 225 - Calculus I Credits: 4

## Physics Courses - Credits: 4

- PHYS 211 - General Physics I/ Lab Credits: 4

## Other Courses - Credits: 30

- Computer Science
- College Writing I & II
- Public Speaking
- Economics
- Psychology or Sociology
- Behavioral Science
- Liberal Studies (9)

## **Biology - 3+4 Pre Osteopath (LECOM) Track (BS)**

### **Biology Department**

## **Lake Erie College of Osteopathic Medicine (LECOM)**

Under this joint agreement between Lake Erie College of Osteopathic Medicine (LECOM) and Slippery Rock University (SRU), select undergraduate students who have successfully completed specific course work at SRU may continue their education in medicine at LECOM. This program is comprised of two phases: Phase I consists of the first three years of undergraduate education at SRU; Phase II consists of the remaining four years of medical school education at LECOM and its associated clinical sites. Slippery Rock University will confer the Bachelor of Science degree in Biology to Slippery Rock students who have successfully completed the Slippery Rock courses in Phase I at SRU and the first four semesters (pre-clinical) of LECOM's Academic curriculum.

To be eligible for the “3+4” Program, SRU students must satisfy the requirements listed below for the Bachelor of Science degree in Biology at SRU for the “3+4” program, and indicate interest to enter into the “3+4” Program during their sophomore year. To gain final acceptance to Phase II of the “3+4” Program, students must apply through the American Association of Colleges of Osteopathic Medicine (AACOMAS) to LECOM by August 30 beginning the third year. A LECOM Secondary application must also be completed prior to scheduling an Admissions Interview. Letters of recommendation and supporting documentation, including certified transcripts from all undergraduate and graduate institutions attended, must be submitted for review by LECOM.

Admissions to LECOM is subject to the applicant’s meeting the following criteria:

1. SAT minimum 1170 or ACT minimum 26
2. High School Grade Point Average 3.5 or better
3. Slippery Rock University GPA (by end of junior year) 3.3 or better
4. MCAT (taken at the end of the junior year or earlier) 24 minimum total score; no lower than 7 in any category.
5. Consideration is also given to personal traits and demonstrated desire to become an osteopathic physician.
6. Appropriate letters of recommendation

Students successful in Phase I will be interviewed by LECOM in the third year prior to admission to Phase II of the “3+4” program. Final acceptance of candidates to Phase II of the “3+4” Program will be determined by LECOM.

Students will be awarded the Bachelor of Science degree in Biology from SRU upon receipt of an official transcript from LECOM indicating successful completion (grade of “C” or better in each course) of the first year of LECOM’s curriculum. Students will be awarded the degree of Doctor of Osteopathic Medicine by LECOM after successfully completing the complete four-year medical curriculum, successfully passing COMLEX I and COMLEX II of the National Board of Osteopathic Medicine Examiners, and otherwise satisfying all other requirements as identified by LECOM for graduation.

## Required courses at SRU:

### Biology Courses - Credits: 25

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 330 - Microbiology Credits: 3
- BIOL 340 - Vertebrate Anatomy Credits: 3
- BIOL 410 - Animal Physiology Credits: 3

### Chemistry Courses - Credits: 19

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 335 - Biochemistry I Credits: 3

(or courses approved by the Biology Department Chairperson)

### Mathematics Course - Credits: 4

- MATH 225 - Calculus I Credits: 4

### Physics Courses - Credits: 7

- PHYS 211 - General Physics I/ Lab Credits: 4
- PHYS 213 - General Physics III/ Lab Credits: 4

## **Biology - Pre Master of Education (7-12) (BA) (BS)**

Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that biologists must have.

### Requirements for the Certification

Teacher certification is earned through the master of education degree at Slippery Rock University. Students seeking secondary school teaching certification in biology must earn a bachelor of arts or a bachelor of science degree in biology and contact the Department of Secondary Education/Foundations of Education concerning its graduate program in education. Information about this program, including prerequisites for admission, may be obtained from the Secondary Education/Foundations of Education office in 114 McKay Education Building.

## **Biology BS - Professional - LECOM Dental 4+4**

Program is effective Fall 2013.

There are 2 tracks to this major - Independent Study Option and Non-Independent Study Option. If completing the Non-Independent Study Option, one additional Major Department elective will be required.

### Major Department - 41 Credits

#### Basic Requirements - 20 Credits

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 490 - Independent Study Credits: 1 to 3
- BIOL 492 - Biology Seminar Credits: 1

#### Additional Requirements - 15 Credits

- BIOL 310 - Plant Systematics / Lab Credits: 3

- BIOL 325 - Biometry / Lab Credits: 3
- BIOL 330 - Microbiology Credits: 3
- BIOL 340 - Vertebrate Anatomy Credits: 3
- BIOL 370 - Molecular Biology Credits: 3
- BIOL 401 - Ecology Credits: 3
- BIOL 410 - Animal Physiology Credits: 3
- BIOL 451 - Plant Physiology / Lab Credits: 3

## Electives - 6 Credits

Select 2 additional courses (6 credits) from the above list or any 300/400 level courses agreed upon with the academic adviser. Additional electives may be selected from the Marin Science offerings. Pymatuning Laboratory Ecology courses are only offered during the summer term.

## Related Sciences - 18 Credits

### Chemistry - 15 Credits

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 335 - Biochemistry I Credits: 3

### Physics - 3 Credits

- PHYS 213 - General Physics III/ Lab Credits: 4

## College Requirements - 12 Credits

### Chemistry - 4 Credits

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1

### Mathematics - 4 Credits

- MATH 225 - Calculus I Credits: 4

### Physics - 4 Credits

- PHYS 211 - General Physics I/ Lab Credits: 4



## Electives and Liberal Studies

Choose free electives and complete Liberal Studies requirements to equal a minimum of 120 credits.

## **Biology BS - Professional - LECOM Osteopathic 4+4**

Program is effective Fall 2013.

There are 2 tracks to this major - Independent Study Option and Non-Independent Study Option. If completing the Non-Independent Study Option, one additional Major Department elective will be required.

### Major Department - 41 Credits

#### Basic Requirements - 20 Credits

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 490 - Independent Study Credits: 1 to 3
- BIOL 492 - Biology Seminar Credits: 1

#### Additional Requirements - 15 Credits

- BIOL 310 - Plant Systematics / Lab Credits: 3
- BIOL 325 - Biometry / Lab Credits: 3
- BIOL 330 - Microbiology Credits: 3
- BIOL 340 - Vertebrate Anatomy Credits: 3
- BIOL 370 - Molecular Biology Credits: 3
- BIOL 401 - Ecology Credits: 3
- BIOL 410 - Animal Physiology Credits: 3
- BIOL 451 - Plant Physiology / Lab Credits: 3

#### Electives - 6 Credits

Select 2 additional courses (6 credits) from the above list or any 300/400 level courses agreed upon with the academic adviser. Additional electives may be selected from the Marin Science offerings. Pymatuning Laboratory Ecology courses are only offered during the summer term.

#### Related Sciences - 18 Credits

##### Chemistry - 15 Credits

- CHEM 108 - General Chemistry II Credits: 3

- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 335 - Biochemistry I Credits: 3

### Physics - 3 Credits

- PHYS 213 - General Physics III/ Lab Credits: 4

### College Requirements - 12 Credits

#### Chemistry - 4 Credits

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1

#### Mathematics - 4 Credits

- MATH 225 - Calculus I Credits: 4

#### Physics - 4 Credits

- PHYS 211 - General Physics I/ Lab Credits: 4

### Electives and Liberal Studies

Choose free electives and complete Liberal Studies requirements to equal a minimum of 120 credits.

## **Biology BS - Professional - Logan Chiropractic 3+3 1/3**

### Major Department - 23 Credits

#### Basic Requirements - 16 Credits

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4

#### Additional Requirements - 7 Credits

- BIOL 330 - Microbiology Credits: 3

- BIOL 350 - Evolution Credits: 3
- BIOL 492 - Biology Seminar Credits: 1

## Related Sciences - 18 Credits

### Chemistry - 15 Credits

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 335 - Biochemistry I Credits: 3

### Physics - 3 Credits

- PHYS 213 - General Physics III/ Lab Credits: 4

## College Requirements - 12 Credits

### Chemistry - 4 Credits

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1

### Mathematics - 4 Credits

- MATH 225 - Calculus I Credits: 4

### Physics - 4 Credits

- PHYS 211 - General Physics I/ Lab Credits: 4

## Liberal Studies Requirements

## Completion of First Year At Logan Chiropractic

Must equal minimum of 120 credits.

## **Biology BS - Professional - Palmer Chiropractic 3+3**

### Major Department - 23 Credits

## Basic Requirements - 16 Credits

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4

## Additional Requirements - 7 Credits

- BIOL 330 - Microbiology Credits: 3
- BIOL 340 - Vertebrate Anatomy Credits: 3
- BIOL 492 - Biology Seminar Credits: 1

## Related Sciences - 18 Credits

### Chemistry - 15 Credits

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 335 - Biochemistry I Credits: 3

### Physics - 3 Credits

- PHYS 213 - General Physics III/ Lab Credits: 4

## College Requirements - 12 Credits

### Chemistry - 4 Credits

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1

### Mathematics - 4 Credits

- MATH 225 - Calculus I Credits: 4

### Physics - 4 Credits

- PHYS 211 - General Physics I/ Lab Credits: 4

## Liberal Studies Requirements

### Completion of First Year At Palmer Chiropractic

Must equal minimum of 120 credits.

## **Biology BS - Professional - WVU Dental 4+4**

Program Approved Spring 2014.

Capitalizing on the strength of partnerships, the West Virginia University School of Dentistry(WVUSD) and Slippery Rock University (SRU) Department of Biology are joining together to promote students' seamless progression from university to dental school through the SRU and WVUSD Dental Early Admission Program (DEAP). This joint program helps simplify the dental school admission process while easing the financial burden of the application. DEAP gives a select number of motivated Slippery Rock University Biology students an early introduction to the WVUSD faculty, students, and alumni while also providing unique opportunities to help prepare them for WVU's challenging dental program. The WVUSD has partnered with SRU's Department of Biology to offer highly qualified rising sophomores at SRU potential early admission to WVU's Doctor of Dental Surgery (D.D.S.) Program. Individuals who complete their first year at SRU and aspire to earn a dental degree are eligible to apply to DEAP. Admission to DEAP is available to a maximum of two students annually through a competitive application and interview process. West Virginia residents receive priority consideration. Because the WVUSD values diversity and recognizes its importance in addressing access to quality oral healthcare, individuals from populations that are under-represented in dental school, including African American, Latino/Hispanic, Native American, first-generation college, and economically disadvantaged, are encouraged to apply.

Slippery Rock University is responsible for DEAP student recruitment since enrollment in SRU is a key program requirement. DEAP applications are available to all SRU students who meet the specified criteria.

There are 2 tracks to this major - Independent Study Option and Non-Independent Study Option. If completing the Non-Independent Study Option, one additional Major Department elective will be required.

## Major Department - 41 Credits

### Basic Requirements - 20 Credits

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 490 - Independent Study Credits: 1 to 3
- BIOL 492 - Biology Seminar Credits: 1

### Additional Requirements - 15 Credits

- BIOL 310 - Plant Systematics / Lab Credits: 3
- BIOL 325 - Biometry / Lab Credits: 3
- BIOL 330 - Microbiology Credits: 3
- BIOL 340 - Vertebrate Anatomy Credits: 3
- BIOL 370 - Molecular Biology Credits: 3
- BIOL 401 - Ecology Credits: 3
- BIOL 410 - Animal Physiology Credits: 3
- BIOL 451 - Plant Physiology / Lab Credits: 3

## Electives - 6 Credits

Select 2 additional courses (6 credits) from the above list or any 300/400 level courses agreed upon with the academic adviser. Additional electives may be selected from the Marin Science offerings. Pymatuning Laboratory Ecology courses are only offered during the summer term.

## Related Sciences - 18 Credits

### Chemistry - 15 Credits

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 335 - Biochemistry I Credits: 3

### Physics - 3 Credits

- PHYS 213 - General Physics III/ Lab Credits: 4

## College Requirements - 12 Credits

### Chemistry - 4 Credits

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1

### Mathematics - 4 Credits

- MATH 225 - Calculus I Credits: 4

### Physics - 4 Credits

- PHYS 211 - General Physics I/ Lab Credits: 4

## Electives and Liberal Studies

Choose free electives and complete Liberal Studies requirements to equal a minimum of 120 credits.

## Marine Science

### Coordinators

Simon Beeching, Tamra Schiappa

Marine biology, marine ecology, marine geology and geophysics, chemical oceanography, and physical oceanography are career areas that are best approached through an undergraduate major in one of the basic sciences of biology, chemistry, geology or physics, or through mathematics. Slippery Rock University, through its membership in the Marine Science Consortium, offers students interested in ocean-related phenomena an opportunity to pursue that interest through a series of summer courses offered at the Chincoteague Bay Field Station, near the Atlantic Ocean in the Virginia eastern shore region. Four three-week summer sessions are offered.

Students interested in marine studies will pursue a major in one of the natural sciences or mathematics at SRU, augmenting their studies with summer courses at the Chincoteague Bay Field Station. The number of summer courses taken will depend on the students' interests and the majors they pursue on campus. Individual programs may be tailored in consultation with an adviser, and the University offers a minor in Marine Science.

The Marine Science Consortium pools the talents and resources of 16 colleges and universities in the mid-Atlantic States. Classrooms, wet and dry laboratories, computer room, a workshop, dock facilities, dormitories, apartments, a cafeteria and recreational facilities are available at or near the Chincoteague Bay Field. Several research and training vessels are available for work along the Atlantic coast and the Chesapeake Bay. Some courses offered at the field station may be applied to the liberal studies requirement in the natural sciences so that any Slippery Rock University student, regardless of major, may take advantage of a first-hand experience in the marine environment. Advisement from one of the Slippery Rock University faculty members associated with the consortium is recommended for any student using Marine Science Consortium courses to fulfill the liberal studies requirement in science. Students should contact the Department of Geography, Geology, and the Environment or the Department of Biology for names of the advisers.

## Minor in Biology

Department of Biology

### Requirements for the Minor - Minimum Credits: 17

#### Required Courses - Credits: 17

One 100-level course with lab.( 4 Semester Hours)

- BIOL 100 - Introductory Biology Laboratory Credits: 1
- BIOL 101 - General Biology Credits: 3
- BIOL 102 - Human Biology Credits: 3
- BIOL 104 - Principles of Biology Credits: 4

200 Level Requirement ( 8 Semester hours)

8 semester hours required. Choose two of the following:

- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4

## 300/400 Level Requirements

300 and 400 Level Courses. (minimum of 5 semester hours)

- BIOL 305 - Wetlands and Aquatic Plants / Lab Credits: 3
- BIOL 306 - Freshwater Biomonitoring / Lab Credits: 3
- BIOL 310 - Plant Systematics / Lab Credits: 3
- BIOL 311 - Entomology / Lab Credits: 3
- BIOL 320 - Ornithology / Lab Credits: 3
- BIOL 325 - Biometry / Lab Credits: 3
- BIOL 330 - Microbiology Credits: 3
- BIOL 335 - Cell Biology Credits: 3
- BIOL 340 - Vertebrate Anatomy Credits: 3
- BIOL 343 - Embryology / Lab Credits: 3
- BIOL 345 - Introduction to Biological Electron Microscopy Credits: 2
- BIOL 350 - Evolution Credits: 3
- BIOL 357 - Environmental Microbiology / Lab Credits: 4
- BIOL 360 - Field Botany Credits: 3
- BIOL 370 - Molecular Biology Credits: 3
- BIOL 371 - Vertebrate Field Zoology Credits: 3
- BIOL 401 - Ecology Credits: 3
- BIOL 405 - Animal Physiological Ecology / Lab Credits: 4
- BIOL 410 - Animal Physiology Credits: 3
- BIOL 430 - Pathogenic Microbiology / Lab Credits: 3
- BIOL 450 - Biology Internship Credits: Up to 12
- BIOL 451 - Plant Physiology / Lab Credits: 3
- BIOL 465 - Plant Anatomy / Lab Credits: 3
- BIOL 470 - Histology / Lab Credits: 3
- BIOL 490 - Independent Study Credits: 1 to 3
- BIOL 492 - Biology Seminar Credits: 1
- BIOL 498 - Selected Topics Credits: 1 to 3

## Pymatuning Laboratory of Ecology

Additional elective courses include:

- BIOL 301 - Forest Ecology Credits: 3
- BIOL 302 - Ecology of Amphibians & Reptiles / Lab Credits: 3
- BIOL 303 - Behavioral Ecology / Lab Credits: 3
- BIOL 307 - Vertebrate Ecology / Lab Credits: 3
- BIOL 308 - Aquatic Ecosystem Management / Lab Credits: 3



- BIOL 321 - Wildlife Management / Lab Credits: 3
- BIOL 322 - Conservation Biology / Lab Credits: 3
- BIOL 326 - Field Methods in Biogeography / Lab Credits: 3
- BIOL 327 - Limnology / Lab Credits: 3
- BIOL 373 - Ichthyology / Lab Credits: 3
- BIOL 375 - Ecology of Fish / Lab Credits: 3

## Marine Science Offerings

Additional electives may be selected from the Marine Science offerings.

- MARS 221 - Marine Invertebrates Credits: 3
- MARS 241 - Marine Biology Credits: 3
- MARS 260 - Marine Ecology Credits: 3
- MARS 270 - Coastal Vegetation Credits: 3
- MARS 300 - Behavior of Marine Organisms Credits: 3
- MARS 320 - Marine Microbiology Credits: 3
- MARS 330 - Tropical Invertebrates Credits: 3
- MARS 342 - Marine Botany Credits: 3
- MARS 343 - Marine Ichthyology Credits: 3
- MARS 344 - Anatomy of Marine Chordates Credits: 3
- MARS 350 - Physiology of Marine Invertebrates Credits: 3
- MARS 398 - Developmental Biology of Marine Organisms Credits: 3
- MARS 420 - Marine Micropaleontology Credits: 3
- MARS 431 - Ecology of Marine Plankton Credits: 3
- MARS 492 - Marine Mammals Credits: 3
- MARS 500 - Problems in Marine Science Credits: 3

## Minor in Marine Science

Marine Science Consortium

Requirements for the Minor - Minimum Credits: 26-27

### Required Courses

Biology Courses - Credits: 3/4

- BIOL 101 - General Biology Credits: 3
- or
- BIOL 104 - Principles of Biology Credits: 4

Chemistry Courses - Credits: 8

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3

- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1

## Environmental Geosciences Courses - Credits: 3

- EGEO 131 - Oceanography Credits: 3

## Marine Science Courses - Credits: 12

- MARS 241 - Marine Biology Credits: 3
  - MARS 331 - Chemical Oceanography Credits: 3
  - MARS 362 - Marine Geology Credits: 3
- plus 3 additional credits from the Marine Science course list.

# Chemistry

272 Advanced Technology and Science Hall  
724-738-2031

## Chemistry

- Prepare students for scientific career opportunities in industry and government.
- Prepare students for graduate study in biotechnology, chemistry, biology, physics, and environmental science
- Prepare students for entrance into schools of medicine, dentistry, veterinary medicine, optometry, nursing, physical therapy, engineering, medical technology, environmental science, pharmacy, and allied public health fields.
- Prepare students to enter the teaching profession in Elementary and Secondary Science Education.

### Chair

Paul Birckbichler

### Secretary

Cheryl Dolan

### Faculty

Paul Birckbichler, Min Soo Lim, John Seiders, Mary Sisak, Donald Zapien, Susan Zirpoli

*“Slippery Rock was a life-altering experience for me. The chemistry courses I took as a freshman, and great professors, set my life’s direction.”*

**Randy Russell**

**Chairman and President of Ranbar Technology, Inc.  
and Ranbar Electrical Materials, Inc.**

**Vice Chairman of Preservation Technologies, LLP**

## Chemistry (BA)

Chemistry Department

A chemistry major studies the chemical properties of substances in order to develop the ability to make discoveries and to solve the vast array of problems associated with existing technologies. Four programs of study leading to a bachelor of science degree and one leading to a bachelor of arts degree are available. The bachelor of arts program allows students to choose more elective courses in order to link chemistry with some other interest such as marketing/sales or patent law. The bachelor of science programs in biochemistry, environmental chemistry, forensic chemistry and general chemistry prepare students for postgraduate education and careers in industry, government, medicine and education. Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that chemists must have.

The science and math course requirements taken during the first two years in our programs are almost identical. Consequently, students do not have to choose a specific specialization until their junior year.

A pharmacy option in the biochemistry program enables students to take advantage of a 3 + 3 affiliation agreement with the Lake Erie College of Osteopathic Medicine's School of Pharmacy. Admission to the three-year pharmacy part of the program is competitive (see Pre-professional Programs).

All of our students are strongly encouraged to do research under the direction of one of our faculty. Three laboratories exist solely for student research, and student/faculty research is supported by modern analytical instrumentation in our spectroscopy and chromatography laboratories.

SRU graduates perform research and development at large corporations and small companies. Others are high school teachers and university professors. Some eventually move into careers in management or sales. Many have completed postgraduate programs in chemistry, engineering, medicine and other science related areas. The chemistry faculty at Slippery Rock University help students develop career goals that match their interests and this is reflected in the wide variety of careers our graduates pursue.

## College-Wide Requirements:

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## Requirements for the Major - Credits: 38-39

### Chemistry Courses - Credits: 31-32

Plus 3-4 credits from CHEM 302, 337, 442, 460, 475

Students must earn at least a "C" or better in CHEM 108, CHEM 112, CHEM 201, and CHEM 202 to register for Chemistry courses numbered 300 or above.

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- CHEM 336 - Biochemistry Laboratory I Credits: 1
- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1
- CHEM 425 - Instrumental Analysis Credits: 3
- CHEM 426 - Instrumental Analysis Laboratory Credits: 1

### Mathematics Courses - Credits: 4

- MATH 230 - Calculus II Credits: 4

### Physics Courses - Credits: 3

- PHYS 213 - General Physics III/ Lab Credits: 4

## **Chemistry (BS) - ACS Certified Track - Computational Chemistry**

Chemistry Department

A chemistry major studies the chemical properties of substances in order to develop the ability to make discoveries and to solve the vast array of problems associated with existing technologies. Four programs of study leading to a bachelor of science degree and one leading to a bachelor of arts degree are available. The bachelor of arts program allows students to choose more elective courses in order to link chemistry with some other interest such as marketing/sales or patent law. The bachelor of science programs in biochemistry, environmental chemistry, forensic chemistry and general chemistry prepare students for postgraduate education and careers in industry, government, medicine and education. Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that chemists must have.

The science and math course requirements taken during the first two years in our programs are almost identical. Consequently, students do not have to choose a specific specialization until their junior year.

A pharmacy option in the biochemistry program enables students to take advantage of a 3 + 3 affiliation agreement with the Lake Erie College of Osteopathic Medicine's School of Pharmacy. Admission to the three-year pharmacy part of the program is competitive (see Pre-professional Programs).

All of our students are strongly encouraged to do research under the direction of one of our faculty. Three laboratories exist solely for student research, and student/faculty research is supported by modern analytical instrumentation in our spectroscopy and chromatography laboratories.

SRU graduates perform research and development at large corporations and small companies. Others are high school teachers and university professors. Some eventually move into careers in management or sales. Many have completed postgraduate programs in chemistry, engineering, medicine and other science related areas. The chemistry faculty at Slippery Rock University help students develop career goals that match their interests and this is reflected in the wide variety of careers our graduates pursue.

New Concentration in Computational Chemistry is available as an *optional* component to the B.S. Chemistry ACS Certified major.

## Required Courses for the Chemistry (BS) – ACS Certified Track

### Required Introductory Chemistry Courses - Credits: 8

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1

### Required Foundation Chemistry Courses - Credits: 20

- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 301 - Physical Chemistry I Credits: 3
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- CHEM 336 - Biochemistry Laboratory I Credits: 1
- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1
- CHEM 442 - Inorganic Chemistry Credits: 3
- CHEM 452 - Physical Inorganic Chemistry Laboratory Credits: 1

### Required In-Depth Chemistry Courses - Credits: 13

- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 302 - Physical Chemistry II Credits: 3
- CHEM 425 - Instrumental Analysis Credits: 3

- CHEM 426 - Instrumental Analysis Laboratory Credits: 1
- CHEM 496 - Research Credits: 1 to 3

## Additional In-Depth Chemistry Courses - Credits: 4

Choose one lecture and one laboratory course from below:

- CHEM 337 - Biochemistry II Credits: 3
- CHEM 338 - Biochemistry Laboratory II Credits: 1
- CHEM 415 - Forensic Analysis Credits: 3
- CHEM 416 - Forensic Analysis Lab Credits: 1
- CHEM 496 - Research Credits: 1 to 3

## Cognate Courses - Credits: 23

- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4
- PHYS 212 - General Physics II/ Lab Credits: 3
- PHYS 213 - General Physics III/ Lab Credits: 4

## Computational Chemistry

Advances in genetics and molecular biology, and the impetus of the genome project, has generated a need for using computational sciences to understand biochemical processes. The proposed concentration is to prepare students in the interdisciplinary area of BioInformatics consisting of coursework from biology, computer science, chemistry and mathematics. The concentration in BioInformatics will allow students to either obtain jobs or pursue graduate school in the areas of bioinformatics, cellular and systems biology, genomics and proteomics, molecular structural biology, biochemistry, drug discovery, drug design, protein structure, gene finding and genome assembly to name a few.

- CPSC 146 - Programming Principles Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 374 - Algorithms and Data Structures Credits: 3
- CPSC 480 - Machine Learning and BioInformatics Credits: 3
- BIOL 104 - Principles of Biology Credits: 4
- MATH 152 - Elementary Statistics I Credits: 3
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- PHYS 385 - Computational Physics Credits: 3

## Chemistry (BS) - Biochemistry Concentration

Chemistry Department

A chemistry major studies the chemical properties of substances in order to develop the ability to make discoveries and to solve the vast array of problems associated with existing technologies. Four programs of study leading to a bachelor of science degree and one leading to a bachelor of arts degree are available. The bachelor of arts program allows students to choose more elective courses in order to link chemistry with some other interest such as marketing/sales or patent law. The bachelor of science programs in biochemistry, environmental chemistry, forensic chemistry and general chemistry prepare students for postgraduate education and careers in industry, government, medicine and education. Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that chemists must have.

The science and math course requirements taken during the first two years in our programs are almost identical. Consequently, students do not have to choose a specific specialization until their junior year.

A pharmacy option in the biochemistry program enables students to take advantage of a 3 + 3 affiliation agreement with the Lake Erie College of Osteopathic Medicine's School of Pharmacy. Admission to the three-year pharmacy part of the program is competitive (see Pre-professional Programs).

All of our students are strongly encouraged to do research under the direction of one of our faculty. Three laboratories exist solely for student research, and student/faculty research is supported by modern analytical instrumentation in our spectroscopy and chromatography laboratories.

SRU graduates perform research and development at large corporations and small companies. Others are high school teachers and university professors. Some eventually move into careers in management or sales. Many have completed postgraduate programs in chemistry, engineering, medicine and other science related areas. The chemistry faculty at Slippery Rock University help students develop career goals that match their interests and this is reflected in the wide variety of careers our graduates pursue.

## Natural Science & Mathematics College-Wide Requirement

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## Requirements for the Major - Credits: 58

### Required Chemistry Courses - Credits: 28

Students must earn at least a "C" or better in CHEM 108, CHEM 112, CHEM 201, and CHEM 202 to register for Chemistry courses numbered 300 or above.

- CHEM 108 - General Chemistry II Credits: 3

- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 301 - Physical Chemistry I Credits: 3
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- CHEM 336 - Biochemistry Laboratory I Credits: 1
- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1
- CHEM 425 - Instrumental Analysis Credits: 3
- CHEM 426 - Instrumental Analysis Laboratory Credits: 1

### Additional Chemistry Requirements - Credits: 11

- CHEM 337 - Biochemistry II Credits: 3
- CHEM 338 - Biochemistry Laboratory II Credits: 1
- CHEM 302 - Physical Chemistry II Credits: 3
- CHEM 442 - Inorganic Chemistry Credits: 3
- CHEM 452 - Physical Inorganic Chemistry Laboratory Credits: 1

### Required Math and Science - Credits: 19

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 370 - Molecular Biology Credits: 3
- MATH 230 - Calculus II Credits: 4
- PHYS 213 - General Physics III/ Lab Credits: 4

### Electives

The department of Chemistry strongly recommends the following courses be taken:

- BIOL 330 - Microbiology Credits: 3
- BIOL 335 - Cell Biology Credits: 3

## Chemistry (BS) - Environmental Chemistry Track

### Chemistry Department

A chemistry major studies the chemical properties of substances in order to develop the ability to make discoveries and to solve the vast array of problems associated with existing technologies. Four programs of study leading to a bachelor of science degree and one leading to a bachelor of arts degree are available. The bachelor of arts program allows students to choose more elective courses in order to link chemistry with some other interest such as marketing/sales or patent law. The bachelor of science programs in biochemistry, environmental chemistry, forensic chemistry and general chemistry prepare students for postgraduate education and careers in industry, government, medicine and



education. Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that chemists must have.

The science and math course requirements taken during the first two years in our programs are almost identical. Consequently, students do not have to choose a specific specialization until their junior year.

A pharmacy option in the biochemistry program enables students to take advantage of a 3 + 3 affiliation agreement with the Lake Erie College of Osteopathic Medicine's School of Pharmacy. Admission to the three-year pharmacy part of the program is competitive (see Pre-professional Programs).

All of our students are strongly encouraged to do research under the direction of one of our faculty. Three laboratories exist solely for student research, and student/faculty research is supported by modern analytical instrumentation in our spectroscopy and chromatography laboratories.

SRU graduates perform research and development at large corporations and small companies. Others are high school teachers and university professors. Some eventually move into careers in management or sales. Many have completed postgraduate programs in chemistry, engineering, medicine and other science related areas. The chemistry faculty at Slippery Rock University help students develop career goals that match their interests and this is reflected in the wide variety of careers our graduates pursue.

## Natural Science & Mathematics College-Wide Requirement

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## Requirements for the Major

### Required Chemistry Courses - Credits: 35

Students must earn at least a "C" or better in CHEM 108, CHEM 112, CHEM 201, and CHEM 202 to register for Chemistry courses numbered 300 or above.

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 301 - Physical Chemistry I Credits: 3
- CHEM 302 - Physical Chemistry II Credits: 3
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- CHEM 336 - Biochemistry Laboratory I Credits: 1
- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1
- CHEM 425 - Instrumental Analysis Credits: 3
- CHEM 426 - Instrumental Analysis Laboratory Credits: 1

- CHEM 442 - Inorganic Chemistry Credits: 3
- CHEM 452 - Physical Inorganic Chemistry Laboratory Credits: 1

### Additional Chemistry Requirements - Credits: 8

- CHEM 340 - Air Quality Assessment Credits: 4
- CHEM 370 - Water Quality Assessment Credits: 4

### Required Math and Science - Credits: 17

- EGEO 451 - Geochemistry Credits: 4
- EGEO 453 - Geotechniques: Geochemistry Credits: 1
- GES 115 - Map Reading and Interpretation Credits: 1
- GES 325 - Introduction to Geographic Information Science Credits: 3
- MATH 230 - Calculus II Credits: 4
- PHYS 213 - General Physics III/ Lab Credits: 4

## Chemistry (BS) - Forensic Chemistry

Chemistry Department

A chemistry major studies the chemical properties of substances in order to develop the ability to make discoveries and to solve the vast array of problems associated with existing technologies. Four programs of study leading to a bachelor of science degree and one leading to a bachelor of arts degree are available. The bachelor of arts program allows students to choose more elective courses in order to link chemistry with some other interest such as marketing/sales or patent law. The bachelor of science programs in biochemistry, environmental chemistry, forensic chemistry and general chemistry prepare students for postgraduate education and careers in industry, government, medicine and education. Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that chemists must have.

The science and math course requirements taken during the first two years in our programs are almost identical. Consequently, students do not have to choose a specific specialization until their junior year.

A pharmacy option in the biochemistry program enables students to take advantage of a 3 + 3 affiliation agreement with the Lake Erie College of Osteopathic Medicine's School of Pharmacy. Admission to the three-year pharmacy part of the program is competitive (see Pre-professional Programs).

All of our students are strongly encouraged to do research under the direction of one of our faculty. Three laboratories exist solely for student research, and student/faculty research is supported by modern analytical instrumentation in our spectroscopy and chromatography laboratories.

SRU graduates perform research and development at large corporations and small companies. Others are high school teachers and university professors. Some eventually move into careers in management or sales. Many have completed postgraduate programs in chemistry, engineering, medicine and other science related areas. The chemistry faculty at Slippery Rock University help students develop career goals that match their interests and this is reflected in the wide variety of careers our graduates pursue.

## Natural Science & Mathematics College-Wide Requirement

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## Requirements for the Major

### Required Chemistry Courses - Credits: 28

Students must earn at least a "C" or better in CHEM 108, CHEM 112, CHEM 201, and CHEM 202 to register for Chemistry courses numbered 300 or above.

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 301 - Physical Chemistry 1 Credits: 3
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- CHEM 336 - Biochemistry Laboratory I Credits: 1
- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1
- CHEM 425 - Instrumental Analysis Credits: 3
- CHEM 426 - Instrumental Analysis Laboratory Credits: 1

### Additional Chemistry Requirements - Credits: 11

- CHEM 415 - Forensic Analysis Credits: 3
- CHEM 416 - Forensic Analysis Lab Credits: 1
- CHEM 302 - Physical Chemistry II Credits: 3
- CHEM 442 - Inorganic Chemistry Credits: 3
- CHEM 452 - Physical Inorganic Chemistry Laboratory Credits: 1

### Required Math and Science - Credits: 19

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 370 - Molecular Biology Credits: 3
- MATH 230 - Calculus II Credits: 4
- PHYS 213 - General Physics III/ Lab Credits: 4

## Electives

The department of Chemistry strongly recommends the following courses be taken:

- CRIM 110 - Introduction to Criminology and Criminal Justice Systems Credits: 3
- CRIM 343 - Criminal Investigations Credits: 3

## **Chemistry-Biochemistry - 3+3 Pre Pharmacy (LECOM) Track (BS)**

The *Lake Erie College of Osteopathic Medicine* (LECOM) School of Pharmacy and *Slippery Rock University of Pennsylvania* (SLIPPERY ROCK) hereby pledge their commitment to the training of future pharmacy practitioners by joining in this affiliation. SLIPPERY ROCK and LECOM School of Pharmacy will offer an accelerated, six-year Doctor of Pharmacy program. Under the joint agreement between LECOM School of Pharmacy and SLIPPERY ROCK, students will successfully complete the three-year undergraduate program in pre-pharmacy at SLIPPERY ROCK and then matriculate into LECOM School of Pharmacy to complete the professional curriculum of the Doctor of Pharmacy degree (Pharm.D.) in three years. The accelerated professional pharmacy curriculum at LECOM School of Pharmacy will be offered in a rigorous 12-month program per academic year.

### SELECTION OF STUDENTS FOR THE PROGRAM

For admission to Phase I of the Program, students must fulfill the following requirements:

- SAT Scores (or ACT scores) 1100 (total of 24)
- High School Grade Point Average (GPA) 3.2 out of 4.0
- Class rank Top 25% of the class
- Recommendation 2 letters of recommendation
- Potential Evidence of scholarly activities and desire to become a pharmacist
- LECOM School of Pharmacy will **not** accept advanced placement credit of science and mathematics courses into Phase I of the program.

### **Admission to Phase II of the Program**

The LECOM School of Pharmacy will accept **SLIPPERY ROCK** students into the professional pharmacy curriculum who meet the criteria listed below:

- Complete the pre-pharmacy curriculum in Phase I of the 3 + 3 Accelerated Program in Pharmacy as described below (or as amended).
- Earn a minimum GPA of **3.2** in Phase I of the **Program**. No grade lower than a “C.”
- Earn a GPA of **3.2** or higher for science and mathematics courses.
- Must maintain *full-time* student status while at **SLIPPERY ROCK** and complete the Program in the specified time frame.

Submit two letters of recommendation. One of these letters **MUST** be from the Health Professions Committee at **SLIPPERY ROCK**. The letter will address the personal growth of the student during Phase I of the **Program**, as well as the student’s maturity, responsibility, and desire to become a pharmacist.

- Demonstrate leadership potential and commitment to the pharmacy profession.
- Submit a completed application for admission to the LECOM School of Pharmacy.

All questions from students accepted into the 3 + 3 Accelerated Pharmacy Program should be directed to the LECOM School of Pharmacy Admissions Office.

### Conferral of Degrees

The Doctor of Pharmacy (Pharm.D.) degree will be conferred upon successful completion of Phase I and Phase II of the **Program**, both didactic and clinical, and **recommendation** by both the administration and faculty of the LECOM School of Pharmacy. Conferral of the Pharm.D. degree will be at the end of the three year professional program in pharmacy at the LECOM School of Pharmacy. The Bachelor of Science (B.S.) degree will be conferred on “3+3” students after completion of all **SLIPPERY ROCK** requirements which includes completion (*with a C or better*) of all courses in the first semester of year one at LECOM.

## Basic Required Courses

Students must earn a grade of C or better in each of the following 3 Chemistry courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 201 - Organic Chemistry I Credits: 3

## Required Chemistry Courses

- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 301 - Physical Chemistry I Credits: 3
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- CHEM 336 - Biochemistry Laboratory I Credits: 1
- CHEM 337 - Biochemistry II Credits: 3
- CHEM 338 - Biochemistry Laboratory II Credits: 1
- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1
- CHEM 425 - Instrumental Analysis Credits: 3
- CHEM 426 - Instrumental Analysis Laboratory Credits: 1

## Required Math and Science Courses

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 250 - Genetics Credits: 4
- MATH 152 - Elementary Statistics I Credits: 3
- MATH 230 - Calculus II Credits: 4
- PHYS 213 - General Physics III/ Lab Credits: 4

## Liberal Studies Requirements

Students should work closely with an academic adviser to complete additional Liberal Studies requirements to equal 45-48 credits.

## Minor in Chemistry

Chemistry Department

### Requirements for the Minor

#### Required Courses

##### Option A:

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- CHEM 336 - Biochemistry Laboratory I Credits: 1
- CHEM 337 - Biochemistry II Credits: 3

##### Option B:

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 302 - Physical Chemistry II Credits: 3
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 322 - Physical Chemistry Laboratory II Credits: 1
- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1

## Pharmacy - Chemistry

Chemistry Department

A 3+3 affiliation agreement with the Lake Erie College of Medicine's School of Pharmacy (LECOM) would give the students in SRU's Biochemistry program a pharmacy option. Students selecting this option would receive a B.S. degree in Chemistry (Biochemistry Concentration) after completing the first year of a 3-year doctoral program at LECOM. Twenty-seven credits, including 9 in chemistry, 4 in biology, and 6 in liberal studies, would be transferred from LECOM to SRU at that time.

- Each year a list of every student enrolled in Phase I of the program should be submitted to the LECOM School of Pharmacy Admissions Office no later than October 15.
- LECOM Supplemental applications for admission to the LECOM School of Pharmacy must be submitted to the Director of the Pre-Pharmacy Program by January 10 of the year of matriculation into Phase II of the program. Students applying for Phase II of the Program must also complete an on-line PharmCAS Application by January 10 of the year of matriculation. The Director of the Pre-Pharmacy Program will forward the LECOM application to the Office of Admissions at the LECOM School of Pharmacy by February 1 of the year of matriculation into Phase II.
- **LECOM School of Pharmacy will not accept advanced placement credit for prerequisite courses.**
- LECOM School of Pharmacy will not accept credit given for CLEP courses.
- LECOM School of Pharmacy will not accept students into Phase I of the program.
- **Students who have taken Phase I courses in high school must supplement each course with an additional, higher level course in the same discipline.**
- LECOM School of Pharmacy will only accept applications from U.S. citizens and permanent residents.
- The student must be enrolled full-time at the undergraduate institution and complete the program in the time-frame specified in the agreement.
- Students must fulfill all Phase I entrance requirements as specified in the agreement.
- Students cannot take any Phase I courses during the summer.
- The LECOM School of Pharmacy will not accept any student who has repeated courses in Phase I of the program.
- **Students must demonstrate that they can handle a full course load. Therefore, the student should not withdraw from any Phase I course which would result in the reduction of their course load.**
- **If applying through the agreement, the LECOM School of Pharmacy is the student's first choice. If the student is accepted into the LECOM program, the student should not accept an offer from another institution.**
- **Any Phase I course cannot be taken pass/fail.**
- **All questions from students accepted into the agreement should be directed to the institutions pre-pharmacy advisor.**

For admission to Phase I of the Program, students must fulfill the following requirements:

1. SAT scores (or ACT scores) - 1170 (total of 26)
2. High School Grade Point Average - 3.5 or better out of 4.0
3. Candidate potential - Evidence of scholarly activities and desire to become a pharmacist

For admission to Phase II of the Program, students must fulfill the following requirements:

1. Complete the pre-pharmacy curriculum in Phase I of the "3+3" Accelerated Pharmacy Program, as described below.
2. Earn a minimum GPA of 3.4 in Phase I of the program with no individual grade lower than a "C".
3. Earn a GPA of 3.4 or higher for science and mathematics courses.
4. Submit two letters of recommendation. One of these letters must be from the Health Professions Committee at SRU. The letter will address personal growth of the student during Phase I of the program, as well as the student's maturity, responsibility, and desire to become a pharmacist.
5. Demonstrates leadership potential and commitment to the pharmacy profession.
6. Submit a completed application for admission to the LECOM School of Pharmacy.

- **Beginning with the students applying to the LECOM School of Pharmacy in Fall 2007, an in-person interview at LECOM is required.**
- **Beginning with the students applying to the LECOM School of Pharmacy in Fall 2007, the Pharmacy College Admissions Test (PCAT) is strongly recommended.**

All courses from LECOM transfer to the B.S. Chemistry program – Biochemistry/Pharmacy option. Four LECOM courses replace four SRU courses from our current Biochemistry program. The SRU courses are Microbiology (Biol 330), Cell Biology (Biol 335), Molecular Biology (Biol 370) and either Analytical Chemistry (Chem 350, 351) or Instrumental Analysis (Chem 425, 426).

## Required courses at SRU:

### Biology Courses - Credits: 8

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 250 - Genetics Credits: 4

### Chemistry Courses - Credits: 28

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 335 - Biochemistry I Credits: 3
- CHEM 336 - Biochemistry Laboratory I Credits: 1
- CHEM 337 - Biochemistry II Credits: 3
- CHEM 338 - Biochemistry Laboratory II Credits: 1

### Chemistry Electives - Credits: 4

- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1
- CHEM 425 - Instrumental Analysis Credits: 3
- CHEM 426 - Instrumental Analysis Laboratory Credits: 1

### Mathematics Courses - Credits: 11

- MATH 152 - Elementary Statistics I Credits: 3
- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4

### Physics Courses - Credits: 7



- PHYS 211 - General Physics I/ Lab Credits: 4
- PHYS 213 - General Physics III/ Lab Credits: 4

## **Teacher Certification in Chemistry**

### **Requirements for the Certification**

Teacher certification is earned through the master of education degree at Slippery Rock University. Students seeking secondary school teaching certification in chemistry must earn a bachelor of arts or a bachelor of science degree in chemistry and contact the Department of Secondary Education/Foundations of Education concerning its graduate program in education. Information about this program, including prerequisites for admission, may be obtained from the secondary education/foundations of education office in 114 McKay Education Building.

## **Exercise and Rehabilitative Sciences**

304 Patterson Hall  
724-738-4864

Exercise and Rehabilitative Sciences

### **Chair**

Patricia Pierce

### **Assistant Chairs**

Jeffrey Lynn  
Jacqueline Williams

### **Secretary**

Deborah Glenn  
Connie Schmidt

### **Faculty**

Jonathan Anning, Jeremy Dicus, Susan Herman, Michael Holmstrop, Brock Jensen, Beth Larouere, Jeffrey Lynn, Patricia Pierce, William Ryan, Marketa Schublova, Bonnie Siple, Kimberly Smith, Steven Verba, Jacqueline Williams, Carena Winters, Scott Zema

The Department of Exercise and Rehabilitative Sciences houses two well-established and accredited undergraduate programs, athletic training and exercise science. Both programs provide extensive opportunities for hands-on experiences in work sites through internships/practicums.

## **Athletic Training (BS)**

Exercise and Rehabilitative Sciences

"The virtues of the Athletic Training Faculty, Staff, and Students constitute the confidence I now possess for personal learning and my educating of others. Slippery Rock University served as the keystone necessary for me to achieve my goals in education, clinical experience, and sport injury research."

**Anthony House, ATC**  
**UNLV Graduate Assistant**  
**Kinesiology/ATEP Administration**

The Athletic Training Education Program (ATEP) prepares selected undergraduate students with the knowledge, skills, and abilities to provide care to athletes and the physically active within the six domains of athletic training practice. The Slippery Rock University Athletic Training Education Program is accredited by the Commission on Accreditation of Athletic Training Education (<http://www.caate.net/>). Students fulfilling the total 120 credit hours of academic program requirements will graduate with a bachelor of science degree and a major in athletic training.

SRU sponsors a unique accelerated ATEP that allows athletic training students to graduate in December of their senior (fourth) year. This is accomplished with a highly structured curriculum that is sequenced over three and a half (3.5) years or seven (7) semesters. This "accelerated" program allows SRU's athletic training students to graduate a semester early, sit for the Board of Certification (BOC) credentialing examination before their peers at other universities and be more competitive for graduate assistantships, employment and seats in other medical preparation programs. Students can also complete the program in the traditional four (4) years by completing necessary liberal studies and electives during the last semester.

Upon formal acceptance into the professional strand of the ATEP, students must acquire and maintain athletic training student liability insurance and professional rescuer level first aid and cardiopulmonary resuscitation certifications. These are acquired in advance of enrollment in the clinical course Practicum in Athletic Training (ERS 387), which is taken four times over four consecutive semesters to total 12 credits. This is the equivalent of a 12-credit internship. Instead of finishing all coursework and then completing an internship, the athletic training student participates in his or her clinical experience under the direct supervision of an approved clinical instructor (certified athletic trainer or other medical professional) while taking the relevant coursework. Thus, there is immediate opportunity for application of theory to practice. Although most of the clinical experience takes place on-campus with SRU's certified athletic trainers and varsity athletic teams, all athletic training students are required to spend at least one rotation off-campus with one of our approved clinical instructors at an affiliate site. Athletic training students are required to provide their own transportation to and from the off-campus affiliate sites.

Athletic training students are active, dues-paying members of the SRU Athletic Training Association, National Athletic Trainers' Association (NATA), Eastern Athletic Trainers' Association (EATA), and Pennsylvania Athletic Trainers' Society (PATS). They often attend the annual conferences of those professional organizations and participate in various field trips, surgical observations, and physicians' clinics. Many athletic training students have pursued external internships with the assistance of the faculty. Some of these include internships with the Pittsburgh Steelers, Pittsburgh Pirates, New York Jets and the Wide World of Sports Complex at Disney World in Orlando, FL. Rock athletic training students are some of the most successful students in being awarded NATA and EATA sponsored scholarships.

Student-athletes participating in varsity sports sponsored by the SRU Athletic Department who are granted admission to the ATEP should make the program coordinator aware of their active participation in their respective sport. Although the ATEP faculty work very hard with the coaching staff to support student-athletes in their attempt to participate in varsity athletics while matriculating through the ATEP, success is dependent upon each student's ability to manage their time effectively while maintaining required standards of academic performance in the didactic (classroom) and clinical education portions of the ATEP. Because all sports are different and all sport seasons vary in time and intensity, not all student-athletes will progress through the ATEP the same way. In order to meet the minimum standards of completion of the ATEP, student-athletes will be required to enroll one additional semester (4 years or 8 semesters total) or more to guarantee that a quality educational and clinical experience has been achieved and that all competencies and proficiencies have been successfully mastered.

**Additional costs related to the Athletic Training Education Program**

\$40.00	Required/Approved Uniforms (minimum of one uniform shirt)
85.00	NATA Membership Annual Dues (includes NATA, EATA & PATS)
10.00	SRU Athletic Trainers' Association Annual Dues
35.00	Athletic Training Student Liability Insurance Annual Fee
25.00	Laboratory Fees (Approximate)
60.00	PA Criminal Background Check, PA Child Abuse History Clearance, FBI Fingerprinting Clearance
50.00	Minimum for Transportation to off-campus clinical rotation (Cost dependent on location of assignment [range of 3 to 22 miles from SRU], cost of gas during specific semester of off campus assignment, and opportunities to car pool.)

\*All costs are subject to change.

### **Policy for Application to the Athletic Training Education Program**

University acceptance to pursue the athletic training major does NOT guarantee admission into the professional strand of the ATEP.

### **Technical Standards for the SRU Athletic Training Education Program**

The ATEP at Slippery Rock University is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the ATEP establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills, and competencies of an entry-level athletic trainer, as well as meet the expectations of the program's accrediting agency (CAATE). All students must meet the following abilities and expectations. In the event a student is unable to fulfill these technical standards the student will not be admitted to the program.

Compliance with the programs technical standards does not guarantee a student's eligibility for the BOC credentialing examination.

### **Candidates for selection to the Athletic Training Education Program must demonstrate:**

1. The mental capacity to assimilate, analyze, synthesize, integrate concepts and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm.
2. Sufficient postural and neuromuscular control, sensory function, and coordination to perform appropriate physical examination using accepted techniques; and accurately, safely and efficiently use equipment and materials during assessments and the treatment of patients.
3. The ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak with English language at a level consistent with competent professional practice.
4. The ability to record the physical examination results and treatment plan clearly and accurately.
5. The capacity to maintain composure and continue to function well during periods of high stress.
6. The perseverance, diligence and commitment to complete the Athletic Training Education Program as outlined and sequenced.
7. Flexibility and the ability to adjust to changing situations and uncertainty in clinical situations.
8. Affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

Candidates for selection to the professional strand of the ATEP will be required to verify that they understand and meet these technical standards. The Office of Diversity and Equal Opportunity will evaluate a student who states that he/she cannot meet the program's technical standards as outlined in the Office of Diversity and Equal Opportunity policies. All athletic training students are required to have a physical examination upon admittance into the professional strand of the education program. Students are required to use the SRU pre-participation examination form.

This will be done to ensure that each student's physical and mental health will permit him or her to meet the established technical standards.

Admission into the professional strand of the ATEP is competitive. The number of seats in the program is limited because of the faculty-to-student ratio recommended for accreditation. Formal application to the professional strand of the ATEP must be completed by March of the student's freshman (first) year on campus. Formal application for admission consideration requires the following evidence:

1. Completion of ERS 107 (Introduction to Athletic Training) at Slippery Rock University with a minimum grade of "B."
2. Completion of ERS 101 (Applied Anatomy) with a minimum grade of "B".
3. A cumulative GPA of 2.750 or above in athletic training major courses and overall.
4. Completion of 50 hours of athletic training observation under a BOC certified athletic trainer (these 50 hours may be accumulated with the start of the fall semester of the student's first year on campus). The 50 hours must also be verified by the supervising the certified athletic trainer being observed. Licensed physical therapists that also hold the ATC credential may be observed as well.
5. Active membership in the Slippery Rock University Athletic Training Association.
6. Letter of application/intent, resume, and SRU transcript or Rocktalk printout of grades.
7. Letter of recommendation from the BOC certified athletic trainer who supervised the athletic training observation.
8. A 500-word essay on a topic to be announced each year.

Applicants will be ranked on the basis of GPA. Top ranked applicants will be scheduled for a personal interview. Final admission decisions will be made on the basis of academic, personal, and professional qualifications as evidenced by the student's application materials and interview responses. Students will be notified of admission decisions by the end of the freshman (first) year. Because the number of applicants may exceed the available seats, meeting the minimum criteria does not guarantee acceptance into the program. Students who have been selected for admission to the ATEP officially begin the professional strand of the major during the sophomore (second) year.

#### **Policy for Retention in the Athletic Training Program**

Students who are accepted into the professional strand of the ATEP are required to satisfy didactic and clinical education requirements throughout their remaining semesters in the program. Specifically, students must maintain a major and overall GPA at or above 2.75 and may not receive a grade of "D" or more than two grades of "C" in required major courses while enrolled in the professional strand of the ATEP. Failure to maintain the minimum requirements for didactic and clinical education will result in one semester of probation. Students who must repeat a major course requirement may have to do so with the next cohort. If the deficiencies are not corrected to the satisfaction of the faculty by the end of the probationary period, the student will be permanently dismissed from the program. Upon recommendation of the faculty, students achieving compliance with the minimum standards following a probationary status will be permitted to complete the ATEP, which may require additional semesters.

#### **Board of Certification Credentialing Examination**

Athletic training students who successfully complete all of the program requirements and receive the ATEP coordinator's endorsement are eligible to take the BOC credentialing examination administered by the BOC. Slippery Rock University graduates obtaining BOC certification are eligible for state certification by the Pennsylvania State Boards of Medicine and Osteopathic Medicine, as well as with other state regulatory agencies.

#### **Transfer Students and Upperclassmen**

The Athletic Training Education Program requires a minimum of 3.5 full years (seven semesters) of coursework and a clinical experience in a structured and sequenced curriculum. Due to this rigorous program, transfer students and upperclassmen declaring a major in athletic training are placed at the freshman level. As required for all other ATEP students, transfer students and upperclassmen must complete the above application process and coursework.

## **Requirements for the Major - Credits: 60**

## Professional Strand Courses - Credits: 45

- ERS 107 - Introduction to Athletic Training Credits: 3
- ERS 117 - Prevention & Emergency Care in Athletic Training Credits: 3
- ERS 220 - Clinical Experiences in Athletic Training I Credits: 1
- ERS 221 - Lower Extremity Pathology, Diagnosis and Manual Techniques in Athletic Training Credits: 4
- ERS 222 - Fundamentals of Research in Athletic Training Credits: 3
- ERS 240 - Clinical Experiences in Athletic Training II Credits: 1
- ERS 241 - Upper Extremity Pathology, Diagnosis and Manual Techniques in Athletic Training Credits: 4
- ERS 307 - Concepts of General Medicine in Athletic Training Credits: 4
- ERS 317 - Therapeutic Modalities Theory & Technique Credits: 4
- ERS 320 - Clinical Experiences in Athletic Training III Credits: 1
- ERS 340 - Clinical Experiences in Athletic Training IV Credits: 1
- ERS 347 - Therapeutic Rehabilitation in Athletic Training Credits: 4
- ERS 407 - Health Care Administration in Athletic Training Credits: 3
- ERS 417 - Wellness and Reconditioning in Athletic Training Credits: 3
- ERS 427 - Mastery in Athletic Training Credits: 3
- ERS 497 - Clinical Synthesis in Athletic Training Credits: 3

## Other Major Requirements - Credits: 15

- ERS 101 - Applied Anatomy Credits: 3
- ERS 201 - Exercise Physiology Credits: 3
- ERS 202 - Biomechanics Credits: 3
- PE 237 - Emergency Medical Response Credits: 3
- HLTH 424 - Nutrition and Exercise Credits: 3

## Exercise & Rehabilitative Science College-Wide Requirement - Credits: 13

- BIOL 216 - Anatomy and Physiology/Lab Credits: 3
- BIOL 217 - Anatomy and Physiology/Lab Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- PHYS 201 - Elements of Physics I/ Lab Credits: 4

## Free Electives

Major Electives, Other Liberal Studies Electives, and Free Electives to complete a degree with 120 credits. Some suggested courses are ERS 302 and ERS 488.

## **Exercise Science (BS)**

Exercise and Rehabilitative Sciences

*"I am now in my second semester at East Carolina University in the Exercise Physiology graduate program. It is amazing how advanced Slippery Rock's Exercise Science program is in comparison to other programs. Some students in my class had never taken a blood pressure or skinfold measurement before let alone have experience with EKGs, stress testing, metabolic equations, fitness assessments and personal training clients. The knowledge and hands on experience I have gained from SRU has helped me tremendously. I am so proud to represent SRU Exercise Science! "*

**Anna Kate Bires (2011)**

*"I am about half-way through my first semester of graduate school at Chatham for Occupational Therapy, along with four other SRU Exercise Science grads. We have found that the exercise science faculty has prepared us so well for graduate school compared to others in our class (especially study habits)."*

**Julie Black (2011)**

*"Slippery Rock started it all for me. The exercise science program afforded me the opportunities to pursue the career path towards my master's degree. I am now getting ready to graduate with a Master of Medical Science and work as a Physician Assistant."*

**Andrea Campbell (2008)**

*"I am about half-way through my first semester of physical therapy (PT) school and I must say that after experiencing our first round of exams I couldn't be prouder of my undergraduate education! I can't even begin to describe how well the Exercise Science Program prepared me. Between client interaction, assessments and prescribing exercise, PT school is just building on the strong foundation of my degree. I really do feel a step ahead of the other students in my program!"*

**Jackie Martin (2010)**

*"I would highly recommend SRU Exercise Science as preparation for medical school. Admission committees seemed to really like the fact that I was not the typical biology or biochemistry major applying to their school. As you know, when the twenty applications being reviewed with yours are coming from Ivy League schools, it is a must to have things that make yours jump out. Having a 'non-traditional' pre-med major is a great way to do this. Also, most medical schools want their students to have some type of research experience. While the majority of applicants do, very few have any interest in the research they did and many didn't even understand what they did. A great thing about Exercise Science was the fact that I could get involved with a research project that I enjoyed and completely understood. My advice is to study what interests you. In hindsight, Exercise Science at SRU was the best path for me to medical school, and I would highly recommend it to others."*

**Jeremy Gebhart (2009)**

*"The Exercise Science program at Slippery Rock University builds the foundation of a lifetime for pursuing any career in the medical field. As a graduate from the Exercise Science program at Slippery Rock University and currently a Doctorate of Physical Therapy student here as well, I have excelled in nearly every aspect*

*and feel far ahead of the game. I attribute my success as a physical therapy student to one of the best Exercise Science programs in the nation, which has prepared me for just about anything. The program combines a truly excellent staff with an intense, hands-on curriculum that is top-notch."*

### **Phil Scalise (2011)**

#### Program Overview

The Exercise Science major at SRU prepares undergraduate students with the knowledge and skills to be accepted and successful in a variety of graduate programs in the health care professions. Students will also be prepared to work as a professional in the health and fitness industry. Exercise Science professionals graduating from our program are skilled in:

- Evaluating health behaviors & risk factors
- Conducting fitness assessments
- Developing and implementing safe & effective exercise prescriptions
- Motivating individuals to modify health habits and maintain positive lifestyle behaviors

The Exercise Science program at Slippery Rock University is one of the most prestigious programs of its kind in the country. Students in this major are prepared to become leaders in the industry while developing expertise in utilizing cutting edge technology and hands on learning experiences under the careful supervision of a student-centered faculty. The curriculum provides a strong science base including anatomy, exercise physiology, and biomechanics, and then allows application of knowledge in practical experiences working with "real" people. The Exercise Science Program became one of the first six schools in the nation to receive accreditation from the Commission on Accreditation of Allied Health Programs (CAAHEP), the largest programmatic accreditor in the health-sciences field. The program is also endorsed by the National Strength and Conditioning Association. With a degree in Exercise Science from Slippery Rock University, graduates are recognized as qualified and respected professionals in the field.

#### Mission Statement

The purpose of the Exercise Science Program at Slippery Rock University is to develop competent and contributing entry-level professionals in the field of exercise science in the cognitive (knowledge), psychomotor (skills) and affective (abilities) learning domains. This is accomplished by providing quality academic preparation that incorporates both classroom and supervised practical experiences.

#### Program Outcomes

- Professional Interaction and Communication

To interact and communicate effectively by presenting information in oral, written, and technology formats; collaborating with professionals and peers; expressing ideas clearly; and giving and receiving feedback.

- Professional Competence

To utilize knowledge, skills, and abilities to evaluate health behavior and risk factors; develop, implement, and evaluate exercise and wellness programs, and employ behavioral strategies to motivate individuals to adopt and maintain positive lifestyle behaviors.

●□□□□□□□□ Professional Ethics and Conduct:

To demonstrate behavior that preserves the integrity of a profession, prevents misrepresentation, and protects the consumer.

●□□□□□□□□ Professional and Personal Development:

To continuously improve knowledge, skills, and abilities and to uphold a professional image through actions and appearance.

●□□□□□□□□ Professional Decision Making (Problem Solving)

To demonstrate critical thinking by making decisions based on multiple perspectives and evidence-based practice.

### 3+3 Physical Therapy specialization

Exercise Science is an approved undergraduate major for the 3+3 Physical Therapy specialization. This unique program provides students with the opportunity to earn a Doctor of Physical Therapy degree (DPT) in six years rather than seven. This entails three years in the Exercise Science undergraduate program and three years in the Graduate School of Physical Therapy. During the junior year students would apply for admission into the DPT Program. If accepted, the first year in the DPT Program will meet the requirements for the undergraduate degree. This is a highly accelerated and challenging academic program designed for incoming freshmen only. *Participation in the undergraduate commencement ceremony takes place after the first full year of Physical Therapy school is successfully completed.*

#### Academic Policies for Students in the Exercise Science Major

*Effective for students entering the major Fall 2010 and after*

- I. Policy for achieving and maintaining "Sufficient Academic Performance"\*
  - A. At the end of the semester in which a student has earned 40 credits (and every semester thereafter), the Major and Overall GPA will be reviewed:
    - i. A student must earn a 2.75 Major and Overall GPA to achieve "Sufficient Academic Performance" and continue in the Exercise Science major.
    - ii. A student earning below a 2.75 in either the Major or Overall GPA at any time after earning 40 credits will be placed on a "one semester probation." \*\* He/she must increase his/her GPA to 2.75 or higher by the end of the "one semester probation" or be PERMANENTLY removed from the Exercise Science major. The student will be notified by email of his/her status following the "one semester probation." A student who has not achieved "Sufficient Academic Performance" will have his/her major changed to Exploratory and all Exercise Science courses will be removed from his/her schedule.



iii. A student can be placed on a "one semester probation" a maximum of two times as an Exercise Science major. He/she will be PERMANENTLY removed from the Exercise Science major if his/her Major or Overall GPA drops below a 2.75 a third time.

iv. A student on a "one semester probation" may not enroll in 400 level Exercise Science classes unless he/she is repeating the course(s).

- B. A transfer student who enters from another university or a SRU student who changes his/her major to Exercise Science:
- i. With 40 or more earned credits will have a one-semester extension before his/her Major and Overall GPA are reviewed to determine if he/she has achieved "Sufficient Academic Performance".
  - ii. With less than 40 earned credits will follow Policy I.A above.
- C. An incoming FYRST student earning college credits prior to entering SRU may reach 40 credits before completing two semesters at SRU. In this case, the review to determine "Sufficient Academic Performance" will not begin until the student has completed two semesters as a student in the Exercise Science major.

II. Policy for earning acceptable grades in Exercise Science courses

- A. A student must earn a grade of "C" or better in ALL Required Upper Level Courses (400 level courses).
- B. A student will not be permitted to begin an internship unless he/she has "Sufficient Academic Performance" and he/she has earned a grade of "C" or better in ALL Required Upper Level Courses (400 level courses).
- C. A student must also earn a grade of "C" or better in ERS400, ERS401, and ERS402 before he/she is allowed to take ERS410, ERS411, and ERS412.

III. Policy for changing to the Exercise Science major

- A. A SRU student wishing to change his/her major to Exercise Science MUST have an overall GPA of 2.75.

IV. Additional costs associated with the Exercise Science major

- A. A student in the Exercise Science major is required to maintain current CPR/AED, First Aid, and Student Professional Liability Insurance while enrolled in ERS412 and ERS450 at his/her own cost. (On-line CPR/AED and First Aid certifications are not acceptable).

\* "Sufficient Academic Performance" is defined as having a Major and Overall GPA of 2.75 or higher. The Major GPA is comprised of Required Basic Courses, Required Upper Level Courses and Exercise and Rehabilitative Science College Wide Requirements. Please see My Rock Audit for specific courses.

\*\* "One semester probation" is defined as the initial semester after which "Sufficient Academic Performance" was not achieved and the first occurring summer.

## Requirements for the Major - Credits: 57

### Required Courses

#### Required Basic Courses - Credits: 21

- ERS 100 - Introduction to Exercise Science: Careers and Content Credits: 3
- ERS 101 - Applied Anatomy Credits: 3
- ERS 200 - Measurement and Statistical Application in Exercise Science Credits: 3
- ERS 201 - Exercise Physiology Credits: 3
- ERS 202 - Biomechanics Credits: 3
- ERS 301 - Exercise Leadership: Group Fitness Credits: 3
- ERS 302 - Exercise Leadership: Resistance Training Credits: 3

## Required ES Upper Level Courses - Credits: 36

Note: Students must have achieved "Sufficient Academic Performance" to take these courses. Students must earn a "C" or better in all of the following courses.

- HLTH 424 - Nutrition and Exercise Credits: 3
- ERS 400 - Wellness Promotion and Programming Credits: 3
- ERS 401 - Fitness Assessment Credits: 3
- ERS 402 - Exercise Prescription Credits: 3
- ERS 403 - Advanced Exercise Physiology Credits: 3
- ERS 410 - Clinical Exercise Physiology Credits: 3
- ERS 411 - Exercise Science: Special Populations and Conditions Credits: 3
- ERS 412 - Exercise Science: Senior Synthesis Credits: 3
- ERS 450 - Exercise Science Internship Credits: 12

## College/Department Requirements (Liberal Studies) - Credits: 13

- BIOL 216 - Anatomy and Physiology/Lab Credits: 3
- BIOL 217 - Anatomy and Physiology/Lab Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- PHYS 201 - Elements of Physics I/ Lab Credits: 4

# Geography, Geology, and the Environment

319 Advanced Technology and Science Hall  
724-738-2048

Geography, Geology, and the Environment

Geology and Geography are recognized for their contributions to the better understanding of the earth, nature-society relations, and global and regional situations as well as local issues. Our department's educational mission is to advance the perspectives and insights of geology, geography, and environmental science and studies via high quality curricular programs for our majors and high quality liberal studies courses for non-majors. Complementary missions are to extend knowledge in our disciplines through research and to provide service to the university and our region.

### **Chair**

Jack Livingston

### **Secretary**

Cindy Schnur

## **Faculty**

Patrick Burkhart, Patricia Campbell, Xianfeng Chen, James Hathaway, Jack Livingston, Carolyn Prorok, Tamra Schiappa, Langdon Smith, Julie Snow, Michael Stapleton, Jialing Wang, Michael Zieg

The Department of Geography, Geology, and the Environment offers a variety of field based perspectives on the study of the earth and people's relation to it. Students can focus on the physical nature of the earth, on the nature of places on the earth's surface, or on the geographic study of economic, political, and cultural processes. Or students may take a more interdisciplinary approach and integrate knowledge from many disciplines in the study of environmental issues.

## **Environmental Geoscience (B.S) - Track in Geology**

Geography, Geology and the Environment

The environmental geoscience (BS) track in geology focuses on providing students with a scientific understanding of the Earth and surrounding environment. The student in geology gains an understanding of the various terrestrial processes and features (mountains, oceans, volcanoes, glaciers); the immenseness of geologic time, the history of the earth and organisms that inhabit it (fossils); the role of water, fuel, and mineral resources in the development of civilization; and the close interaction between the geologic and organic environments.

Demand for the professional geologist comes from the needs of engineering, hydrogeologic and environmental firms; geological surveys; oil, gas and mining companies; state and national parks; museums; conservation agencies; planning commissions; and teaching institutions. A student who completes a bachelor of science in geology will have the basis for entry to graduate schools or for employment as a geologist.

### **Major Requirements - Credits: 55**

#### **Environmental Geoscience Core - Credits: 13**

- EGEO 101 - Physical Geology Credits: 3
- EGEO 201 - Earth Materials and Processes Credits: 3
- EGEO 202 - Earth History Credits: 3
- EGEO 203 - Quantitative Methods Credits: 3
- EGEO 212 - Earth History Lab Credits: 1

#### **Geology Track Core Requirements - Credits: 22**

- EGEO 271 - Geotechniques: Lab Credits: 2
- EGEO 303 - Concepts of Evolution and the Fossil Record Credits: 3
- EGEO 304 - Paleontology Laboratory Credits: 1
- EGEO 327 - Structural Geology Credits: 3
- EGEO 351 - Mineralogy Credits: 4
- EGEO 352 - Petrology Credits: 4
- EGEO 362 - Stratigraphy Credits: 3
- EGEO 482 - Senior Seminar Credits: 1
- EGEO 272 - Geotechniques: Geologic Reports Credits: 1

#### **Electives - Geology Track - Credits: 9**

- EGEO 242 - Glacial Geology Credits: 3
- EGEO 323 - Planetary Geology Credits: 3
- EGEO 328 - Plate Tectonics Credits: 3
- EGEO 341 - Geomorphology Credits: 3
- EGEO 360 - Introduction to Hydrology Credits: 3
- EGEO 448 - X-ray Spectrometry Credits: 3
- EGEO 451 - Geochemistry Credits: 4
- EGEO 453 - Geotechniques: Geochemistry Credits: 1
- EGEO 460 - Hydrogeology Credits: 3
- EGEO 469 - Field Investigations in the Geosciences Credits: 1-3
- EGEO 476 - Geotechniques: Geophysics Credits: 1
- EGEO 498 - Selected Topics Credits: 1 to 3

## Field Camp - Credits: 4

Minimum 4 credits at an acceptable field station.

- EGEO 399 - Field Camp Credits: 4

## Related Courses - Credits: 7

- GES 325 - Introduction to Geographic Information Science Credits: 3  
OR
- GES 410 - Remote Sensing Credits: 3
- MATH 230 - Calculus II Credits: 4

## Required Related Courses (7-8 credits - also included in Liberal Studies)

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- PHYS 212 - General Physics II/ Lab Credits: 3  
OR
- PHYS 213 - General Physics III/ Lab Credits: 4

## Environmental Geoscience (BA)

Geography, Geology and the Environment

The environmental geoscience (BA) focuses on providing students with a scientific understanding of the Earth and surrounding environment. The student in geology gains an understanding of the various terrestrial processes and features (mountains, oceans, volcanoes, glaciers); the immenseness of geologic time, the history of the earth and organisms that inhabit it (fossils); the role of water, fuel, and mineral resources in the development of civilization; and the close interaction between the geologic and organic environments.

Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that environmental geoscientists must have.

## Requirements for the Major - Credits: 40

### Required Courses - Credits: 13

- EGEO 101 - Physical Geology Credits: 3
- EGEO 201 - Earth Materials and Processes Credits: 3
- EGEO 202 - Earth History Credits: 3
- EGEO 203 - Quantitative Methods Credits: 3
- EGEO 212 - Earth History Lab Credits: 1

### Required Related Courses- Credits: 4

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1

### Core Program Requirements - Credits: 10

- EGEO 121 - Meteorology Credits: 4
- EGEO 271 - Geotechniques: Lab Credits: 2
- EGEO 272 - Geotechniques: Geologic Reports Credits: 1
- EGEO 341 - Geomorphology Credits: 3

### Major Electives - Credits: 13

Choose any EGEO course at the 200 level or higher and courses below.

- GES 325 - Introduction to Geographic Information Science Credits: 3
- GES 410 - Remote Sensing Credits: 3
- GES 425 - Advanced Geographic Information Systems Credits: 3
- MARS 362 - Marine Geology Credits: 3

### Natural Science & Mathematics College-Wide Requirement - Credits: 12

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 125 - Precalculus Credits: 4
- OR
- MATH 225 - Calculus I Credits: 4
- PHYS 201 - Elements of Physics I/ Lab Credits: 4
- OR
- PHYS 211 - General Physics I/ Lab Credits: 4

### Modern Language Requirement - Credits: 0-9

Must satisfy language requirement at the 103 level

## **Environmental Geoscience (BS) - Track in Environmental Science**

Geography, Geology and the Environment

### **Coordinator**

Michael Stapleton

Environmental science is the integration of scientific knowledge from many disciplines in order to understand the interrelationships between human activities and the environment. Environmental science majors are exposed to the general principles of biology, chemistry, geology, geography, meteorology, and physics. Thus, it is not a focus on one of these disciplines, but involves all of them and their interaction within environmental systems.

Environmental science majors could enter several general fields:

- Industry and Consulting, monitoring and investigating the contamination of the air, land and water. Responsibilities could range from working to reduce potential environmental contamination in an industrial setting, to remediating contamination that resulted from past disposal practices.
- Local, State, or Federal Environmental Agencies, working to monitor, enforce, and develop environmental policy and regulations.
- Environmental Research, working to understand and solve environmental problems. Students would continue their education in a graduate program focusing on an area of interest to them.

The program is rich in laboratory and field experiences that support our lecture classes. Students gain important practical experience working in the field studying environmental systems and problems. In addition, students are required to complete an approved internship or research project. We train our students not only with a liberal arts education and a broad-based scientific background, but with the skills that will enable them to succeed in a competitive work force. The department encourages undergraduate student research. Opportunities abound for students to work directly with the faculty on independent research projects.

ENVS 450 or 480 must be completed during the summer after your Junior or Senior year.

## **Requirements for the Major - Credits: 56**

### **Required Core Courses - Credits: 13**

- EGEO 101 - Physical Geology Credits: 3
- EGEO 201 - Earth Materials and Processes Credits: 3
- EGEO 202 - Earth History Credits: 3
- EGEO 203 - Quantitative Methods Credits: 3
- EGEO 212 - Earth History Lab Credits: 1

### **Core Requirements - Credits: 21**

- BIOL 357 - Environmental Microbiology / Lab Credits: 4
- BIOL 401 - Ecology Credits: 3

- EGEO 121 - Meteorology Credits: 4
- EGEO 360 - Introduction to Hydrology Credits: 3
- EGEO 451 - Geochemistry Credits: 4
- GES 324 - Environmental Law and Policy Credits: 3

## Electives - Credits: 7

Marine Science Summer Course may also be selected

- BIOL 305 - Wetlands and Aquatic Plants / Lab Credits: 3
- BIOL 306 - Freshwater Biomonitoring / Lab Credits: 3
- CHEM 340 - Air Quality Assessment Credits: 4
- CHEM 370 - Water Quality Assessment Credits: 4
- EGEO 341 - Geomorphology Credits: 3
- EGEO 340 - Air Pollution Meteorology Credits: 3
- EGEO 453 - Geotechniques: Geochemistry Credits: 1
- EGEO 460 - Hydrogeology Credits: 3
- GES 315 - Cartography I Credits: 3
- GES 325 - Introduction to Geographic Information Science Credits: 3
- GES 410 - Remote Sensing Credits: 3
- GES 356 - Earth's Changing Climate Laboratory Credits: 1
- GES 426 - Environmental Modeling Credits: 3

## Required Internship, Research, or Additional Elective - Credits: 3

Marine Science Summer courses may also be used at the 300 or 400 level

- ENV5 450 - Environmental Science Internship Credits: Up to 12
- ENV5 480 - Environmental Systems Analysis Credits: 3
- BIOL 305 - Wetlands and Aquatic Plants / Lab Credits: 3
- BIOL 306 - Freshwater Biomonitoring / Lab Credits: 3
- CHEM 340 - Air Quality Assessment Credits: 4
- CHEM 370 - Water Quality Assessment Credits: 4
- EGEO 340 - Air Pollution Meteorology Credits: 3
- EGEO 460 - Hydrogeology Credits: 3
- EGEO 469 - Field Investigations in the Geosciences Credits: 1-3
- GES 315 - Cartography I Credits: 3
- GES 325 - Introduction to Geographic Information Science Credits: 3

## Required Related Courses - Credits: 6

- BIOL 101 - General Biology Credits: 3
- CHEM 200 - Fundamentals of Organic Chemistry Credits: 3

## Required Statistics Course - Credits: 3

Choose one of the following courses:

- BIOL 325 - Biometry / Lab Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3

## Additional Physical/Natural Science or Math Course - Credits: 3

Choose any 300/400 level BIOL, CHEM, EGEO, MATH, or PHYS.

May **not** use:

- BIOL 300
- EGEO 368
- MATH 310
- MATH 311
- PHYS 317

## Required Related Courses (7 credits - also included in Liberal Studies)

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- PHYS 213 - General Physics III/ Lab Credits: 4

## Geography (BS) - Track in Environment and Society

Geography, Geology, and the Environment

The B.S. Geography track in Environment and Society creates a third emphasis covering a core of geographical knowledge while giving deeper exploration of human geography.

## Major Requirements - Credits: 49

### Basic Core - Credits: 15

- GES 150 - The Natural Environment Credits: 3
- GES 302 - Cultural Geography Credits: 3
- GES 315 - Cartography I Credits: 3
- GES 331 - Economic Geography Credits: 3
- GES 489 - Field Studies Credits: 3

### Techniques Core - Credits: 7

- GES 115 - Map Reading and Interpretation Credits: 1
- GES 220 - General Methods of Fieldwork Credits: 3
- GES 325 - Introduction to Geographic Information Science Credits: 3



## Regional Geography - Credits: 3

Choose one course from the following:

- GES 303 - Asia Credits: 3
- GES 307 - Australia Credits: 3
- GES 309 - Africa Credits: 3

## Planning and Policy - Credits: 3

Choose one course from the following:

- GES 215 - Rural and Urban Planning Credits: 3
- GES 324 - Environmental Law and Policy Credits: 3

## Human Geography - Credits: 3

Choose one course from the following:

- GES 345 - Population Analysis Credits: 3
- GES 361 - Gender & the Environment Credits: 3
- GES 375 - Geography of Intolerance Credits: 3

## Additional Environment & Society courses - Credits: 6

- GES 244 - Environmental Justice Credits: 3
- GES 444 - World Environmental Thought Credits: 3

## Geography Electives - Credits: 9

Choose any three 300/400 level GES courses

## Required Mathematics - Credits: 3

- MATH 152 - Elementary Statistics I Credits: 3

# **Geography (BS) - Track in Environmental Studies**

Geography, Geology and the Environment

### **Coordinator**

Jack Livingston

Students in the environmental studies program study the links between humans and their environment. This program takes an interdisciplinary approach and integrates knowledge from the social and natural sciences in the study of environmental issues. An important goal of the program is for students to understand the relationships that exist

between social, behavioral, and environmental systems. We emphasize the collection, analysis, and representation of earth data at scales ranging from the local to the global. Toward the end of their studies, students identify a research problem, gather and analyze data, and prepare a formal paper and presentation on their topic. Opportunities abound for students to engage in fieldwork, internships, and in the production of research in our department.

The environmental studies program provides students with a base in liberal arts skills (critical thinking, writing, and speaking) and in analytical skills such as data collection in the field, in the library, and on the computer; the use of global positioning systems; the use of mapping, spreadsheet, and database software. Many of our students have found work that allows them to address important environmental and social issues in the private or public sector. Representative employment areas for our graduates include environmental consulting, pollution remediation, environmental law or public policy, outdoor education, resource management, geographic information systems analysis, nonprofit environmental organizations, and planning.

## Requirements for the Major - Credits: 56-58

The Environmental Studies major has a 40-hour service learning requirement.

### Basic Core - Credits: 15

- GES 150 - The Natural Environment Credits: 3
- GES 302 - Cultural Geography Credits: 3
- GES 315 - Cartography I Credits: 3
- GES 331 - Economic Geography Credits: 3
- GES 489 - Field Studies Credits: 3

### Techniques Core - Credits: 7

- GES 115 - Map Reading and Interpretation Credits: 1
- GES 220 - General Methods of Fieldwork Credits: 3
- GES 325 - Introduction to Geographic Information Science Credits: 3

### Environmental Studies Core - Credits: 15

- GES 135 - Introduction to Environmental Problems Credits: 3
- GES 235 - Conservation Credits: 3
- GES 324 - Environmental Law and Policy Credits: 3
- GES 444 - World Environmental Thought Credits: 3
- PHIL 324 - Environmental Ethics Credits: 3

### Natural Science - Credits: 13 - 15

At least 5 Geography electives must be at the 300 level or higher.

Choose 13-15 credits from the following:

- EGEO 121 - Meteorology Credits: 4
- EGEO 201 - Earth Materials and Processes Credits: 3
- EGEO 340 - Air Pollution Meteorology Credits: 3
- EGEO 341 - Geomorphology Credits: 3
- EGEO 360 - Introduction to Hydrology Credits: 3
- EGEO 469 - Field Investigations in the Geosciences Credits: 1-3
- GES 355 - Earth's Changing Climate Credits: 3
- GES 356 - Earth's Changing Climate Laboratory Credits: 1
- GES 410 - Remote Sensing Credits: 3
- GES 426 - Environmental Modeling Credits: 3

## Social Science Courses - Credits: 6

Choose 6 credits from the following:

- ECON 315 - Economics of Sustainable Development Credits: 3
- ENGL 410 - Literature of the Environment Credits: 3
- GES 215 - Rural and Urban Planning Credits: 3
- GES 244 - Environmental Justice Credits: 3
- GES 345 - Population Analysis Credits: 3
- GES 361 - Gender & the Environment Credits: 3
- GES 375 - Geography of Intolerance Credits: 3
- GES 469 - Field Investigations in the Geosciences Credits: 1-3

## Service Learning

40 Hours of Service Learning are required for program completion.

# Geography (BS)-Track in Applied Geographic Technology

Geography, Geology and the Environment

Students in the Applied Geographic Technology geography program study the links between human beings and their environment as well as the links between one area of the earth's surface with another. This program is designed to prepare students for employment in technical occupations, planning, or postgraduate studies. The applied geographic technology student investigates the geographic study of environmental, economic, cultural, and political processes and becomes proficient in the fast growing field of geographic information technology. This program emphasizes the collection, analysis, and representation of earth data at scales ranging from the local to the global. Opportunities abound for students to engage in fieldwork, internships, and in the production of research in our department. If you enjoy learning about the Earth and its peoples and landscapes, either in your back yard or far away, please consider the opportunities our program provides.

The Applied Geographic Technology program provides students with a base in liberal arts skills (critical thinking, writing, and speaking) and in analytical skills such as data collection in the field, in the library, and on the computer; the use of global positioning systems; and the use of mapping, spreadsheet, and database software. Many of our students have found work that allows them to address important environmental and social issues in the private or public sector. Representative employment areas for our graduates include environmental consulting, pollution remediation,

environmental monitoring, environmental law or public policy, resource management, geographic information systems analysis, nonprofit environmental organizations, and planning.

## Requirements for the Major - Credits: 52-54

### Basic Core - Credits: 15

- GES 150 - The Natural Environment Credits: 3
- GES 302 - Cultural Geography Credits: 3
- GES 315 - Cartography I Credits: 3
- GES 331 - Economic Geography Credits: 3
- GES 489 - Field Studies Credits: 3

### Techniques Core - Credits: 7

- GES 115 - Map Reading and Interpretation Credits: 1
- GES 220 - General Methods of Fieldwork Credits: 3
- GES 325 - Introduction to Geographic Information Science Credits: 3

### Applied Geographic Technology Core - Credits: 15

- CPSC 140 - Introduction to Programming Credits: 3
- GES 410 - Remote Sensing Credits: 3
- GES 415 - Cartography II Credits: 3
- GES 425 - Advanced Geographic Information Systems Credits: 3
- GES 426 - Environmental Modeling Credits: 3

### Geography Electives - Credits: 15-17

Choose 4 Natural Science and 1 Social Science; or 4 Social Science and 1 Natural Science

#### Natural Science

- GES 355 - Earth's Changing Climate Credits: 3
- GES 356 - Earth's Changing Climate Laboratory Credits: 1
- EGEO 121 - Meteorology Credits: 4
- EGEO 341 - Geomorphology Credits: 3
- EGEO 360 - Introduction to Hydrology Credits: 3
- EGEO 469 - Field Investigations in the Geosciences Credits: 1-3

#### Social Science

- GES 215 - Rural and Urban Planning Credits: 3
- GES 244 - Environmental Justice Credits: 3

- GES 303 - Asia Credits: 3
- GES 307 - Australia Credits: 3
- GES 309 - Africa Credits: 3
- GES 324 - Environmental Law and Policy Credits: 3
- GES 345 - Population Analysis Credits: 3
- GES 361 - Gender & the Environment Credits: 3
- GES 375 - Geography of Intolerance Credits: 3
- GES 444 - World Environmental Thought Credits: 3
- GES 469 - Field Investigations in the Geosciences Credits: 1-3

## **Minor in Environmental Science**

Geography, Geology and the Environment

### **Requirements for the Minor**

No more than seven credit hours may count toward both a major and the environmental science minor.

### **Core Courses**

- EGEO 201 - Earth Materials and Processes Credits: 3
- EGEO 202 - Earth History Credits: 3
- EGEO 212 - Earth History Lab Credits: 1
- EGEO 360 - Introduction to Hydrology Credits: 3
- EGEO 451 - Geochemistry Credits: 4

### **Elective Courses: select two courses from the following**

- BIOL 305 - Wetlands and Aquatic Plants / Lab Credits: 3
- BIOL 306 - Freshwater Biomonitoring / Lab Credits: 3
- BIOL 357 - Environmental Microbiology / Lab Credits: 4
- BIOL 401 - Ecology Credits: 3
- CHEM 340 - Air Quality Assessment Credits: 4
- CHEM 370 - Water Quality Assessment Credits: 4
- EGEO 341 - Geomorphology Credits: 3
- EGEO 327 - Structural Geology Credits: 3
- EGEO 340 - Air Pollution Meteorology Credits: 3
- EGEO 460 - Hydrogeology Credits: 3
- GES 315 - Cartography I Credits: 3
- GES 324 - Environmental Law and Policy Credits: 3
- GES 325 - Introduction to Geographic Information Science Credits: 3
- GES 410 - Remote Sensing Credits: 3

## **Minor in Geographic Information Technology**

Geography, Geology and the Environment

## Requirements for the Minor

### Required Courses - Credits: 21

- GES 220 - General Methods of Fieldwork Credits: 3
- GES 315 - Cartography I Credits: 3  
(\* see footnote)
- GES 325 - Introduction to Geographic Information Science Credits: 3  
(\* see footnote)
- GES 410 - Remote Sensing Credits: 3
- GES 415 - Cartography II Credits: 3  
(\* see footnote)
- GES 425 - Advanced Geographic Information Systems Credits: 3  
(\* see footnote)
- GES 450 - Internship Credits: Up to 12

### Footnote

\*Check prerequisite

## Minor in Geography

Geography, Geology and the Environment

## Requirements for the Minor

### Required Courses - Credits: 21

#### Group I: (Select 6 Credits)

- GES 150 - The Natural Environment Credits: 3
- GES 302 - Cultural Geography Credits: 3
- GES 331 - Economic Geography Credits: 3

#### Group II: (Select 3 Credits)

- GES 202 - United States and Canada Credits: 3
- GES 301 - Geography of Rural Areas Credits: 3

#### Group III: (Select 3 Credits)

- GES 220 - General Methods of Fieldwork Credits: 3
- GES 315 - Cartography I Credits: 3

- GES 410 - Remote Sensing Credits: 3

## Electives: - Credits: 9

Any three G&ES courses at the 200 level or above.

## Minor in Geology

The following new program requirements begin Fall 2013.

19 Credits Required

Geography, Geology and the Environment

## Required Courses - Credits: 10

- EGEO 101 - Physical Geology Credits: 3
- EGEO 201 - Earth Materials and Processes Credits: 3
- EGEO 202 - Earth History Credits: 3
- EGEO 212 - Earth History Lab Credits: 1

## Electives - Credits: 9

Electives should be chosen only after consultation with the academic advisor. No more than six semester credits may count toward both a major and the geology minor.

Choose at least 3 credits of EGEO courses at the 200 level or higher.

Choose at least 6 credits of EGEO courses at the 300 level or higher.

## Minor in Meteorology

Geography, Geology and the Environment

## Requirements for the Minor - Credits: 23-24

No more than nine semester credits may count toward both a major and the meteorology minor.

## Required Courses - 17 credits

- EGEO 121 - Meteorology Credits: 4
- EGEO 340 - Air Pollution Meteorology Credits: 3
- GES 355 - Earth's Changing Climate Credits: 3
- GES 356 - Earth's Changing Climate Laboratory Credits: 1
- CPSC 140 - Introduction to Programming Credits: 3

- MATH 230 - Calculus II Credits: 4

## Elective Courses - Credits: 6 - 7

- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- CHEM 340 - Air Quality Assessment Credits: 4
- EGEO 360 - Introduction to Hydrology Credits: 3
- PHYS 385 - Computational Physics Credits: 3
- ENVS 490 - Independent Study Credits:

# Teacher Certification in Earth and Space Science

## Requirements for the Certification

Teacher certification is earned through the master of education degree at Slippery Rock University. Students seeking secondary school teaching certification in earth and space science must earn a bachelor of arts or a bachelor of science degree in discipline and contact the Department of Secondary Education/Foundations of Education concerning its graduate program in education. Information about this program, including prerequisites for admission, may be obtained from the Secondary Education/Foundations of Education office in 114 McKay Education Building.

## Mathematics

200 Vincent Science Center  
724-738-2061

Mathematics

The mission of the Mathematics Department at Slippery Rock University is focused on three areas:

1. To provide high quality programs to mathematics majors who plan to teach secondary mathematics, work in business or industry, or attend graduate school; to provide appropriate service courses for other programs; and to provide an exciting and relevant liberal studies experience for Slippery Rock students.
2. To expand the boundaries of mathematical knowledge and encourage and enable students to participate in scholarly research.
3. To provide service to the Slippery Rock University and wider communities.

### Chair

Gary Grabner

### Secretary

Debra Dickey

### Faculty

Rachelle Bouchat, Robert Buck, Michael Detlefsen, Jeffrey Forrest, Elise Grabner, Gary Grabner, Mohammad Ismail, William Lindgren, Richard Marchand, J. Lyn Miller, Gary Roberts, Andrzej Szymanski, Robert Vallin

*"The mathematics department (faculty) was instrumental in providing a learning atmosphere conducive to my development as a student and an individual. They accomplished this by being professionals and friends, as well as*



*professors. In addition to learning the technical concepts as a mathematics major at SRU, the most valuable tool that I've developed is being able to make decisions analytically with confidence, in my profession and in life."*

**Andrew Wozniak, '98**

Students who have the desire and the ability to major in mathematics will find a course of study that will meet their personal needs. Graduates are prepared for various career opportunities including jobs in actuarial science, finance, business, insurance, government, statistics, industry, or education. Many students go on to do graduate work in various disciplines, including mathematics and professional schools.

SRU mathematics majors are employed in such diverse occupations as operations research analyst, consulting actuary, university professor, engineer, statistician, information analyst, auditor, international account executive, senior computer analyst, senior commercial loan officer, manager of performance monitoring, and teaching in both the private and public sectors.

Mathematics majors at Slippery Rock have the opportunity to participate in the Math Club and to join Kappa Mu Epsilon, a national mathematics honorary. Majors participate in senior research projects directed by faculty members. Math majors have attended and given presentations on their projects at national meetings of the Mathematical Association of America; meetings of the Allegheny Mountain Section of the Mathematical Association of America; the annual Mathematics and Statistics Student conference at Miami University of Ohio; the annual Pi Mu Epsilon meeting at Youngstown State University, and the annual State System of Higher Education Mathematical Association meeting. There are two or three students doing informal, paid internships in actuarial science and/or statistics each summer.

The Mathematics Department offers minors in Mathematics, Statistics, Actuarial Studies, Elementary School Mathematics, and Middle School Mathematics. Certificates\* are available in Elementary School Mathematics and Middle School Mathematics. The department also offers a Certificate in Statistical Applications.

\* This is not related to Pennsylvania State Certification.

## **B.A. in Mathematics**

Mathematics Department

Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that mathematicians must have.

### **Major Requirements - Credits: 40**

#### **Required Courses - Credits: 10**

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

#### **Required Mathematics Courses - Credits: 19**

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Independent Study Thesis - Credits: 3

- MATH 490 - Independent Study Credits: 1 to 3

### Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 309, 310, 313, 314 or 491.

### Computer Competency

For students entering the university Fall 2008 and after, students must demonstrate computer competency through either passing the computer competency exam or successfully completing one of the following courses.

- CPSC 100 - Introduction to Computing for Liberal Arts Credits: 1
- CPSC 110 - Computer Concepts Credits: 3
- CPSC 130 - Introduction to Programming and Information Systems Credits: 3
- CPSC 210 - Productivity Software Credits: 3
- PE 202 - Technology for Physical Education Teacher Education Credits: 3

### Natural Science and Math College-Wide Requirements - Credits: 12

B.A. in Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 125 - Precalculus Credits: 4
- OR**
- MATH 225 - Calculus I Credits: 4
- PHYS 201 - Elements of Physics I/ Lab Credits: 4
- OR**
- PHYS 211 - General Physics I/ Lab Credits: 4

### **B.S. in Mathematics - Actuarial Science Track**

## Mathematics Department

An actuary is a professional trained in mathematics, statistics, and economic techniques who assigns a dollar value to future risk. They use their knowledge to solve problems involving the long-range financial impact of future events. This skill is of great value to insurance companies, investment firms, employee benefits, consulting firms, state or federal agencies, labor unions, and other organizations that need to quantify financial risks.

Actuaries achieve professional status by passing a series of qualifying examinations administered by the Society of Actuaries (SOA) and/or the Casualty Actuarial Society (CAS). Students are generally expected to have passed one or two of the exams while in college, but most are taken after employment. The SRU Actuarial Science Special Interest Area prepares students to take the first two actuarial exams, Exam P and Exam FM. SOA members have traditionally practiced in life and health insurance, pension planning, and employee benefits. In recent years, some have moved into finance and investment markets. CAS members work in property and casualty insurance.

In the six editions of the *Jobs Rated Almanac* published since 1986, the actuary has ranked first twice and ranked second four times. The book rates 250 jobs on the basis of such categories as salary, benefits, outlook for the future, stress, work environment, and job security. Entry-level salaries with one exam fall between \$45,000 and \$65,000 with signing bonuses being common. Actuaries with 15 years of experience often earn more than \$250,000.

Slippery Rock students have been successful on passing the actuarial exams, getting summer internships, and finding actuarial jobs.

## Major Requirements - Credits: 52

### Required Courses - Credits: 10

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

## Required Electives - Credits: 6

- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

## Actuarial Science Special Interest Area - Credits: 9

- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- MATH 280 - Theory of Interest Credits: 3

## Actuarial Science Special Interest Area - Credits: 6

Choose two courses from the following. At least one course must be at 300/400 level.

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3
- ECON 302 - Microeconomic Analysis Credits: 3
- ECON 312 - Critical Choices in Health Care Policy Credits: 3
- ECON 318 - Intermediate Statistical Analysis Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- FIN 321 - Investments Credits: 3
- FIN 323 - Financial Markets and Institutions Credits: 3
- FIN 326 - Intermediate Corporate Finance Credits: 3
- FIN 329 - Principles of Insurance Credits: 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Biology Track**

Mathematics Department

The internal functions and external interaction of living organisms are often repeatable and predictable. Mathematical modeling of these events is of considerable interest to subdisciplines in biology like cellular/molecular biology and environmental biology. Research groups in these areas may include people having both advanced training in

mathematics and a general understanding of biology. This type of expertise is sometimes referred to as computational biology, and career opportunities exist in the academic, governmental, and industrial sectors. Work at the cellular/molecular level includes such valuable endeavors as the development of new drugs to treat disease; whereas, studies in environmental biology might require mathematical modeling of fluctuations in natural populations accompanying climate change. Students majoring in mathematics with a special interest area in biology thus are well studied to undertake this dynamic field of work

Students interested in a cellular/molecular biology emphasis should consider choosing BIOL 250, BIOL 335, and BIOL 370. Those interested in environmental biology should consider choosing BIOL 201, BIOL 212, BIOL 401, and at least one of BIOL 305, BIOL 306, BIOL 357, BIOL 360, BIOL 371, BIOL 405.

Note that with one additional upper level course, a student can earn a minor in biology.

## Major Requirements - Credits: 58

### Required Courses - Credits: 10

Students must have a “C” or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Required Electives - Credits: 6

Choose two courses from the following.

- MATH 315 - Numerical Mathematics Credits: 3
- MATH 335 - Mathematical Modeling Credits: 3

- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

## Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

## Biology Special Interest Area - Credits: 12

BIOL 104 is required. Choose two additional courses from the following.

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 201 - General Botany Credits: 4
- BIOL 212 - General Zoology/Lab Credits: 4
- BIOL 250 - Genetics Credits: 4

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Chemistry Track**

Mathematics Department

Students majoring in mathematics with an interest in chemistry or secondary education should consider this special interest area. Chemistry is the study of nanoworld, the world of atoms and molecules spanning dimensions from one to several thousand angstroms ( $1 \times 10^{-9}$  meters). Chemistry is sometimes referred to as the “central” science due to the size range of physical systems investigated (they are intermediate in size to sub-atomic particles studied by physicists and the larger systems studied by biologists and geologists).

Chemists study the architecture of this miniature universe, explore the changes that occur, unravel the principles that govern these chemical changes, and devise ways to create entirely new compounds and materials. Past triumphs of chemistry include the synthesis of pharmaceuticals and agricultural products, while future challenges include chemical memory, solar cells, superconductors, and the solution of numerous important problems relating to health and the environment.

The usual stereotype of a chemist as someone who works in a laboratory surrounded by flasks of bubbling liquids giving off less than pleasant odors does not describe the experience of most chemists though some do work in

laboratories surrounded by traditional glassware and equipment with fume hoods for stinky chemicals. Others, however, work in laboratories equipped with sophisticated computer-controlled measuring instruments. For others, the “lab” is a smokestack, a river, or a process-line in a chemical plant.

From the perspective of employers, chemists are valued as much for their critical thinking and problem-solving skills as they are for their knowledge of chemistry.

Federal government statistics reveal that about 70% of the U.S. economy has some connection to chemistry. Students choosing to study mathematics with a special interest in chemistry will obtain an excellent preparation for these opportunities.

## Major Requirements - Credits: 50

### Required Courses - Credits: 10

Students must have a “C” or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Required Electives - Credits: 6

MATH 301 is required. Choose at least one additional course from MATH 302 and MATH 315.

- MATH 301 - Differential Equations I Credits: 3
- MATH 302 - Differential Equations II Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3

### Required Chemistry Courses - Credits: 6

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1

## Chemistry Special Interest Area - Credits: 7

Choose at least 7 credits (including one lab) from the following. At least 3 credits must be taken at the 300/400 level.

- CHEM 200 - Fundamentals of Organic Chemistry Credits: 3
- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 301 - Physical Chemistry I Credits: 3
- CHEM 321 - Physical Chemistry Laboratory I Credits: 1
- CHEM 350 - Analytical Chemistry Credits: 3
- CHEM 351 - Analytical Chemistry Lab Credits: 1

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## B.S. in Mathematics - Computer Science Track

Mathematics Department

The digital computer is a brainchild of mathematicians/scientists. Although the computer was invented just as a tool to do mathematical, scientific, and engineering computations, its applications now crisscross every walk of life and have invaded every field of study in one way or another. Behind every computer application is an algorithm. Computer science is a mathematical discipline that has to do with the study of algorithms and hence forms the theoretical basis for computer applications. Adequate background in computing opens up an enormous number of challenging and satisfying career opportunities for a mathematician. Depending on interests other than mathematics, one can choose from a variety of programming or non-programming/administrative jobs with an option of following management tracks or staying with research and development. Besides being an object of mathematical study, the computer has also proved to be a powerful tool in mathematical research. Hence computing background is undoubtedly an asset to students aspiring to earn a graduate degree in mathematics leading to careers in the industry and the academics.



## Major Requirements - Credits: 59

### Required Courses - Credits: 10

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Required Mathematics Electives - Credits: 6

Choose two courses from the following

- MATH 301 - Differential Equations I Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3
- MATH 335 - Mathematical Modeling Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3

### Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

### Computer Science Special Interest Area - Credits: 4

- CPSC 246 - Advanced Programming Principles Credits: 4

### Computer Science Special Interest Area Courses - Credits: 12

Choose four Computer Science courses from the following.

- CPSC 323 - Data Base Systems Credits: 3
- CPSC 358 - Simulation Credits: 3
- CPSC 374 - Algorithms and Data Structures Credits: 3
- CPSC 376 - Programming Languages Credits: 3
- CPSC 378 - Theory of Computation Credits: 3
- CPSC 456 - Introduction to Computer Graphics Credits: 3
- CPSC 476 - Artificial Intelligence Credits: 3
- CPSC 478 - Analysis of Algorithms Credits: 3
- CPSC 498 - Selected Topics Credits: 1 to 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Economics Track**

Mathematics Department

Training in economics is an excellent counterpart to mathematics study. While advanced economic study requires a great deal of training in mathematics, economics as discipline provides an application of that training in education, public policy, business and social issues. There is a significant demand for college students with a general training in economics. The importance of economics is recognized in business and government as well as in the field of university and college teaching. Economics students may be employed after graduation by banks and other financial institutions, insurance companies, government agencies or by manufacturing companies. Economics is excellent preparation for graduate study in law, advanced economics, business administration (MBA), and public administration. The completion of this concentration in economics also fulfills the requirements of a formal minor in economics.

Economics students are encouraged to join Omicron Delta Epsilon, an international honor society in economics. They are also encouraged to join the Economics, Finance, and International Business Club. Both sponsor a variety of professional and social activities to allow students to enhance their out-of classroom experience, develop a sense of profession common bond and group support among themselves, and create a network with off-campus professionals. Internship opportunities abound and are encouraged of economics students.

## Major Requirements - Credits: 58

## Required Courses - Credits: 10

Students must have a “C” or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

## Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

## Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

## Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

## Required Electives - Credits: 6

Choose two courses from the following.

- MATH 301 - Differential Equations I Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3
- MATH 335 - Mathematical Modeling Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

## Economics Special Interest Area Required Courses - Credits: 9

- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 301 - Macroeconomic Analysis Credits: 3
- **OR**
- ECON 302 - Microeconomic Analysis Credits: 3

## Economics Special Interest Area - Credits: 6

Choose two of the following courses.

- ECON 315 - Economics of Sustainable Development Credits: 3
- ECON 318 - Intermediate Statistical Analysis Credits: 3
- ECON 326 - International Economics Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3
- MATH 280 - Theory of Interest Credits: 3
- MGMT 320 - Operations Management I Credits: 3
- MGMT 352 - Operations Management II Credits: 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Environmental Geoscience Track**

Mathematics Department

Our understanding of Earth properties and processes rests on a solid foundation of mathematical principles: for example, determination of geological ages based on the exponential decay of radioactive isotopes and characterization of groundwater flow through a porous medium using Darcy's Law. Today, most of the cutting-edge advances in the geosciences involve sophisticated quantitative techniques. Seismic inversion and deconvolution (signal analysis and processing) are used to unravel Earth's internal structure and identify petroleum reservoirs, while global circulation models (coupled partial differential equations) are used to understand the evolution of Earth's climate system.

There is a strong need in the earth and environmental sciences for people with the ability to apply mathematical concepts and tools to critical problems related to resource exploration and development, fundamental Earth processes and properties, and environmental monitoring and restoration. Students who complete a degree in mathematics with a special interest area in environmental geosciences will be well prepared for careers or graduate level work in areas such as geophysics, geotechnical engineering, hydrology, and environmental modeling. In order to take full advantage of this special interest area, students are encouraged to work closely with an EGEO faculty member to select courses that are most relevant to their career goals.

## Major Requirements - Credits: 58

### Required Courses - Credits: 10

Students must have a “C” or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

### Required Electives - Credits: 6

Choose two courses from the following

- MATH 301 - Differential Equations I Credits: 3
- MATH 302 - Differential Equations II Credits: 3
- MATH 335 - Mathematical Modeling Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

### Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

### Environmental Geoscience Special Interest Area Required Courses - Credits: 6

- EGEO 201 - Earth Materials and Processes Credits: 3
- EGEO 203 - Quantitative Methods Credits: 3

### Environmental Science Special Interest Area - Credits: 3

Choose one of the following.

- EGEO 100 - Environmental Geology Credits: 3
- EGEO 101 - Physical Geology Credits: 3
- EGEO 121 - Meteorology Credits: 4

## Environmental Geoscience Special Interest Area Electives - Credits: 6

Choose two additional Environmental Geoscience courses. At least one must be at the 300/400 level.

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Finance Track**

Mathematics Department

There is a significant demand for college graduates with a combination of a finance background and strong quantitative skills. Some of the most successful managers of financial institutions such as mutual funds are among those who have double majors in business administration (finance) and mathematics. The combination of finance and mathematics makes it possible to get employment with insurance companies, mutual funds, stock brokerage houses, etc. and progress toward rewarding professions such as portfolio management, professional money management, securities analysis, actuarial science, and personal financial planning. The completion of this concentration in finance may also enhance the opportunity for mathematics majors to pursue an M.B.A. degree with a concentration in quantitative financial analysis.

## Major Requirements - Credits: 58

### Required Courses - Credits: 10

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3

- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

## Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

## Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

## Finance Special Interest Area Required Courses - Credits: 9

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3
- FIN 320 - Managerial Finance Credits: 3

## Finance Special Interest Area - Credits: 6

Choose two of the following courses.

- FIN 321 - Investments Credits: 3
- FIN 323 - Financial Markets and Institutions Credits: 3
- FIN 326 - Intermediate Corporate Finance Credits: 3
- FIN 329 - Principles of Insurance Credits: 3
- FIN 420 - Finance Seminar Credits: 3
- FIN 421 - Portfolio Theory Credits: 3
- FIN 427 - International Financial Management Credits: 3
- MATH 280 - Theory of Interest Credits: 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

# **B.S. in Mathematics - Graduate School Track**

Mathematics Department

The mathematics graduate school special interest area is for those B.S. majors in mathematics who are going to pursue graduate studies in mathematics. While special interest areas in general help students streamline and focus their electives in a certain field of study, this special interest area helps students broaden their knowledge within different areas of mathematics and related fields such as computer science, physics and philosophy. This should help students prepare for graduate studies in mathematics.

Talented students with an interest in mathematics should consider graduate studies leading to an M.S. or a Ph.D. in mathematics. There are many job opportunities available to students with higher degrees in mathematics both in industry and in academics. Most students can generally finance graduate studies by means of teaching assistantships and other fellowships, which are available from most universities offering graduate programs in mathematics. These normally cover a student's tuition and include a stipend for living expenses.

## **Major Requirements - Credits: 58**

### **Required Courses - Credits: 10**

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### **Required Mathematics Courses - Credits: 19**

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### **Required Mathematics Seminar Course - Credits: 2**

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### **Graduate School Special Interest Area - Credits: 6**



MATH 326 is required. Choose one additional course from the following.

- MATH 326 - Abstract Algebra II Credits: 3
- MATH 320 - Theory of Numbers Credits: 3
- MATH 403 - Elementary Topology Credits: 3
- MATH 406 - Intermediate Analysis Credits: 3
- MATH 407 - Complex Variables Credits: 3

## Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

## Mathematics Graduate School Special Interest Area - Credits: 9

A 3-credit Independent Study Thesis (MATH 490) is required. Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

- MATH 490 - Independent Study Credits: 1 to 3

## Mathematics Graduate School Special Interest Area - Credits: 6

Choose two of the following courses.

- CPSC 374 - Algorithms and Data Structures Credits: 3
  - CPSC 378 - Theory of Computation Credits: 3
  - PHIL 313 - Symbolic Logic Credits: 3
  - PHIL 351 - Philosophy of Natural Science Credits: 3
  - MATH 331 - Mathematical Methods of Physics Credits: 3
- OR**
- PHYS 331 - Mathematical Methods of Physics Credits: 3
  - PHYS 385 - Computational Physics Credits: 3

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Philosophy Track**

Mathematics Department

Ever since Plato affixed a sign at the entrance of his academy that read “Let No One Ignorant of Geometry Enter”, the fields of philosophy and mathematics have enjoyed a special and complex relationship.

Mathematics students who select the philosophy track will become members of a distinguished family stretching back 2,500 years and across the entire globe, just as they will prepare themselves for a future in which skills requiring both logical argument and disciplined imagination are sought after in the marketplace.

Students, who also seek the inner rewards of a nourished, challenged, and well-developed mind, are likely to find this track well suited to them.

The student who chooses this special interest area will also complete the requirements for a minor in philosophy, which will appear on the official transcript, after the minor declaration form has been completed.

It is strongly recommended that the student consult with his or her professors to select the two electives, so that the courses maximize the student’s intellectual development as they meet his/her aims and needs.

## Major Requirements - Credits: 58

### Required Courses - Credits: 10

Students must have a “C” or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 25

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 304 - Geometric Structures Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 320 - Theory of Numbers Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

## Philosophy Special Interest Area Required Courses - Credits: 9

- PHIL 113 - Introduction to Logic Credits: 3
- PHIL 313 - Symbolic Logic Credits: 3
- PHIL 351 - Philosophy of Natural Science Credits: 3

## Philosophy Special Interest Area - Credits: 6

Choose two of the following courses.

- PHIL 170 - American Philosophy Credits: 3
- PHIL 324 - Environmental Ethics Credits: 3
- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PHIL 326 - Business Ethics Credits: 3
- PHIL 343 - Asian Philosophy Credits: 3
- PHIL 371 - History of Western Philosophy I Credits: 3
- PHIL 372 - History of Western Philosophy II Credits: 3
- PHIL 373 - Modern Authors and Issues Credits: 3
- PHIL 375 - Existentialism and Phenomenology Credits: 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Physics Track**

Mathematics Department

Students majoring in mathematics with an interest in physics or secondary education should consider this special interest area. Physics is a mathematical science, which attempts to understand the physical universe. It addresses fundamental questions about the nature of matter and energy and the forces by which objects interact. Beginning with these basic principles and simple models, physicists build descriptions of atoms, organic material, stars and the origin of the universe. Physics also has an applied side: scientists and engineers use their understanding of physical principles to solve practical problems in such areas as product development, process control, and instrumentation. The study of physics helps students to create an understanding of their world using scientific thinking as a tool.

Today's world is a complex one characterized by constantly changing technologies. Physics graduates are well prepared to enter this world because they have begun to understand the laws that govern the way things work and the physical principles behind the laws. Products and technology change, but physical principles do not. Note that taking one additional course will allow the student to earn a minor in physics.

## Major Requirements - Credits: 57

### Required Courses - Credits: 10

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Mathematics Electives - Credits: 6

Choose at least 2 courses from the following.

- MATH 301 - Differential Equations I Credits: 3
- MATH 302 - Differential Equations II Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3
- MATH 335 - Mathematical Modeling Credits: 3
- MATH 407 - Complex Variables Credits: 3

### Mathematics Required Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310. MATH 331 / PHYS 331 may be used as a Math course or a Physics course, but not both.

## Physics Special Interest Area Required Courses - Credits: 11

- PHYS 211 - General Physics I/ Lab Credits: 4
- PHYS 212 - General Physics II/ Lab Credits: 3
- PHYS 213 - General Physics III/ Lab Credits: 4

## Physics Special Interest Area - Credits: 3

Choose one of the following.

- PHYS 314 - Engineering Mechanics I: Statics Credits: 3
  - PHYS 315 - Engineering Mechanics II: Dynamics Credits: 3
  - PHYS 325 - Analog & Digital Electronics Credits: 3
  - MATH 331 - Mathematical Methods of Physics Credits: 3
- OR**
- PHYS 331 - Mathematical Methods of Physics Credits: 3
  - PHYS 371 - Physical Optics Credits: 3
  - PHYS 375 - Thermal Physics Credits: 3
  - PHYS 381 - Advanced Physics Laboratory Credits: 2
  - PHYS 382 - Optics Laboratory Credits: 2
  - PHYS 385 - Computational Physics Credits: 3
  - PHYS 411 - Modern Physics Credits: 4

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Pre-Masters in Education**

Mathematics Department

Students majoring in mathematics with an interest in teaching secondary school mathematics should consider this special interest area. In addition to introducing students to the area of education, courses in this area will better prepare students who are planning on applying to SRU's College of Education's master degree program. With an increasing emphasis on the special needs of students in the mathematics classroom, students should seriously consider taking SPED 100 from the additional hours block.

Students who have an interest in one of the science areas, especially physics, should consider selecting that option for their special interest area. School administrators generally look very favorably on individuals who are certified in more than one subject area. The special interest area in one of the sciences will serve as the foundation for certification in that area. Additional undergraduate courses in that science area required for certification can be completed while pursuing the M.Ed. degree in secondary education. For more information concerning certification in the secondary science areas, contact the Department of Secondary Education.

## Major Requirements - Credits: 61

### Required Courses - Credits: 10

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Required Mathematics Courses for Education Track - Credits: 6

MATH 304 is required. Choose one additional course from the following.

- MATH 304 - Geometric Structures Credits: 3
- MATH 320 - Theory of Numbers Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3

### Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 304, 310 or 320.

## Education Special Interest Area - Credits: 6

- SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom Credits: 3
- SPED 121 - High Incidence Disabilities Credits: 3

## Education Special Interest Area Electives - Credits: 12

Choose 4 courses from the following. At least 2 courses must be at the 300/400 level.

- CDEV 248 - Human Development and Education Credits: 3
- PHIL 313 - Symbolic Logic Credits: 3
- PHIL 351 - Philosophy of Natural Science Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3
- SEFE 230 - Production and Utilization of Instructional Technology Credits: 3
- SEFE 245 - Middle Level Learning Theory Credits: 3
- SEFE 250 - Pre, Early, & Adolescent Development Credits: 3
- SEFE 280 - Cultural Minorities in Education Credits: 3
- SEFE 300 - Middle Level Cognitive Development Credits: 3
- SEFE 311 - Teaching of Mathematics in the Middle School Credits: 3
- SEFE 325 - Teaching in the Middle Level Grades Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 380 - History and Philosophy of Education Credits: 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Pre-Masters of Business Administration Track**

Mathematics Department

Training in business is an excellent counterpart to mathematics study. A student completing this concentration with a major in mathematics would be well qualified to enter an M.B.A. program or to work in the area of business. Business training is excellent preparation for graduate studies in business, law, and related field. Slippery Rock University students trained in business have a proven record of success in graduate programs. Employment opportunities also abound in the areas of banking and other financial institutions, investment groups, insurance, information technologies, retailing, health care, government agencies, and manufacturing.

There are many dynamic and exciting opportunities for business students to get involved with student organizations that allow them to enhance their out-of-classroom experience, develop a sense of profession common bond and group support among themselves, and create a network with off-campus professionals. Internship opportunities abound in all areas of business and are encouraged of business students.

## Major Requirements - Credits: 58

### Required Courses - Credits: 10

Students must have a “C” or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Required Mathematics Electives - Credits: 6

MATH 352 is required. Choose at least one additional course from the following.

- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 301 - Differential Equations I Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

### Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310



## Pre-Masters of Business Administration Interest Area - Credits: 6

- ACCT 209 - Financial Accounting Credits: 3
- ACCT 210 - Managerial Accounting Credits: 3

## Pre-Masters of Business Administration Special Interest Area Electives - Credits: 9

Choose 3 courses from the following. At least one course must be taken at the 300/400 level.

- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 318 - Intermediate Statistical Analysis Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- MGMT 351 - Organizational Behavior Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3
- MATH 280 - Theory of Interest Credits: 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Psychology Track**

Mathematics Department

Psychology, the science of behavior, has traditionally emphasized empirical research as a primary means to generate knowledge. This reliance on quantitative methods yields considerable opportunity for interdisciplinary work in mathematics. The field has always placed great value on statistical training and has recently infused mathematical modeling as a primary research tool. Graduate opportunities exist in quantitative, experimental industrial, organizational, educational, and computational psychology.

Vocational opportunities center on research programs and may include technical positions at the B.S. level. Larger psychological research programs, both academic and private (such as pharmaceutical or industrial) frequently have a statistician on staff. Psychological and intellectual testing firms provide additional career opportunities. Training in mathematics and experimental psychology would appear to prepare analysts for a variety of positions in these public

and private research efforts. Educational preparation for many of these areas would be enhanced by academic preparation in experimental design, psychological testing or cognitive psychology.

## Major Requirements - Credits: 59

### Required Courses - Credits: 10

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Mathematics Electives - Credits: 6

MATH 352 is required. Choose one additional course from the following.

- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 301 - Differential Equations I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

### Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

### Psychology Special Interest Area Courses - Credits: 10

- PSYC 105 - Introduction to Psychology Credits: 3
- PSYC 221 - Introduction to Behavioral Statistics Credits: 3

- PSYC 325 - Introduction to Experimental Psychology Credits: 3
- PSYC 326 - Experimental Psychology Laboratory Credits: 1

## Psychology Special Interest Area Electives - Credits: 6

Choose two of the following courses.

- MATH 252 - Introduction to Statistical Modeling Credits: 3
- PSYC 306 - Introduction to Psychological Testing Credits: 3
- PSYC 310 - Introduction to Industrial-Organizational Psychology Credits: 3
- PSYC 338 - Cognitive Psychology Credits: 3
- PSYC 421 - Advanced Behavioral Statistics Credits: 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Public Health Track**

Mathematics Department

Tracking the progress made in the field of public health relies heavily on keeping good statistics and analyzing trends in health data over the years. This reliance on quantitative methods provides an opportunity for interdisciplinary work in mathematics. Experts in statistical methods play an important role in epidemiology and program evaluation. The discipline of biostatistics is defined as the application of mathematical statistics and techniques to research information and data collected relating to medicine, biomedical science, health and social problems, using inferential statistics as a basis for analysis of the data which includes a statement about values, the results, and analysis.

Vocational opportunities in the field of biostatistics typically require graduate training. However entry level positions as a research assistant might be possible for someone trained in mathematics with a concentration in public health. The government typically employs biostatisticians especially for government programs that track health by research institutions conducting research in public health and private health organizations.

## Major Requirements - Credits: 58

### Required Courses - Credits: 10

Students must have a “C” or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Required Mathematics Statistics Courses - Credits: 6

- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

### Mathematics Electives - Credits: 6

Choose two additional Mathematics courses at the 300/400 level. Not MATH 310.

### Public Health Special Interest Area Required Courses - Credits: 9

- HLTH 210 - Introduction to Public Health Credits: 3
- HLTH 312 - Data Management for Health Science Credits: 3
- HLTH 313 - Biostatistics Credits: 3

### Public Health Special Interest Area - Credits: 6

Choose two of the following courses.

- HLTH 309 - Introduction to the Study of Disease Credits: 3
- HLTH 311 - International Health Credits: 3
- HLTH 406 - Program Planning and Evaluation Credits: 3
- HLTH 410 - Epidemiology Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3

## Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

## Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **B.S. in Mathematics - Statistics Track**

Mathematics Department

Statisticians generally have a strong background in mathematics and in the use of computers. Statistics uses mathematics, but it is not abstract or isolated. Statisticians work with people from other professional backgrounds to solve practical problems. Statistics uses modern computing to organize and analyze data, but the emphasis is on the data to be understood and the problem to be solved.

More and more professions depend on data and numerical reasoning. With this growth in the use of data comes a growing need for the services of statisticians. The demand for statisticians is currently high and is growing. According to the U.S. Bureau of Labor Statistics, the number of non-academic jobs for statisticians is expected to increase by 25%. Salaries and opportunities for advancement are competitive and reflect the strong demand.

The search for improved medical treatments rests on careful experiments that compare promising new treatments with the current state of the art. Statisticians work with medical teams to design the experiments to analyze the complex data they produce. Studies of the environment require data on the abundance and location of changes in human activities. The data are often incomplete or uncertain, but statisticians can help uncover their meaning. How many people are unemployed this month? What do we export? What do we import? Are rates of crime increasing or decreasing? Government wants data on issues like these to guide policy, and government statistical agencies provide them. Other fields where statisticians are making important contributions include: biology, sports, engineering, psychology, public health, economics, insurance, genetics, finance, agriculture, census, sociology, astronomy, telecommunications, epidemiology, ecology, and many others.

## Major Requirements - Credits: 52

### Required Courses - Credits: 10

Students must have a "C" or better in the following three courses to register for any 300 level or above Mathematics course.

- MATH 131 - Discrete Mathematics Credits: 3

- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3

### Required Mathematics Courses - Credits: 19

- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

### Required Mathematics Seminar Course - Credits: 2

MATH 491 must be completed 2 times.

- MATH 491 - Mathematics Seminar Credits: 1

### Required Mathematics Statistics Courses - Credits: 6

- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

### Required Mathematics Courses - Credits: 9

- MATH 152 - Elementary Statistics I Credits: 3
- MATH 153 - Elementary Statistics II Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3

### Statistics Special Interest Area - Credits: 6

Choose two of the following courses.

- BIOL 325 - Biometry / Lab Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 358 - Simulation Credits: 3
- ECON 318 - Intermediate Statistical Analysis Credits: 3
- HLTH 312 - Data Management for Health Science Credits: 3
- HLTH 313 - Biostatistics Credits: 3
- PSYC 421 - Advanced Behavioral Statistics Credits: 3

### Competency in an Approved Computer Programming Language

Competency in an approved computer programming language is required.

### Natural Science and Math College-Wide Requirements - Credits: 12

Mathematics students in the College of Health, Environment and Science must complete the following four courses.

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## **Certificate in Elementary School Mathematics**

Mathematics Department

For certified teachers who have completed the equivalent of MATH 210 - Elementary Mathematics I, MATH 310 - Elementary Mathematics II, and ELEC 342 - Methods and Materials in Teaching Elementary Mathematics.

At least six post-baccalaureate credits of the mathematics courses required for the Certificate in Elementary School Mathematics must be taken at Slippery Rock University.

**Note: This program is not related to Pennsylvania State Certification.**

### **Requirements for the Certificate in Elementary School Mathematics**

- MATH 118 - Elementary Geometry Credits: 3

**And at Least Four Additional Courses From:**

- MATH 113 - Mathematics as a Liberal Art Credits: 3
- MATH 122 - Matrices and Linear Programming Credits: 3
- MATH 125 - Precalculus Credits: 4
- MATH 131 - Discrete Mathematics Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- MATH 153 - Elementary Statistics II Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3

**Admission Restricted to Certified Teachers Who Have Completed the Equivalent Of:**

- ELEC 342 - The Teaching of Elementary Mathematics Credits: 3
- MATH 210 - Elementary Mathematics I Credits: 3
- MATH 310 - Elementary Mathematics II Credits: 3

## **Certificate in Middle School Mathematics**

Mathematics Department

To earn a Certificate in Middle School Mathematics, at least six post-baccalaureate credits of mathematics courses required for the Certificate in Middle School Mathematics must be taken at Slippery Rock University.

**This certificate is not related to Pennsylvania State Certification.**

## Requirements for the Certificate in Middle School Mathematics

For certified teachers who have completed the equivalent of MATH 210 - Elementary Mathematics I, MATH 310 - Elementary Mathematics II, and SEFE 311 - Teaching of Mathematics in Middle School.

- MATH 118 - Elementary Geometry Credits: 3  
or MATH 304 - Geometric Structures
- MATH 225 - Calculus I Credits: 4

And at least three additional courses from Group A and B. At least one course must be from Group A.

### Group A:

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 153 - Elementary Statistics II Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3
- MATH 311 - Introduction to Operations Research Credits: 3
- MATH 320 - Theory of Numbers Credits: 3

### Group B:

- MATH 113 - Mathematics as a Liberal Art Credits: 3
- MATH 122 - Matrices and Linear Programming Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3

Admission Restricted to Certified Teachers Who Have Completed the Equivalent of:

- MATH 210 - Elementary Mathematics I Credits: 3
- MATH 310 - Elementary Mathematics II Credits: 3
- SEFE 311 - Teaching of Mathematics in the Middle School Credits: 3

## Certificate in Statistical Applications

Mathematics Department

This certificate is intended for those who require a broad knowledge of statistics, but do not necessarily need a calculus-based statistical background. Some of these courses have prerequisites that must be met. At least six credit hours of the mathematics courses used for the Certificate in Statistical Applications must be taken at Slippery Rock University.



## Requirements for the Certificate

- MATH 152 - Elementary Statistics I Credits: 3
- MATH 153 - Elementary Statistics II Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3

### Three Additional Courses:

At least one course must be from computer science.

- BIOL 325 - Biometry / Lab Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 358 - Simulation Credits: 3
- ECON 318 - Intermediate Statistical Analysis Credits: 3
- HLTH 312 - Data Management for Health Science Credits: 3
- HLTH 313 - Biostatistics Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3
- PSYC 421 - Advanced Behavioral Statistics Credits: 3

## Minor Actuarial Studies

Mathematics Department

To earn a minor in Actuarial Studies, at least 9 credit hours of mathematics courses used for a minor must be taken at Slippery Rock University. Students must also complete requirements for Society of Actuaries VEE credit in at least two areas.

### Required Courses - Credits: 9

- MATH 280 - Theory of Interest Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

### Electives

ACCT 209, ACCT 210, ECON 201, and ECON 202 may not be used by students from the School of Business

MATH 231 may not be used by Mathematics majors.

- ACCT 209 - Financial Accounting Credits: 3

- ACCT 210 - Managerial Accounting Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 358 - Simulation Credits: 3
- ECON 201 - Principles of Macroeconomics Credits: 3
- ECON 202 - Principles of Microeconomics Credits: 3
- ECON 301 - Macroeconomic Analysis Credits: 3
- ECON 302 - Microeconomic Analysis Credits: 3
- ECON 312 - Critical Choices in Health Care Policy Credits: 3
- ECON 318 - Intermediate Statistical Analysis Credits: 3
- ENGL 205 - Introduction to Professional Writing Credits: 3
- ENGL 309 - Advanced Professional Writing Credits: 3
- FIN 320 - Managerial Finance Credits: 3
- FIN 321 - Investments Credits: 3
- FIN 323 - Financial Markets and Institutions Credits: 3
- FIN 326 - Intermediate Corporate Finance Credits: 3
- FIN 329 - Principles of Insurance Credits: 3
- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- MATH 252 - Introduction to Statistical Modeling Credits: 3
- MATH 311 - Introduction to Operations Research Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3
- MATH 335 - Mathematical Modeling Credits: 3

## Minor in Elementary School Mathematics

Mathematics Department

To earn a minor in Elementary School Mathematics, at least nine credit hours of mathematics courses used for the Elementary School Mathematics minor must be taken at Slippery Rock University. Note: Some of these courses have prerequisites that must be met.

### Requirements for the Minor

- ELEC 342 - The Teaching of Elementary Mathematics Credits: 3
- MATH 118 - Elementary Geometry Credits: 3
- MATH 210 - Elementary Mathematics I Credits: 3
- MATH 310 - Elementary Mathematics II Credits: 3

### Three Additional Courses from:

- MATH 113 - Mathematics as a Liberal Art Credits: 3
- MATH 115 - Financial Mathematics Credits: 3
- MATH 122 - Matrices and Linear Programming Credits: 3
- MATH 125 - Precalculus Credits: 4

- MATH 131 - Discrete Mathematics Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- MATH 153 - Elementary Statistics II Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3

## Minor in Mathematics

Mathematics Department

To earn a Minor in Mathematics, at least nine credit hours of mathematics courses used for the mathematics minor must be taken at Slippery Rock University.

### Requirements for the Minor

- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4

### And One of the Following Tracks:

#### A. Pure Mathematics Track:

- MATH 235 - Modern Concepts of Mathematics Credits: 3

#### And at Least Two of the Following:

- MATH 304 - Geometric Structures Credits: 3
- MATH 309 - Linear Algebra Credits: 3
- MATH 313 - Introductory Analysis I Credits: 3
- MATH 314 - Introductory Analysis II Credits: 3
- MATH 320 - Theory of Numbers Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3
- MATH 326 - Abstract Algebra II Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3

#### B. Applied Mathematics Track:

- MATH 240 - Linear Algebra and Differential Equations Credits: 3

#### And at Least Two of the Following:

- MATH 301 - Differential Equations I Credits: 3
- MATH 302 - Differential Equations II Credits: 3
- MATH 309 - Linear Algebra Credits: 3

- MATH 311 - Introduction to Operations Research Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3
- MATH 331 - Mathematical Methods of Physics Credits: 3  
Cross listed as PHYS 331. This may be used as a Mathematics course or a Physics course but not for both.
- MATH 335 - Mathematical Modeling Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3

## Residency Requirement for Minor in Mathematics

To earn a minor in mathematics, all students must complete a minimum of 9 credit hours of mathematics courses, of which 6 credit hours must be at the 300 level or above, at Slippery Rock University.

## Minor in Middle School Mathematics

Mathematics Department

To earn a minor in Middle School Mathematics, at least nine credit hours of mathematics courses used for the minor must be taken at Slippery Rock University. Note: Some of these courses have prerequisites that must be met.

All course selections must be approved by the Mathematics Department since some courses may not be used by certain majors.

## Requirements for the Minor

- MATH 118 - Elementary Geometry Credits: 3  
OR
- MATH 304 - Geometric Structures Credits: 3
- MATH 210 - Elementary Mathematics I Credits: 3
- MATH 310 - Elementary Mathematics II Credits: 3
- SEFE 311 - Teaching of Mathematics in the Middle School Credits: 3

## Three Additional Courses

Choose from the following:

- MATH 113 - Mathematics as a Liberal Art Credits: 3
- MATH 122 - Matrices and Linear Programming Credits: 3
- MATH 131 - Discrete Mathematics Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- MATH 153 - Elementary Statistics II Credits: 3
- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- MATH 235 - Modern Concepts of Mathematics Credits: 3
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3

- MATH 309 - Linear Algebra Credits: 3
- MATH 311 - Introduction to Operations Research Credits: 3
- MATH 320 - Theory of Numbers Credits: 3
- MATH 325 - Abstract Algebra I Credits: 3

## Minor in Statistics

Mathematics Department

To earn a Minor in Statistics, at least nine credit hours of the mathematics courses used for the statistics minor must be taken at Slippery Rock University. Some of these courses have prerequisites that must be met. In particular, Mathematical Statistics I/II have Calculus II as a prerequisite.

### Requirements for the Minor

No more than six credits may count toward both a mathematics major and a statistics minor.

- MATH 152 - Elementary Statistics I Credits: 3
- MATH 153 - Elementary Statistics II Credits: 3
- MATH 252 - Introduction to Statistical Modeling Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3
- MATH 353 - Mathematical Statistics II Credits: 3

### And at Least 3 Courses From:

MATH 225, 230 and 231 may not be used by Mathematics major as courses that count toward the Statistics Minor.

- BIOL 325 - Biometry / Lab Credits: 3
- CPSC 323 - Data Base Systems Credits: 3
- CPSC 358 - Simulation Credits: 3
- ECON 318 - Intermediate Statistical Analysis Credits: 3
- HLTH 312 - Data Management for Health Science Credits: 3
- HLTH 313 - Biostatistics Credits: 3
- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- PSYC 421 - Advanced Behavioral Statistics Credits: 3

## Teacher Certification in Mathematics

### Requirements for the Certification

Teacher certification is earned through the master of education degree at Slippery Rock University. Students seeking secondary school teaching certification in mathematics must earn a bachelor of arts or a bachelor of science degree in mathematics and contact the Department of Secondary Education/Foundations of Education concerning its graduate

program in education. Information about this program, including prerequisites for admission, may be obtained from the secondary education/foundations of education office in 114 McKay Education Building.

## **Nursing**

104 Vincent Science Center  
724-738-2065

### **Nursing**

Currently, the Department of Nursing offers two totally online programs: RN to BSN Completion Program and Certification in School Nursing. The RN to BSN Completion Program at Slippery Rock University offers a totally online program that leads to a bachelor of science in nursing. It is designed to meet the needs of Registered Nurses who are graduates of hospital diploma nursing programs or Associate Degree programs in nursing.

The purpose of the program is to prepare baccalaureate educated practitioners of nursing to provide health care to persons, families, and groups in a variety of settings, using the nursing process. The program provides a strong educational foundation upon which to build graduate study.

### **Chair**

Diana Jones

### **Secretary**

Heather Bennett

### **Faculty**

Diana Jones, M. Patrice McCarthy, Kerry Risco, Peggy Shipley, Mary Ann Thurkettle, Diane Tomasic

This program, which leads to a bachelor of science in nursing, is designed to meet the needs of registered nurses who are graduates of hospital diploma nursing programs or associate degree programs in nursing. The program is accredited by the National League for Nursing Accrediting Commission. To be eligible to begin the junior level nursing courses, students must have completed 63 or more non-remedial college credits. The curriculum for the program includes two required supportive courses, and courses in the nursing major. The nursing curriculum includes theoretical content. The flexibility of the program enables the registered nurse to attend school on a part-time or full-time basis. Nursing and the two support courses are web-based and available to nursing students anytime, anywhere. The purpose of the program is to prepare practitioners of nursing to provide health care to persons, families, and groups in a variety of settings, using the nursing process. The program provides a strong educational foundation upon which to build graduate study.

Students in the RN-BSN upper division nursing program are required to have a minimum of 2.500 GPA or higher on entry to the nursing major and must maintain the 2.500 GPA throughout the nursing program from entry to exit. The students must have and maintain BOTH the cumulative 2.500 GPA and the nursing major 2.500 GPA. Other minors can also be pursued while enrolled in the BSN program.

## **Nursing (BSN)**

Nursing Department

**Requirements for the Major - Credits: 39**

This totally online RN to BSN Completion program requires 33 upper division credits of nursing and 6 credits of support courses at the 300 level or above. To be admitted, an applicant must have a current licensure as a Registered Nurse, a minimum of 63 non-remedial college credits and a GPA of 2.5. All credits from Associate Degree programs are transferred in. Thirty credits are granted through advanced placement for diploma graduates. All students must also have a total of 48 credits in Liberal Studies for graduation.

## Core Courses

- NURS 311 - Introduction to Health Care Informatics Credits: 3
- NURS 312 - Nursing in Transition Credits: 3
- NURS 322 - The Teaching-Learning Process in Nursing Credits: 3
- NURS 327 - Group Process for Nursing Credits: 3
- NURS 331 - Evidence Based Health Assessment and Promotion Credits: 3
- NURS 408 - Delivery of Nursing Care in a Managed Care Environment/Clinical Credits: 3
- NURS 422 - Nursing Research Credits: 3
- NURS 426 - Community and Public Health Nursing Credits: 3
- NURS 440 - Nursing Case Management in Today's Healthcare Environment Credits: 3

## Nursing Electives - Credits: 6

6 credits from the following:

- NURS 429 - Financial Management for Nursing Case Managers Credits: 3
- NURS 430 - Leadership in Nursing and Healthcare Systems Credits: 3
- NURS 433 - Innovative Technology for Healthy Communities Credits: 3
- NURS 498 - Selected Topics Credits: 3
- NURS 510 - Cardiovascular Function: Assessment and Treatment Credits: 3
- NURS 511 - Advanced Healthcare Informatics Credits: 3

## Required Non-Nursing Courses - Credits: 6

- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PROF 317 - Statistics for the Social Sciences Credits: 3

## Degree Completion in Two Years

Total of 39 credits of Nursing and support credits are possible to be taken within a two year period of time. There is no statute of limitation, so courses can be taken as a part-time or full-time load.

## Academic Standing

Students applying to the RN to BSN upper division nursing program are required to have a minimum of 2.5 GPA for admission.

Students in the RN to BSN program must maintain a 2.5 GPA throughout the nursing program. The students must have and maintain BOTH the cumulative and the Nursing major 2.5 GPA.

BSN majors must attain a grade of C or better in all nursing major courses. In the event that a final course grade of C is not attained, the course may be repeated one time. Failure to achieve the required grade on the second attempt will result in the removal of the student from the nursing major.

## **Parks and Recreation**

102 Patterson Hall  
724-738-2068

### **Parks and Recreation**

The Department of Parks and Recreation offers two degree programs leading to the Bachelor of Science: a BS in Parks and Recreation, with tracks in Park Resource Management and Resort Recreation Management/Tourism; and a BS in Therapeutic Recreation.

The Department cooperates closely with a number of government and private agencies and organizations in an effort to provide quality academic and practical experiences. Cooperative agreements with a variety of parks, resort, recreation, environment, and health-related agencies provide ample opportunities for students to acquire a sound base in the practical application of theory, knowledge, and skills provided in the classroom.

Graduates of the programs are currently employed in positions within the park and recreation fields. Many are serving as resort recreation directors, YMCA directors, recreation therapists, park managers and superintendents, national and state park rangers, outdoor recreation planners, environmental educators, nature and history interpreters, and other similar positions.

The mission of the Park Resource Management track is to provide students with the knowledge, skills, and abilities to function as park and resource management professionals for a variety of federal, state, local, and private agencies and organizations. The broad-based program approach provides study in natural history and ecology, natural systems management, cultural resource management, and contemporary issues in parks, recreation, and resource management. Coursework focused on administrative, interpretive, and sustainable planning aspects of park and recreation is also featured.

The mission of the Resort, Recreation and Hospitality Management option is to develop entry-level professionals in the fields of resort, conference group, community, and camping recreation and tourism with competencies in administration, leadership, programming, hospitality, and business skills. This is accomplished by providing quality academic preparation that incorporates both classroom and supervised practical experiences.

The mission of the Therapeutic Recreation program is to offer a quality undergraduate curriculum that prepares students for current entry-level practice in a variety of health and human service settings. The emphasis is on therapeutic recreation as a means to restore, remediate and/or rehabilitate individuals with a diversity of disorders/disabilities. The program integrates coursework, practical experiences, and professional activities as a foundation for the development of competent professionals.

All park and recreation majors must qualify for department advanced standing prior to enrollment in PREE450, Internship.

#### **Chair**

Daniel Dziubek

#### **Secretary**

Anita Culley



**Faculty**

Bruce Boliver, Jennifer Carben, Colleen Cooke, Daniel Dziubek, Deborah Hutchins, Christopher Leininger, John Lisco, Lalanda Stromp, Paulette Viola

## **Minor in Therapeutic Recreation: credits - 24**

Parks and Recreation / Environmental Education

The Therapeutic Recreation course work provides students with direct experiences in assessment, planning, implementing, and evaluating programs to meet the needs of individuals from various populations including people with disabilities, adolescents at risk, and older adults. In the Department of Parks and Recreation, this minor would provide students with more experiences and skills in serving people with disabilities in the community or in the resort industry.

### **Required Courses: credits 21**

- PREE 120 - Inclusive Leisure Services Credits: 3
- PREE 220 - Therapeutic Recreation Services Credits: 3
- PREE 314 - Clinical Aspects of Therapeutic Recreation Credits: 3
- PREE 319 - Client Assessment in Therapeutic Recreation Credits: 3
- PREE 320 - Therapeutic Recreation Program Design Credits: 3
- PREE 351 - Practicum Credits: 3
- PREE 423 - Therapeutic Recreation Interventions Credits: 3

### **Select one of the following courses - credits 3**

- PREE 232 - Therapeutic Recreation for People with Physical Disabilities Credits: 3
- PREE 233 - Therapeutic Recreation for People with Mental Health and Psychosocial Disorders Credits: 3
- PREE 420 - Therapeutic Recreation for Elderly Populations Credits: 3

## **Parks & Recreation (BS) - Track in Park Resource Management**

Parks and Recreation

GPA Requirement

- 2.75 or higher Major GPA
- 2.25 or higher Overall GPA

### **Parks and Recreation Core: Credits - 42**

- PREE 110 - Foundations of Parks and Recreation I Credits: 3
- PREE 111 - Foundations of Parks and Recreation II Credits: 3

- PREE 120 - Inclusive Leisure Services Credits: 3
- PREE 214 - Parks and Recreation Planning Credits: 3
- PREE 215 - Park and Recreation Public Relations Credits: 3
- PREE 222 - Recreation Programming and Leadership Credits: 3
- PREE 316 - Management of Leisure Services and Commercial Facilities Credits: 3
- PREE 318 - Park and Recreation Administration Credits: 3
- PREE 351 - Practicum Credits: 3
- PREE 415 - Challenges and Trends in Parks and Recreation Credits: 3
- PREE 450 - Internship Credits: 12

## Park Resource Management Track: Credits - 18

- PREE 315 - Recreation Resource Planning and Analysis Credits: 3
- PREE 347 - Interpretive Methods and Programming Credits: 3
- PREE 348 - Natural History of Ecosystems I Credits: 3
- PREE 349 - Natural History of Ecosystems II Credits: 3
- PREE 475 - Park and Resource Management Credits: 3
- PREE 477 - Parks, Wildlife and Wildlife Management Credits: 3

## **Parks & Recreation (BS) - Track in Resort, Recreation and Hospitality Management**

Beginning Spring 2014 Resort Recreation Management and Tourism has changed the title of its major to Resort, Recreation and Hospitality Management.

Parks and Recreation

GPA Requirement

- 2.75 or higher Major GPA
- 2.25 or higher Overall GPA

## Parks and Recreation Core: Credits - 42

- PREE 110 - Foundations of Parks and Recreation I Credits: 3
- PREE 111 - Foundations of Parks and Recreation II Credits: 3
- PREE 120 - Inclusive Leisure Services Credits: 3
- PREE 214 - Parks and Recreation Planning Credits: 3
- PREE 215 - Park and Recreation Public Relations Credits: 3
- PREE 222 - Recreation Programming and Leadership Credits: 3
- PREE 316 - Management of Leisure Services and Commercial Facilities Credits: 3
- PREE 318 - Park and Recreation Administration Credits: 3
- PREE 351 - Practicum Credits: 3
- PREE 415 - Challenges and Trends in Parks and Recreation Credits: 3
- PREE 450 - Internship Credits: 12

## Resort Recreation Management/Tourism: Credits - 18

- PREE 311 - Principles of Commercial Recreation/Tourism Credits: 3
- PREE 312 - Commercial Recreational Feasibility Studies Credits: 3
- PREE 416 - Group Recreation Programming Credits: 3
- PREE 417 - Hotel/Lodging & Hospitality Management Credits: 3
- PREE 436 - Event Planning & Tournament Structure Credits: 3
- MRKT 330 - Principles of Marketing Credits: 3

## Therapeutic Recreation (BS)

Parks and Recreation / Environmental Education

Therapeutic recreation specialists, also known as recreational therapists, use selective activities to address the physical, cognitive, and psychosocial needs of persons with illness or disability. Activity modalities and intervention techniques are utilized to improve function/health and to promote independence and wellness.

The bachelor of science degree emphasis in therapeutic recreation supplements a solid liberal studies foundation with course work related to human development/growth and movement. Field work, practicum, and a culminating internship assist students in gaining experience in a TR setting prior to graduation. In addition, students may choose from several specialty tracks which offer focused coursework to enhance knowledge and skills in a given area, i.e., mental health, rehabilitation, corrections, gerontology, and community. Minors are also available in related areas such as gerontology, exceptionalities, psychology, sociology, and adapted physical activity and rehabilitation.

The therapeutic recreation program is designed with the intent that students will meet the eligibility requirements to sit for the national certification exam administered by the National Council for Certification.

## Core Courses - Credits: 18

Evidence of current First Aid & CPR certification must be provided prior to enrollment in PREE 450, Internship.

- PREE 120 - Inclusive Leisure Services Credits: 3
- PREE 415 - Challenges and Trends in Parks and Recreation Credits: 3
- PREE 450 - Internship Credits: 12

## Therapeutic Recreation Track Studies - Credits: 33

- PREE 220 - Therapeutic Recreation Services Credits: 3
- PREE 232 - Therapeutic Recreation for People with Physical Disabilities Credits: 3
- PREE 233 - Therapeutic Recreation for People with Mental Health and Psychosocial Disorders Credits: 3
- PREE 314 - Clinical Aspects of Therapeutic Recreation Credits: 3
- PREE 317 - Organization and Management of Therapeutic Recreation Practice Credits: 3
- PREE 319 - Client Assessment in Therapeutic Recreation Credits: 3
- PREE 320 - Therapeutic Recreation Program Design Credits: 3
- PREE 351 - Practicum Credits: 3
- PREE 420 - Therapeutic Recreation for Elderly Populations Credits: 3
- PREE 422 - Leisure Education Strategies Credits: 3

- PREE 423 - Therapeutic Recreation Interventions Credits: 3

## Required Therapeutic Recreation Courses - Credits: 9

- PE 360 - Anatomical and Physiological Bases of Physical Education Credits: 3
- PE 364 - Biomechanics of Individuals with Disabilities Credits: 3
- PSYC 344 - Developmental Psychology Credits: 3

## Professional Electives - Credits: 12

- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PSYC 105 - Introduction to Psychology Credits: 3
- PSYC 276 - Introduction to Abnormal Psychology Credits: 3

## NCTRC Certification Requirements

Courses in the NCTRC Certification Requirements are already counted within Professional Electives and Required Therapeutic Recreation Courses.

- PE 360 - Anatomical and Physiological Bases of Physical Education Credits: 3
- PE 364 - Biomechanics of Individuals with Disabilities Credits: 3
- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PSYC 105 - Introduction to Psychology Credits: 3
- PSYC 276 - Introduction to Abnormal Psychology Credits: 3
- PSYC 344 - Developmental Psychology Credits: 3

## Physics

208 Vincent Science Center  
724-738-2074

Physics

The mission of the Physics Department at Slippery Rock University is to service the Liberal Studies Program, provide content courses for other departments, and provide high-quality major and pre-engineering programs. The department is equally committed to each of these three areas and is actively involved in curriculum and program review on an ongoing basis. With regards to the Liberal Studies Program, the department aims to offer courses that compliment the "Seven Critical Goals Towards Becoming an Educated Person." The department also offers many courses that provide basic and advanced content to students with other majors. Finally, the department aims to provide major programs that allow technical specialization and flexibility to its graduates. Many possible career options are available to physics majors; the department's curriculum provides the training necessary to many of these options.

### Chair

Ben Shaevitz

### Secretary

Cheryl Dolan

### **Faculty**

Ben Shaevitz, Athula Herat, Rizwan Mahmood, Krishna Mukherjee, Manuel Valera

"SRU physics is a small department that offers infinite possibilities for achievement. The SRU Physics department infuses classical and modern theory with advanced and up-to-date experimentation and teaching tools. The faculty is small and very personal, offering guidance based on the student's learning abilities rather than from a "textbook" viewpoint. The faculty is knowledgeable in both subject content as well as information presentation. If you are a great science student, or you are learning about science for the first time, the SRU Physics department will guide you through an intricate, student-friendly web of lecture, problem solving, experimentation, data analysis, and research. Whether you are training to be the next Heisenberg or Einstein, the next great engineer, the next great high school teacher, or simply learning problem solving skills to use in any workplace, the SRU Physics department is a gateway to success."

-Stephen Murray

B.s in Physics, Pre-Master in Education

## **Minor in Physics**

Physics Department

### **Requirements for the Minor**

Two courses at or above the 300 level and the following:

- PHYS 211 - General Physics I/ Lab Credits: 4
- PHYS 212 - General Physics II/ Lab Credits: 3
- PHYS 213 - General Physics III/ Lab Credits: 4

## **Physics (BA)**

Physics Department

Physicists study the world around us in order to discover the basic principles or laws which govern the natural world.

As a physicist you can:

- Seek to understand the origin of the universe and the ultimate structure of matter;
- Study the principles underlying the structure of materials in order to design faster computer chips or improved liquid crystals used for electronic displays;
- Work in hands-on lab courses studying laser-based optics, learn electronic instrumentation for the physical sciences including the computer acquisition and analysis of data, and use modern lab equipment such as the electron spin resonance spectrometer which can detect the radiation from individual atoms;
- Acquire the theoretical and experimental background for work in areas such as acoustics, astrophysics, biophysics, chemical physics, computer science, education mathematical physics, and engineering.

Developments in science and technology move very fast and a degree in physics provides you with the fundamental tools, which you will need in order to attack the scientific and technological problems of this millennium.

An undergraduate degree in Physics gives students a broad, deep, rigorous understanding to solve many types of quantitative problems, a skill which is useful to many different careers in computers, engineering, finance, etc. With the rapid and unpredictable pace and direction of technological advance, training in physics gives the undergraduate their most important skill, namely the ability to think clearly and rigorously about a technical problem which may arise in the workplace.

Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that physicists must have.

## Requirements for the Major

### College Requirements

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 125 - Precalculus Credits: 4  
OR
- MATH 225 - Calculus I Credits: 4
- PHYS 201 - Elements of Physics I/ Lab Credits: 4  
OR
- PHYS 211 - General Physics I/ Lab Credits: 4

### Required Physics Courses

- PHYS 212 - General Physics II/ Lab Credits: 3
- PHYS 213 - General Physics III/ Lab Credits: 4
- PHYS 314 - Engineering Mechanics I: Statics Credits: 3
- PHYS 331 - Mathematical Methods of Physics Credits: 3
- PHYS 381 - Advanced Physics Laboratory Credits: 2
- PHYS 411 - Modern Physics Credits: 4

### Required Physics Electives

Choose two courses:

- PHYS 315 - Engineering Mechanics II: Dynamics Credits: 3
- PHYS 375 - Thermal Physics Credits: 3
- PHYS 385 - Computational Physics Credits: 3
- PHYS 410 - Electricity and Magnetism Credits: 3
- PHYS 480 - Quantum Credits: 3

### Related Field Work

- CPSC 140 - Introduction to Programming Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3

## A Language is Required of all BA Majors

Modern Language competency at the 103 level is required.

## Specialization: Engineering

See the Pre-professional Programs section.

## Physics (BS)

Physics Department

Physicists study the world around us in order to discover the basic principles or laws which govern the natural world. As a physicist you can:

- Seek to understand the origin of the universe and the ultimate structure of matter;
- Study the principles underlying the structure of materials in order to design faster computer chips or improved liquid crystals used for electronic displays;
- Work in hands-on lab courses studying laser-based optics, learn electronic instrumentation for the physical sciences including the computer acquisition and analysis of data, and use modern lab equipment such as the electron spin resonance spectrometer which can detect the radiation from individual atoms;
- Acquire the theoretical and experimental background for work in areas such as acoustics, astrophysics, biophysics, chemical physics, computer science, education mathematical physics, and engineering.

Developments in science and technology move very fast and a degree in Physics provides you with the fundamental tools, which you will need in order to attack the scientific and technological problems of this millennium.

An undergraduate degree in Physics gives students a broad, deep, rigorous understanding to solve many types of quantitative problems, a skill which is useful to many different careers in computers, engineering, finance, etc. With the rapid and unpredictable pace and direction of technological advance, training in physics gives the undergraduate their most important skill, namely the ability to think clearly and rigorously about a technical problem which may arise in the workplace.

Students seeking state certification in secondary education must also complete requirements for a Master of Education degree, a one-year program at SRU. All of our programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills that physicists must have.

*New* Concentration in Computational Biophysics is available as an *optional* component to the B.S. Physics degree.

## Requirements for the Major

### College Wide Requirements

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## Required Courses

- PHYS 212 - General Physics II/ Lab Credits: 3
- PHYS 213 - General Physics III/ Lab Credits: 4
- PHYS 314 - Engineering Mechanics I: Statics Credits: 3
- PHYS 331 - Mathematical Methods of Physics Credits: 3
- PHYS 371 - Physical Optics Credits: 3
- PHYS 410 - Electricity and Magnetism Credits: 3
- PHYS 411 - Modern Physics Credits: 4
- PHYS 480 - Quantum Credits: 3

## Required Physics Electives

Choose two courses:

- PHYS 315 - Engineering Mechanics II: Dynamics Credits: 3
- PHYS 375 - Thermal Physics Credits: 3
- PHYS 385 - Computational Physics Credits: 3

## Related Field Work

- CHEM 108 - General Chemistry II Credits: 3
- CHEM 112 - General Chemistry II Lab Credits: 1
- CPSC 140 - Introduction to Programming Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 301 - Differential Equations I Credits: 3

## BS Physics - Computational Physics Track

Computational Physics combines physics, computer science and applied mathematics in order to provide scientific solutions to realistic and complex problems. Physicists have very precise mathematical theories describing how physical systems will behave. Unfortunately, very often the theory's equations are so complex that solving them analytically is not realistic. This is where the computational physicists come in. With the use of computers, they perform these complex calculations that cannot be done using the traditional techniques.

## College-Wide Requirements

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- MATH 225 - Calculus I Credits: 4
- PHYS 211 - General Physics I/ Lab Credits: 4

## Required Major Courses



- PHYS 212 - General Physics II/ Lab Credits: 3
- PHYS 213 - General Physics III/ Lab Credits: 4
- PHYS 315 - Engineering Mechanics II: Dynamics Credits: 3
- PHYS 331 - Mathematical Methods of Physics Credits: 3
- PHYS 381 - Advanced Physics Laboratory Credits: 2
- PHYS 385 - Computational Physics Credits: 3
- PHYS 411 - Modern Physics Credits: 4
- PHYS 480 - Quantum Credits: 3
- PHYS 490 - Independent Study Credits: 1 to 3

## Required Physics Electives

Choose two courses:

NOTE: students are encouraged to take PHYS 410

- PHYS 314 - Engineering Mechanics I: Statics Credits: 3
- PHYS 325 - Analog & Digital Electronics Credits: 3
- PHYS 371 - Physical Optics Credits: 3
- PHYS 375 - Thermal Physics Credits: 3
- PHYS 410 - Electricity and Magnetism Credits: 3

## Related Field Work

- CPSC 140 - Introduction to Programming Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 374 - Algorithms and Data Structures Credits: 3
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 301 - Differential Equations I Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3

## Concentration in Computational Biophysics

Advances in genetics and molecular biology, and the impetus of the genome project, has generated a need for using computational sciences to understand biological processes. The proposed concentration is to prepare students in the interdisciplinary areas of BioInformatics and Biophysics consisting of coursework from biology, computer science, chemistry, mathematics and physics. The concentration in computational biophysics will allow students to either obtain jobs or pursue graduate school in the areas of biophysics, bioinformatics, cellular and systems biology, genomics and proteomics, molecular structural biology, biochemistry, drug discovery, drug design, protein structure, gene finding and genome assembly to name a few.

- BIOL 104 - Principles of Biology Credits: 4
- BIOL 250 - Genetics Credits: 4
- BIOL 325 - Biometry / Lab Credits: 3
- BIOL 335 - Cell Biology Credits: 3

- BIOL 370 - Molecular Biology Credits: 3
- CHEM 201 - Organic Chemistry I Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 374 - Algorithms and Data Structures Credits: 3
- CPSC 498 - Selected Topics Credits: 1 to 3  
Topic: Machine Learning and BioInformatics

## Pre-engineering

Physics Department

327 Vincent Science Hall  
724-738-2074

In a cooperative program with the Pennsylvania State University (PSU), West Virginia University (WVU), or Youngstown State University (YSU), the pre-engineering student undertakes a three-year curriculum in liberal studies and natural sciences (physics, mathematics, chemistry, geology) at SRU and a two-year engineering curriculum at PSU, WVU, or YSU. A student recommended for transfer by SRU's Department of Physics will be able to enter any one of the following areas of study:

Agricultural and Biological Engineering  
Chemical Engineering  
Civil & Environmental Engineering  
Computer Engineering  
Electrical Engineering  
Energy Engineering  
Engineering Science  
Geo-Environmental Engineering  
Industrial Engineering  
Material Science and Engineering  
Mechanical Engineering  
Mining Engineering  
Nuclear Engineering  
Petroleum and Natural Gas Engineering

The cooperative program is an effort to fulfill the following objectives:

1. To cooperatively provide a general education in liberal arts and sciences, as well as engineering education for each student enrolled so that through five years of study a student may complete what otherwise could require six or more years.
2. To provide a student who has not yet decided between engineering and other disciplines, additional time to make that decision while the student studies both arts and sciences during the first three years at Slippery Rock University.
3. To enable qualified students to receive both a liberal and technical education at relatively low cost and, in doing so, provide the commonwealth and the nation with more broadly educated engineers.

## Requirements for the Major

# Specialization: Pre-engineering

## Required Physics Courses

- PHYS 140 - Engineering Graphics I Credits: 2
- PHYS 141 - Engineering Graphics II Credits: 1
- PHYS 211 - General Physics I/ Lab Credits: 4
- PHYS 212 - General Physics II/ Lab Credits: 3
- PHYS 213 - General Physics III/ Lab Credits: 4
- PHYS 314 - Engineering Mechanics I: Statics Credits: 3
- PHYS 331 - Mathematical Methods of Physics Credits: 3

## Related Field Work

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- CPSC 140 - Introduction to Programming Credits: 3
- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4
- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- MATH 301 - Differential Equations I Credits: 3

## Engineering Electives

Elective courses should be selected based upon the area of engineering chosen. Please contact your academic advisor for specific course selections.

Choose nine credits from the following:

- CHEM 201 - Organic Chemistry I Credits: 3
- CHEM 202 - Organic Chemistry II Credits: 3
- CHEM 211 - Organic Chemistry Laboratory I Credits: 1
- CHEM 212 - Organic Chemistry Laboratory II Credits: 1
- CHEM 301 - Physical Chemistry 1 Credits: 3
- CPSC 246 - Advanced Programming Principles Credits: 4
- CPSC 236 - Selected Computer Languages Credits: 3
- CPSC 370 - Computer Organization & Architecture Credits: 3
- EGEO 101 - Physical Geology Credits: 3
- EGEO 111 - Physical Geology Lab Credits: 1
- EGEO 201 - Earth Materials and Processes Credits: 3
- EGEO 202 - Earth History Credits: 3
- EGEO 212 - Earth History Lab Credits: 1
- EGEO 327 - Structural Geology Credits: 3

- EGEO 360 - Introduction to Hydrology Credits: 3
- MATH 315 - Numerical Mathematics Credits: 3
- MATH 352 - Mathematical Statistics I Credits: 3
- PHYS 315 - Engineering Mechanics II: Dynamics Credits: 3
- PHYS 371 - Physical Optics Credits: 3
- PHYS 375 - Thermal Physics Credits: 3
- PHYS 381 - Advanced Physics Laboratory Credits: 2
- PHYS 382 - Optics Laboratory Credits: 2
- PHYS 385 - Computational Physics Credits: 3
- PHYS 410 - Electricity and Magnetism Credits: 3
- PHYS 411 - Modern Physics Credits: 4
- PHYS 480 - Quantum Credits: 3

## Liberal Studies Requirements - Credits: 38

- Basic Requirements
- The Arts
- Global Community (An economics course is required at PSU and may be taken at SRU.)
- Human Institutions and Interpersonal Relations
- Challenges of the Modern Age (the requirements in this block were waived by the University Curriculum Committee.)

## Intensive Writing Courses

Intensive Writing Courses (Two intensive writing courses are required, but they may also count in the liberal studies blocks or major)

## Degree Completion in Five Years Physics (BA)

### **(SRU Portion of 3 + 2 Program)**

#### Freshman Year - Total Hours: 34

- Liberal Studies - Credits: 7
- CPSC 140 - Introduction to Programming Credits: 3
- ENGL 101 - Introduction to College Writing Credits: 3
- ENGL 103 - College Writing II Credits: 3
- MATH 225 - Calculus I Credits: 4
- MATH 230 - Calculus II Credits: 4
- PHYS 140 - Engineering Graphics I Credits: 2
- PHYS 141 - Engineering Graphics II Credits: 1
- PHYS 211 - General Physics I/ Lab Credits: 4
- PHYS 213 - General Physics III/ Lab Credits: 4

#### Sophomore Year - Total Hours: 32

- Liberal Studies - Credits: 7
- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- COMM 200 - Public Speaking Credits: 3
- ENGL 210 - Interpreting Literature Credits: 3
- MATH 231 - Calculus III Credits: 4
- MATH 240 - Linear Algebra and Differential Equations Credits: 3
- PHYS 212 - General Physics II/ Lab Credits: 3

## Junior Year - Total Hours: 30

- Liberal Studies - Credits: 12
- PHYS Elective - Credits: 9
- MATH 301 - Differential Equations I Credits: 3
- PHYS 314 - Engineering Mechanics I: Statics Credits: 3
- PHYS 331 - Mathematical Methods of Physics Credits: 3

## Senior Year - Credits from Penn State, WVU, or YSU

Senior Year Credits from Penn State, WVU, or YSU

## Pre-metrology

047 East Gym  
724-738-2074

Metrology is the science of measurement. Metrologists develop and evaluate calibration systems that measure characteristics of physical objects, substances, or phenomena. Quantities measured include mass, length, time, temperature, electric current, luminous intensity, and other derived units of physical or chemical measure. Metrologists also develop calibration methods and techniques based on the techniques of measurement science, technical analysis of measurement problems, and accuracy and precision requirements. Metrologists are typically employed in research laboratories, government agencies, the military, and private industry.

Slippery Rock University and Butler County Community College offer a joint cooperative program in Metrology and Physics. This cooperative program has the following major objectives.

1. To provide cooperatively a general education in a liberal arts institution, as well as technical education in a specialized school for each student enrolled so that through four years of study, a student may complete what otherwise could require five or more years.
2. To allow those qualified students to receive both a liberal and technical education at relatively low costs and, in so doing, provide the Commonwealth and the Nation with more broadly educated scientists.

Students can choose from two programs offered. Butler County Community College students enrolled in the metrology program can complete their AAS. degree and then transfer to Slippery Rock University in order to complete a BS or BA degree in physics. For the typical student, this transfer will comprise a 2-2 program, with two years spent at Butler County Community College and two years at Slippery Rock University. Students successfully completing this program will be awarded two degrees. Slippery Rock University students enrolled in the BA degree physics program can complete their undergraduate studies in the metrology program at Butler County Community College. For a typical student, this transfer will comprise a 3-1 program, with three years spent at Slippery Rock University and one year at

Butler County Community College. Students successfully completing this program will be awarded two degrees: a BA in physics from Slippery Rock University and an AAS in metrology from Butler County Community College.

Specific plans of study and other metrology program details can be obtained by contacting the chair of the physics department in room 327 Vincent Science Hall.

## **Teacher Certification in Physics**

### **Requirements for the Certification**

Teacher certification is earned through the master of education degree at Slippery Rock. Students seeking secondary school teaching certification in physics must earn a bachelor of arts or a bachelor of science degree in physics and contact the Department of Secondary Education/Foundations of Education concerning its graduate program in education. Information about this program, including prerequisites for admission, may be obtained from the Secondary Education/Foundations of Education office in 114 McKay Education Building.

## **Psychology**

309 Vincent Science Center  
724-738-2077

### **Psychology**

Psychology is the study of human and animal behavior. Psychology has three faces: It is a discipline, a major subject of study in colleges and universities. It is a science, a method of conducting research and of understanding behavioral data. Psychology is also a profession, a calling that requires one to apply special knowledge, abilities, and skills in order to solve human problems. Thus, the department's mission is threefold. First, we strive to provide our students with discipline specific knowledge that is accurate and reflects current approaches in the field of psychology. Second, we instruct them in the scientific method of acquiring knowledge and enhance their research skills and sense of inquiry. Third, we prepare students to enter the profession in which they can apply the knowledge and abilities acquired to understand and suggest solutions for real-world problems. The cornerstone of our mission and our curriculum is a commitment to provide our students with a strong experimental foundation, or understanding that psychology is a science, and as such uses the scientific method to conduct research and to understand behavior. This experimental foundation is necessary so that students are prepared to do research, or if that is not in their plans, to be critical consumers of the research literature in whatever area of psychology they choose.

### **Chair**

Jennifer Sanftner

### **Secretary**

Arlene Widenhofer

### **Faculty**

Elizabeth Boerger, Catherine Massey, Chris L. Niebauer, Ann Romanczyk, Jennifer Sanftner, Linda Veronie, Jennifer Willford

Psychology is the science of behavior. The discipline is experiencing unprecedented growth and change. This is an important and exciting science that attempts to understand human behavior.

The Department of Psychology is oriented toward meeting three broad educational needs: preparation of students for occupations related to the field; preparation of exceptional students for entry into graduate programs at universities; preparation for other fields, such as medicine, law, social work, and others. The department has established

experimental laboratories for studying animal and human learning, cognition, physiological processes, and clinical eating disorders. In addition, the department has developed working relationships with a number of private and community agencies to provide research and training experiences for students.

Opportunities for professional involvement include Psi Chi and the Psychology Club, who organize and participate in service, fundraising, social, and educational activities. There are opportunities to gain research experience via participation in departmental research activities. A significant number of majors have achieved co-authorship on research presentations at national meetings and on articles published in professional journals. Internship experiences generally reflect the career interests of the student. Recent sites include agencies offering services involving troubled youth, drug and alcohol rehabilitation, geriatric agencies, children and youth services, crime victim advocates, and general psychiatric facilities.

Alumni have successfully pursued graduate training in a wide spectrum of professional areas including clinical, counseling and social psychology, medicine and neuroscience. Many have chosen academic careers while others are involved in professional services.

## Minor in Psychology

Psychology Department

Students are required to maintain a minimum *Psychology* GPA of 2.5 in order to retain a declared major or minor in Psychology. Students are also required to earn a grade of C or higher in Introduction to Psychology (PSYC 105) in order to take most other required Psychology courses and to graduate with a major or minor in Psychology.

### Requirements for a Minor in Psychology - Credits: 18

Required course:

- PSYC 105 - Introduction to Psychology Credits: 3

Choose 15 credits from the following (at least 9 credits must be at the 300/400 level):

- PSYC 205 - Environmental Psychology Credits: 3
- PSYC 208 - Personality Credits: 3
- PSYC 221 - Introduction to Behavioral Statistics Credits: 3
- PSYC 233 - Sensation & Perception Credits: 3
- PSYC 240 - Human Sexual Behavior Credits: 3
- PSYC 276 - Introduction to Abnormal Psychology Credits: 3
- PSYC 300 - Psychology of Gender Credits: 3
- PSYC 302 - Psychology of Criminal Behavior Credits: 3
- PSYC 303 - Learning Credits: 3
- PSYC 304 - Theories of Counseling Credits: 3
- PSYC 306 - Introduction to Psychological Testing Credits: 3
- PSYC 310 - Introduction to Industrial-Organizational Psychology Credits: 3
- PSYC 311 - Introduction to Behavioral Neuroscience Credits: 3

- PSYC 315 - Psychology of Lesbian and Gay Identities Credits: 3
- PSYC 318 - Clinical Child Psychology Credits: 3
- PSYC 320 - Introduction to Clinical Psychology Credits: 3
- PSYC 321 - Drugs and Behavior Credits: 3
- PSYC 334 - Health Psychology Credits: 3
- PSYC 338 - Cognitive Psychology Credits: 3
- PSYC 344 - Developmental Psychology Credits: 3
- PSYC 360 - History of Psychology Credits: 3
- PSYC 364 - Child and Adolescent Development Credits: 3
- PSYC 365 - Psychology of Aging Credits: 3
- PSYC 377 - Social Psychology Credits: 3
- PSYC 392 - Cross Cultural Psychology Credits: 3
- PSYC 421 - Advanced Behavioral Statistics Credits: 3
- PSYC 449 - Seminar in Psychology Credits: 3
- PSYC 475 - Behavior Modification Credits: 3
- PSYC 480 - Behavior Management Credits: 3
- PSYC 490 - Independent Study Credits: 1 to 3

## Psychology (BA)

Psychology Department

Students are required to maintain a minimum *Psychology GPA* of 2.5 in order to retain a declared major or minor in Psychology. Students are also required to earn a grade of C or higher for the Required Core Courses, listed below, in order to take most other required Psychology courses and to graduate with a major or minor in Psychology.

### Requirements for the Major - Credits: 37

#### Required Core Courses - Credits: 10

- PSYC 105 - Introduction to Psychology Credits: 3
- PSYC 221 - Introduction to Behavioral Statistics Credits: 3
- PSYC 325 - Introduction to Experimental Psychology Credits: 3
- PSYC 326 - Experimental Psychology Laboratory Credits: 1

#### Core Electives - Credits: 15

Other courses are selected in consultation with the advisor from the Department of Psychology.

A minimum of 5 courses from the following:

- PSYC 276 - Introduction to Abnormal Psychology Credits: 3
- PSYC 303 - Learning Credits: 3
- PSYC 306 - Introduction to Psychological Testing Credits: 3



- PSYC 311 - Introduction to Behavioral Neuroscience Credits: 3
- PSYC 338 - Cognitive Psychology Credits: 3
- PSYC 344 - Developmental Psychology Credits: 3
- PSYC 360 - History of Psychology Credits: 3
- PSYC 377 - Social Psychology Credits: 3

## Free Electives - Credits: 12

An additional 12 PSYC credits are required for completion of major.

## Psychology (BS)

Psychology Department

Students are required to maintain a minimum *Psychology GPA* of 2.5 in order to retain a declared major or minor in Psychology. Students are also required to earn a grade of C or higher for the Required Core Courses, listed below, in order to take most other required Psychology courses and to graduate with a major or minor in Psychology.

## Requirements for the Major - Credits: 43

### Required Core Courses - Credits: 10

- PSYC 105 - Introduction to Psychology Credits: 3
- PSYC 221 - Introduction to Behavioral Statistics Credits: 3
- PSYC 325 - Introduction to Experimental Psychology Credits: 3
- PSYC 326 - Experimental Psychology Laboratory Credits: 1

### Core Electives - Credits: 15

Other courses are selected in consultation with the advisor from the Department of Psychology.

A minimum of 5 courses from the following:

- PSYC 276 - Introduction to Abnormal Psychology Credits: 3
- PSYC 303 - Learning Credits: 3
- PSYC 306 - Introduction to Psychological Testing Credits: 3
- PSYC 311 - Introduction to Behavioral Neuroscience Credits: 3
- PSYC 338 - Cognitive Psychology Credits: 3
- PSYC 344 - Developmental Psychology Credits: 3
- PSYC 360 - History of Psychology Credits: 3
- PSYC 377 - Social Psychology Credits: 3

### Required Professional Competency - Credits: 3-6

Must complete one of the following:

- PSYC 420 - Community Service Practicum in Psychology Credits: 3
- PSYC 430 - Research Practicum in Psychology Credits: 3
- PSYC 450 - Psychology Internship Credits: Up to 12

## Free Electives - Credits: 12-15

An additional 12-15 PSYC credits are required for major completion.

# Public Health and Social Work

111 Dinger Building  
724-738-2267

Public Health and Social Work

Welcome to the Department of Public Health and Social Work.

### **Chair**

Michael Cleary

### **Secretary**

Betsy Strawbridge

### **Faculty**

Thomas Bechard, Larry Breitenstein, Michael Cleary, Kimberly Forrest, Donald Gibala, Herman Jones, Marcy Leeds, Wendy Stuhldreher, Christophas Walker, Sandra Wexler

## Minor in Public Health

Public Health and Social Work Department

Students in related disciplines find that a minor in Public Health opens additional opportunities in non-profit community agencies, departments of health, work-site health promotion, health care settings and health voluntaries such as the American Cancer Society, American Heart Association, etc.

## Required Courses - Credits: 6

- HLTH 103 - Health and Behavior Change Credits: 3  
OR
- HLTH 210 - Introduction to Public Health Credits: 3
- HLTH 262 - Health Foundations Credits: 3

Choose 4 courses from the following:

- HLTH 301 - Introduction to Health Education Credits: 3
- HLTH 309 - Introduction to the Study of Disease Credits: 3
- HLTH 310 - Environmental Health Credits: 3
- HLTH 311 - International Health Credits: 3
- HLTH 312 - Data Management for Health Science Credits: 3
- HLTH 313 - Biostatistics Credits: 3
- HLTH 314 - Nutrition and Health Credits: 3
- HLTH 406 - Program Planning and Evaluation Credits: 3
- HLTH 410 - Epidemiology Credits: 3
- HLTH 440 - Public Health Seminar Credits: 3

## Public Health (BS)

### Public Health Program

*“After my graduation from Slippery Rock University, I had no problem gaining employment. Other health professionals seemed to be very impressed with the educational background I received as a community health major. Because I am working as a health data analyst, I found my data management, biostatistics, and epidemiology courses to be most helpful. My employers were also impressed that, while at SRU, I participated in an undergraduate research project. This provided me with the opportunity to further explore and practice data analysis.”*

**Amy Zychowski '99**

Public Health is a discipline in which professionals deliver health information and programs within the community setting. Graduates of this program have a broad based background in the field of health that prepares them for entry level positions in health education, health promotion, health data management or for further graduate study in a health-related field.

Upon completion of this program our students are eligible to sit for the Certified Health Education Specialist examination, which is a national credentialing examination for people who wish to practice health education in a community (non-public school) setting. Today, the Certified Health Education Specialist credential is often preferred or even required for many community health education positions. Graduates who complete our Public Health program successfully pass the Certified Health Education Specialist examination at a rate well above the national average. Recent graduates have entered positions in state and local health departments, community based wellness programs, voluntary health organizations such as the American Heart Association or American Cancer Society, and federal government health programs, and health insurance companies. Graduates also enter graduate programs in physical or occupational therapy, physicians assistant, nutrition, and public health.

Students are encouraged to take additional coursework or minors in complementary areas of study such as gerontology, Spanish, psychology or business. The program culminates in a 12-credit internship, which provides hands-on experiences and further insight into career opportunities in public health. Students may select their own internship site or may choose from a database of previously used sites. It is through this internship experience that students actually identify the branch of public health in which they would like to practice. Students are required to select a major project for their internship experience that demonstrates mastery of entry-level professional skills. Frequently interns remain at the sites as employees following their internships.

Public Health faculty members have on-going research projects in which advanced level students can become involved. Students help professors analyze data and prepare professional conference presentations, which the student actually presents under the mentorship of the faculty member. Other student activities include the Pennsylvania Public Health Association Collegiate Chapter and the peer health education program run by the SRU student health service.

## College Wide Requirements for Public Health

- MATH 152 - Elementary Statistics I Credits: 3
- BIOL 216 - Anatomy and Physiology/Lab Credits: 3
- BIOL 217 - Anatomy and Physiology/Lab Credits: 3
- CHEM 104 - Introduction Chemistry I Credits: 3  
or CHEM107, General Chemistry I

## Requirements for the Major

### Major Requirements

- BIOL 210 - Medical Microbiology/Lab Credits: 3
- HLTH 103 - Health and Behavior Change Credits: 3
- HLTH 210 - Introduction to Public Health Credits: 3
- HLTH 301 - Introduction to Health Education Credits: 3
- HLTH 309 - Introduction to the Study of Disease Credits: 3
- HLTH 310 - Environmental Health Credits: 3
- HLTH 311 - International Health Credits: 3
- HLTH 312 - Data Management for Health Science Credits: 3
- HLTH 313 - Biostatistics Credits: 3
- HLTH 314 - Nutrition and Health Credits: 3
- HLTH 406 - Program Planning and Evaluation Credits: 3
- HLTH 410 - Epidemiology Credits: 3
- HLTH 440 - Public Health Seminar Credits: 3
- HLTH 450 - Internship Credits: Up to 12

### Internship Required:

Cumulative GPA of 2.500 and program GPA of 2.500 required for internship assignments, which are during the summer.

Internship requirements are available from the Department of Public Health and Social Work.

### Choose 3 Courses from the following:

- COMM 307 - Social Media Credits: 3
- HLTH 211 - Women's Health Issues Credits: 3
- HLTH 316 - Human Sexuality Credits: 3
- GERO 414 - Death and Dying Credits: 3
- HLTH 424 - Nutrition and Exercise Credits: 3
- HSA 231 - The US Healthcare System Credits: 3
- HSA 335 - Current Topics in Health Care Credits: 3
- PSYC 276 - Introduction to Abnormal Psychology Credits: 3
- PSYC 344 - Developmental Psychology Credits: 3

## Retention Criteria

Students in the Public Health program are subject to the University retention criteria.

## Social Work (BS)

### Social Work

Social work is a profession that applies knowledge about people and society to help persons, groups, or communities meet a diversity of needs, solve a wide range of problems, promote social justice, and assist people in becoming empowered. The baccalaureate program in social work prepares students for generalist social work practice. As beginning professional social workers, graduates typically work in the areas of child welfare, juvenile and adult corrections, public assistance, health and mental health, aging domestic violence, and chemical dependency, among others.

The undergraduate program in social work awards a Bachelor of Science degree in Social Work and is accredited by the Council on Social Work Education, the national accrediting agency for social work. Accreditation standards require a solid core of courses on social welfare issues and policies, social work practice skills, basic social science research methods, and a broad background in the liberal arts with special emphasis on psychology, biology, economics, politics, sociology, organization, and diverse ethnic groups. In fulfilling the academic requirements for social work, students must also uphold the values of the profession of Social Work as expressed in the National Association of Social Work's Code of Ethics.

## Requirements for the Major

C or better grade as the minimum requirement of the three Social Work Methods courses in order to advance in the program.

Students must have a cumulative GPA of 2.5 or better for admission to the program.

## Required Core Courses - Credits: 48

- POLS 101 - American National Government Credits: 3
- PROF 201 - Principles of Sociology Credits: 3
- PSYC 105 - Introduction to Psychology Credits: 3
- SOWK 107 - Cultural Competency and Human Services Credits: 3
- SOWK 251 - Introduction to Social Work Credits: 3
- SOWK 328 - Human Behavior and the Social Environment I Credits: 3
- SOWK 329 - Human Behavior and the Social Environment II Credits: 3
- SOWK 340 - Social Welfare Institutions Credits: 3
- SOWK 355 - Social Work Practice with Individuals Credits: 3
- SOWK 356 - Social Work Practice with Groups and Families Credits: 3
- SOWK 357 - Social Work Practice with Organizations and Communities Credits: 3
- SOWK 407 - Social Policy Issues Credits: 3
- SOWK 450 - SOWK Internship Credits: Up to 12
- SOWK 460 - Social Work Integrative Seminar Credits: 3

## Research Block - Credits: 6

- SOWK 318 - Research Methods Credits: 3
- SOWK 319 - Statistical Methods Credits: 3

## School of Physical Therapy

Physical Therapy Building  
724-738-2080

School of Physical Therapy

The GSPT at SRU will prepare physical therapists who demonstrate competent, ethical, evidenced-based practice and professional behaviors in a dynamic health care environment. The graduates will be lifelong learners who serve the health care needs of consumers and a global society while contributing to the advancement of the profession.

### Chair

Carol Martin-Elkins

### Secretary

Susan Elwell

### Faculty

Barbara Billek-Sawhney, Carole Galletta, Mary Ann Holbein-Jenny, Christopher Hughes, Susan Kushner, Kelly M. Lindenberg, Carol Martin-Elkins, Meg Michaels, Nancy Shipe, Timothy Smith

## Physical Therapy 3 + 3 - Exercise Science (BS)

Exercise and Rehabilitative Sciences

The Exercise Science Program offers a 3+3 option for students interested in a career in physical therapy. Undergraduate students work with their academic advisor to complete the courses needed to fulfill the requirements for both an undergraduate degree and the entrance requirements for the Doctor of Physical Therapy program.

The first year of the Doctor of Physical Therapy (DPT) program meets the requirements for the fourth year of the undergraduate degree. Approved undergraduate majors in Biology, Public Health, Safety Management, and Therapeutic Recreation are also available for the 3+3 option. Other majors can be used to pursue the DPT, but students cannot apply until after completing their undergraduate degree and they, too, must meet all DPT admission criteria.

Requirements for the Physical Therapy 3+3 - Exercise Science (BS):

- Student must maintain a 3.0 or higher overall GPA.
- Student may not have more than one "W" in a required course in the 3+3 block.
- Student can only be in the 3+3 program for a maximum of three (3) years full-time continuous enrollment.
- Only Slippery Rock University students are eligible for this 3+3 option.

If any of these requirements are not met, the 3+3 designation will be removed from the student's record by the faculty advisor.

Highlights of the DPT Program at Slippery Rock University:

- Program is eight semesters in length, three academic years plus two summers.
- Strong foundation in basic sciences, including two semesters of cadaver anatomy, neuroscience, and pathophysiology.

- Three semesters of evidence-based practice coursework.
- Two semesters of clinical internships each one semester in length.
- Two shorter clinical education experiences.
- Success on state board examination exceeds state and national average.
- Opportunities for graduate assistantships.
- Dedicated PT building 45,000 square feet
- Accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE)

The curriculum requires each student to choose a facet of the profession to explore including one of the following areas service-learning, specialty care, administration, research or teaching.

### **Slippery Rock 3+3 Students Entering the Doctoral in Physical Therapy program**

Should 3+3 Physical Therapy students be unsuccessful in completing the 1st year (either Fall and/or Spring Semester) of the DPT program and want to complete their original undergraduate degree, it is solely up to the discretion of their undergraduate program coordinator to determine which, if any, physical therapy courses will count toward the completion of their undergraduate degree. In addition, students must complete any unfulfilled requirements of his/her undergraduate major.

## Requirements for the Major - Credits: 45

### Required Courses

#### Required Basic Courses - Credits: 21

- ERS 100 - Introduction to Exercise Science: Careers and Content Credits: 3
- ERS 101 - Applied Anatomy Credits: 3
- ERS 200 - Measurement and Statistical Application in Exercise Science Credits: 3
- ERS 201 - Exercise Physiology Credits: 3
- ERS 202 - Biomechanics Credits: 3
- ERS 301 - Exercise Leadership: Group Fitness Credits: 3
- ERS 302 - Exercise Leadership: Resistance Training Credits: 3

#### Required ES Upper Level Courses - Credits: 24

Note: Students must have achieved "Sufficient Academic Performance" to take these courses. Students must earn a "C" or better in all of the following courses.

- HLTH 424 - Nutrition and Exercise Credits: 3
- ERS 400 - Wellness Promotion and Programming Credits: 3
- ERS 401 - Fitness Assessment Credits: 3
- ERS 402 - Exercise Prescription Credits: 3
- ERS 403 - Advanced Exercise Physiology Credits: 3
- ERS 410 - Clinical Exercise Physiology Credits: 3
- ERS 411 - Exercise Science: Special Populations and Conditions Credits: 3
- ERS 412 - Exercise Science: Senior Synthesis Credits: 3

## College/Department Requirements (Liberal Studies) - Credits: 13

- BIOL 216 - Anatomy and Physiology/Lab Credits: 3

- BIOL 217 - Anatomy and Physiology/Lab Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- PHYS 201 - Elements of Physics I/ Lab Credits: 4

## SRU DPT Program Requirements - Credits: 12

- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- PHYS 202 - Elements of Physics II/ Lab Credits: 4

## Physical Therapy 3 + 3 - Safety Management (BS)

### Safety Management Department

The Safety Management Department offers a 3+3 option for students interested in a career in physical therapy. Undergraduate students work with their academic advisor to complete the courses needed to fulfill the requirements for both an undergraduate degree and the entrance requirements for the Doctor of Physical Therapy program.

The first year of the Doctor of Physical Therapy (DPT) program meets the requirements for the fourth year of the undergraduate degree. Approved undergraduate majors in Biology, Public Health, Therapeutic Recreation, and Exercise Science are also available for the 3+3 option. Other majors can be used to pursue the DPT, but students cannot apply until after completing their undergraduate degree and they, too, must meet all DPT admission criteria.

### Requirements for the Physical Therapy 3+3 - Safety Management (BS):

- Student must maintain a 3.0 or higher overall GPA.
- Student may not have more than one "W" in a required course in the 3+3 block.
- Student can only be in the 3+3 program for a maximum of three (3) years full-time continuous enrollment.
- Only Slippery Rock University student's are eligible for this 3+3 option.

If any of these requirements are not met, the 3+3 designation will be removed from the student's record by the faculty advisor.

### Highlights of the DPT Program at Slippery Rock University:

- Program is eight semesters in length, three academic years plus two summers.
- Strong foundation in basic sciences, including two semesters of cadaver anatomy, neuroscience, and pathophysiology.
- Three semesters of evidence-based practice coursework.
- Two semesters of clinical internships each one semester in length.
- Two shorter clinical education experiences.
- Success on state board examination exceeds state and national average.
- Opportunities for graduate assistantships.
- Dedicated PT building 45,000 square feet
- Accredited by the Commission on Accreditation of Physical Therapy Education (CAPTE)

The curriculum requires each student to choose a facet of the profession to explore including one of the following areas: service-learning, specialty care, administration, research or teaching.



### **Slippery Rock 3+3 Students Entering the Doctoral in Physical Therapy program**

Should 3+3 Physical Therapy students be unsuccessful in completing the 1st year (either Fall and/or Spring Semester) of the DPT program and want to complete their original undergraduate degree, it is solely up to the discretion of their undergraduate program coordinator to determine which, if any, physical therapy courses will count toward the completion of their undergraduate degree. In addition, students must complete any unfulfilled requirements of his/her undergraduate major. *Participation in the undergraduate commencement ceremony takes place after the first full year of Physical Therapy school is successfully completed.*

Contact the Department of Safety Management for the most current requirements.

## **Degree Completion in Six Years Safety Management (BS)**

### **Freshman Year - Total Hours: 30**

- Liberal Studies/Electives Credits: 12
- BIOL 216 - Anatomy and Physiology/Lab Credits: 3
- BIOL 217 - Anatomy and Physiology/Lab Credits: 3
- ENGL 102 - College Writing Credits: 3
- MATH 152 - Elementary Statistics I Credits: 3
- PSYC 105 - Introduction to Psychology Credits: 3
- SAFE 118 - Introduction to Safety Credits: 3

### **Sophomore Year - Total Hours: 29**

- Liberal Studies Credits: 6
- CHEM 107 - General Chemistry I Credits: 3
- CHEM 108 - General Chemistry II Credits: 3
- CHEM 111 - General Chemistry I Lab Credits: 1
- CHEM 112 - General Chemistry II Lab Credits: 1
- COMM 200 - Public Speaking Credits: 3
- ENGL 210 - Interpreting Literature Credits: 3
- SAFE 218 - Hazard Analysis and Legislative Compliance Credits: 3
- SAFE 338 - Ergonomics and Human Factors Credits: 3

### **One of the Following Courses - Credits: 3**

- PSYC 240 - Human Sexual Behavior Credits: 3
- PSYC 300 - Psychology of Gender Credits: 3
- PSYC 338 - Cognitive Psychology Credits: 3
- PSYC 344 - Developmental Psychology Credits: 3
- PSYC 377 - Social Psychology Credits: 3

### **Junior Year - Total Hours: 31**

- Liberal Studies/Electives Credits: 11
- PHYS 201 - Elements of Physics I/ Lab Credits: 4
- PHYS 202 - Elements of Physics II/ Lab Credits: 4

- SAFE 318 - Principles of Industrial Hygiene Credits: 3
- SAFE 328 - Comprehensive Emergency Management and Fire Services Credits: 3
- SAFE 368 - Injury and Damage Incidents Evaluation Credits: 3
- SAFE 448 - Management and Integration of Safety Credits: 3

## Senior Year

DEFINED BY THE DPT PROGRAM

# Pre-Physician Assistant Option

### Declaring the Pre-Physician Assistant Option at Slippery Rock University

Only first semester freshman are eligible for this program and must select this specialization *at the time of application*. Freshman whose first semester is in the spring term may select this specialization however, these freshman will be out of sequence for courses and thus may require more time to complete the prerequisite course work before making application the graduate program. Continuing students may not add this specialization.

Currently there are four (4) undergraduate majors you can select in preparation for this PA graduate program – Athletic Training; Biology, Exercise Science and Public Health.

### Pre-Physician Program Requirements

Students in the Pre-Physician Assistant specialization must complete all the major requirements for their selected degree and additional prerequisite courses required by Chatham University. The required pre-requisites include the following courses:

Principles of Biology with lab (BIOL 104)

Genetics with lab (BIOL 250)

Elementary Statistics (MATH 152)

General Chemistry I and II (CHEM 107 & 108; CHEM 111 & 112 – lab)

Anatomy and Physiology I and II (BIOL 216 & 217) with lab

Medical Microbiology or Microbiology (BIOL 210 or 330 which is for bio majors only)

Introduction to Psychology (PSYC 105)

Additional Psychology or Human Development course (PSYC 344)

Nutrition & Exercise (HLTH 424)

College Writing (ENGL 102)

Students must earn a B or higher in all of these required prerequisite courses. Student who earn less than a B in any course will be removed from the program. Students in the Pre-Physician Assistant specialization may not repeat any of these prerequisite courses nor transfer any of these courses.

Other program requirements include:

A cumulative GPA of 3.5 or better on a scale of 4.0 as calculated by the Centralized Application Service for Physician Assistants (CASPA). If a student drops below a 3.5 for any semester cumulative GPA, they will be removed from the program.

A cumulative science GPA of 3.4 or better as calculated by CASPA with a minimum of 18 science credits. If the science GPA drops below a 3.4, students will be removed from the program.

Maintenance of a good citizenship record.

Successful completion of all Chatham University's MPAS program admissions requirements.

In the event that students become ineligible for the program for any reason, they will be notified in writing.

### **Application Procedure**

The two students who will be granted the two (2) guaranteed seats in the Chatham University Physician Assistant Program will be selected by a committee of Slippery Rock Faculty. Students will make application to both the SRU Physician Assistant Selection Committee and Chatham University's MPAS program. The committee will notify Chatham of the selected students. Application to the SRU Physician Assistant Selection Committee is not a guarantee that the student will be granted a seat at Chatham University. Students who are not selected by the SRU Physician Assistant Selection Committee still have the option to apply independently. Any student who wishes to apply whether in the Pre-Physician specialization or not may do so independently as well and compete in the general pool of applicants for seats in the Program.

## **College of Humanities, Fine and Performing Arts**

104 Strain Behavioral Science Building  
724-738-4863

### **Dean**

Eva Tsuquiashi-Daddesio

### **Assistant to the Dean**

Jennifer Keller

### **Administrative Assistant**

Karen Hogg

### **Secretary**

Amy McCamey

## **Departments**

Art  
Dance  
English  
History  
Modern Languages and Cultures  
Music  
Philosophy  
Political Science  
Theatre

## **Interdisciplinary Programs and Activities**

Asian Studies  
Frederick Douglass Institute  
Honors  
Kaleidoscope Arts Festival  
Old Stone House  
Pre-Law Program  
Women's Studies

The College of Humanities, Fine and Performing Arts features baccalaureate degrees, programs, and courses that acquaint students with fields of knowledge and intellectual skills vital for the function of a free society. Students encounter a broad range of questions and ideas focusing on human responses to moral, historical, aesthetic, creative and philosophical problems.

At the forefront of interdisciplinary studies, the college offers interdisciplinary minors in Asian Studies, English, Modern Languages, Philosophy, and Women's Studies, as well as a program in Pre-Law. The arts are signature programs at the university with the department of Art, Dance, Music and Theatre holding national accreditation. All departments in the college incorporate valuable service-learning, field experience, internships, study-abroad opportunities and co-curricular activities in recognition that substantial learning takes place both inside and outside the classroom. With strong ties to the Slippery Rock and surrounding communities, the college is host to significant cultural institutions including the 1822 Old Stone House, the Kaleidoscope Arts Festival, the Martha Gault Gallery, and SLAB (the Sound and Literary Art Book). Home of the Frederick Douglass Institute, the college is dedicated to the advancement of campus diversity, multicultural studies and civic engagement through yearly workshops, visiting scholars/artists, exhibits, and educational trips.

## **Honors**

158 North Hall Welcome Center  
724-738-4003

### **Director**

Brad Wilson

### **Secretary**

Connie Schmidt

Slippery Rock University's Honors Program is designed to enrich the university experience by fostering a student-centered learning environment and helping each student develop her or his individual potential as a life-long learner. Designed to encourage critical thinking and communication skills, honors courses emphasize reading, writing and research and encourage students to assume responsibility for their learning experiences, both on and off campus, through discussion-based classes and by participating in service-learning opportunities. Students in the program

develop as scholars, but they are also committed to taking full advantage of their years spent at Slippery Rock University by participating in the extra-curricular and travel opportunities which the program offers.

All honors courses fulfill liberal studies requirements, which means that participation in the program will not extend a student's stay at Slippery Rock University. To graduate with an honors designation, students must complete a minimum of seven honors courses (21 credits) while maintaining an overall GPA of 3.25 or higher or 3.4 or higher if the student has an Honors scholarship. Students may select from a variety of specially-designed courses in the following departments: communication, english, political science, history, mathematics, music, philosophy, biology, chemistry, geography, geology, environmental science, and professional studies.

Students also have the opportunity to take Great Books courses, which are geared toward extensive reading in a specialized area, and typically involve international travel. Content in these seminars varies from semester to semester and have included, War and Peace (Russia), The Holocaust (Germany), Latin American History (Panama), Galileo (Florence), and Irish Playwrights (Ireland). Because a research is a component of this course, the Great Books course is especially valuable for students contemplating graduate education.

Honors students enjoy a number of benefits, both in and out of the classroom, including seminar-style classrooms where enrollment is capped at 20 or 25 students per class; early registration privileges, and learning experiences through national and international travel opportunities. Every fall, Honors Program students present their research at the National Collegiate Honors Council (NCHC) conference in cities like Boston, Phoenix, Washington D.C., Denver, San Antonino, Chicago, and Los Angeles. In addition, courses are offered every spring and summer, which include opportunities for travel abroad. In the past, students have traveled to London, Germany, Turkey, South Africa, Mexico and Ecuador.

The program is open to all qualified students, regardless of their major field of interest. Interested students must enroll formally by completing an application and submitting a two-page, typed essay in which they discuss what they hope to gain from their university experience. If you are interested in participating, please call 724-738-4003, e-mail [honorsprogram@sru.edu](mailto:honorsprogram@sru.edu), or visit the Honors Program Web Site

## **Art**

Art Building I  
724-738-2020

### **Art**

Students who major in art will develop the capacity to make tangible their aesthetic responses to experience. By increasing awareness of themselves, their environment and their culture, and by learning to think and act creatively, students prepare themselves for a life enriched through art. The broadly based Bachelor of Arts program with a concentration in art provides a diversified background suitable to generalist applications and an excellent foundation for further study in various disciplines. The Bachelor of Fine Arts degree program is for students interested in art as a profession. It is an intensive program of study aimed at developing a foundation of attitudes, traits and abilities with which to begin a lifetime as an artist. Emphasis is placed on students' personal experiences as the source of artistic motivation. The broadly based liberal studies curriculum provides students with a diversified background, which, in concert with their professional training, should lead to a successful career in art and applied vocations.

### **Chair**

Thomas Como

### **Secretary**

Christine Byrd

**Faculty**

Thomas Como, June Edwards, Heather Hertel, Sean Macmillan, Katherine Mickle, Kurt Pitluga, Jon Shumway, Barbara Westman, Richard Wukich

*“The encouragement and support I received from the faculty and students in the Art Department at Slippery Rock University enabled me to gain the confidence to make it as a professional artist. The instruction I received provided both a practical and philosophic foundation that continues to contribute to my success as artist and teacher.”*

**John Greco**  
**BA '76**  
**Professor of Art**  
**Santa Monica College**

*“Being creative and skilled are the keys to surviving in today’s fast paced environment. The experience in the Art Department at Slippery Rock University prepared me to succeed in graduate school and in my professional career where constant change challenges all assumptions.”*

**Dalton Good**  
**BFA '81**  
**Director of Publications**  
**Point Park College**

The Art Department sponsors an overnight trip to visit galleries and museums in Boston, Philadelphia, Toronto, New York, Washington or Chicago each semester. Faculty organize day trips to exhibits in Cleveland and Pittsburgh several times each term. The department has developed exchange programs with excellent art schools in Europe and Costa Rica to provide students with the opportunity for an international experience. Students have the opportunity to spend a semester studying and traveling in Europe or Costa Rica, experiencing different cultures. More than 100 students have participated in these exchanges.

Art faculty periodically take students to various professional society meetings such as the National Society for Education in Ceramic Arts, International Sculpture Society and Southern Graphics Society annual meetings. At these meetings students meet and get to know professionals in their field. They have an opportunity to attend lectures and demonstrations on the latest techniques being developed.

Each term, in our master studio program, the Art Department has visiting artists come to campus for workshops, lectures and critiques of student work. This program enables the student to know and experience the broadest possibilities in their own work.

Each year, the final exhibition in the campus gallery is devoted to an exhibit of student art. For this show, an invited juror judges the show, awarding prizes and scholarships for the coming year.

Students may elect to do an internship in their junior or senior year. Internships allow the student to sharpen skills learned in the classroom in a professional, working atmosphere. Students complete internships in various museums and galleries, and in photography, architectural, ceramic and graphic design studios. While interning, students gain a working knowledge in their chosen field, make contacts with professional artists, and learn to use the ideas and techniques practiced in the classroom.

The Art Club organizes field trips to special art exhibitions, raises monies for entry fees to local art exhibitions and sponsors exhibitions of their work to show in local galleries.

## **Art (BA)**

## Requirements for the Major - Credits: 39

Required: 9 credits of a modern language or competency at the 103 level

### Required Courses

#### Required Art History - Credits: 3

- ART 225 - Overview of Western Art Credits: 3

#### Art History Elective - 3 credits

Pre-requisite: ART 225

- ART 325 - North American Art History Credits: 3-6
- ART 335 - The Renaissance Tradition Credits: 3-6
- ART 345 - Foundations of Modern Art Credits: 3-6
- ART 355 - Early Modern Art Credits: 3-6
- ART 365 - Art Since 1945 Credits: 3-6

#### Studio Courses - Credits: 33

##### Required Course - 3 credits

- ART 105 - Basic Studio Drawing Credits: 3

##### 3 Credits From:

- ART 100 - 2-D Design Credits: 3
- ART 101 - 3-D Design Credits: 3

##### 3 Credits From:

- ART 106 - Basic Studio Painting Credits: 3
- ART 107 - Basic Studio Photography Credits: 3
- ART 108 - Basic Studio Printmaking Credits: 3
- ART 109 - Basic Studio Metalsmithing Credits: 3
- ART 110 - Basic Studio Sculpture Credits: 3
- ART 111 - Basic Studio Fibers Credits: 3
- ART 112 - Basic Studio Ceramics Credits: 3
- ART 114 - Basic Studio Digital Media Credits: 3

##### 2D Elective - 3 credits

Pre-requisite: 3 credits from any 100 level studio course; can repeat any course twice

- ART 205 - Art Synthesis Drawing Credits: 3
- ART 206 - Art Synthesis Painting Credits: 3
- ART 207 - Art Synthesis Photography Credits: 3
- ART 208 - Art Synthesis Printmaking Credits: 3
- ART 213 - Art Synthesis Design Credits: 3
- ART 214 - Art Synthesis Digital Media Credits: 3

### 3D Elective - 3 credits

Pre-requisite: 3 credits from any 100 level studio; can repeat any course twice

- ART 209 - Art Synthesis Metalsmithing Credits: 3
- ART 210 - Art Synthesis Sculpture Credits: 3
- ART 211 - Art Synthesis Fibers Credits: 3
- ART 212 - Art Synthesis Ceramics Credits: 3

### 9 Credits Selected From:

Pre-requisite: 6 credits from any 200 level studio; can repeat any class twice.

- ART 305 - Advanced Studio Drawing Credits: 3
- ART 306 - Advanced Studio Painting Credits: 3
- ART 307 - Advanced Studio Photography Credits: 3
- ART 308 - Advanced Studio Printmaking Credits: 3
- ART 309 - Advanced Studio Metalsmithing Credits: 3
- ART 310 - Advanced Studio Sculpture Credits: 3
- ART 311 - Advanced Studio Fibers Credits: 3
- ART 312 - Advanced Studio Ceramics Credits: 3
- ART 313 - Advanced Studio Design Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3

### 9 Credits Selected From:

Pre-requisite: 6 credits from any 300 level studio; can repeat any class twice

- ART 405 - Senior Studio Drawing Credits: 3
- ART 406 - Senior Studio Painting Credits: 3
- ART 407 - Senior Studio Photography Credits: 3
- ART 408 - Senior Studio Printmaking Credits: 3
- ART 409 - Senior Studio Metalsmithing Credits: 3
- ART 410 - Senior Studio Sculpture Credits: 3
- ART 411 - Senior Studio Fibers Credits: 3
- ART 412 - Senior Studio Ceramics Credits: 3
- ART 413 - Senior Studio Design Credits: 3
- ART 414 - Senior Studio Digital Media Credits: 3

## **Art (BFA)**



Art Department

## Requirements for the Major - Credits: 78

### Required Art Courses - 18 credits

- ART 100 - 2-D Design Credits: 3
- ART 101 - 3-D Design Credits: 3
- ART 105 - Basic Studio Drawing Credits: 3
- ART 225 - Overview of Western Art Credits: 3
- ART 226 - Overview of World Art Credits: 3
- ART 300 - Art Seminar Credits: 3

### Electives - 6 credits:

Choose two of the following:

- ART 325 - North American Art History Credits: 3-6
- ART 335 - The Renaissance Tradition Credits: 3-6
- ART 345 - Foundations of Modern Art Credits: 3-6
- ART 355 - Early Modern Art Credits: 3-6
- ART 365 - Art Since 1945 Credits: 3-6
- ART 420 - Art History Seminar Credits: 3-6

### Electives - Credits: 9

Choose three from the following. No class may be repeated.

- ART 106 - Basic Studio Painting Credits: 3
- ART 107 - Basic Studio Photography Credits: 3
- ART 108 - Basic Studio Printmaking Credits: 3
- ART 109 - Basic Studio Metalsmithing Credits: 3
- ART 110 - Basic Studio Sculpture Credits: 3
- ART 111 - Basic Studio Fibers Credits: 3
- ART 112 - Basic Studio Ceramics Credits: 3
- ART 114 - Basic Studio Digital Media Credits: 3

### Electives - Credits: 12

Choose twelve credits from the following. Pre-requisite is any 100 level studio. Can repeat any class twice.

- ART 205 - Art Synthesis Drawing Credits: 3
- ART 206 - Art Synthesis Painting Credits: 3
- ART 207 - Art Synthesis Photography Credits: 3
- ART 208 - Art Synthesis Printmaking Credits: 3
- ART 209 - Art Synthesis Metalsmithing Credits: 3
- ART 210 - Art Synthesis Sculpture Credits: 3

- ART 211 - Art Synthesis Fibers Credits: 3
- ART 212 - Art Synthesis Ceramics Credits: 3
- ART 213 - Art Synthesis Design Credits: 3
- ART 214 - Art Synthesis Digital Media Credits: 3

## Electives - Credits: 12

Choose 12 credits from the following. Pre-requisite is from any 200 level studio. Can repeat any class three times.

- ART 305 - Advanced Studio Drawing Credits: 3
- ART 306 - Advanced Studio Painting Credits: 3
- ART 307 - Advanced Studio Photography Credits: 3
- ART 308 - Advanced Studio Printmaking Credits: 3
- ART 309 - Advanced Studio Metalsmithing Credits: 3
- ART 310 - Advanced Studio Sculpture Credits: 3
- ART 311 - Advanced Studio Fibers Credits: 3
- ART 312 - Advanced Studio Ceramics Credits: 3
- ART 313 - Advanced Studio Design Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3

## Electives - Credits: 9

Choose 9 credits from the following. Pre-requisite is 6 credits from any 300 level studio; can repeat any class twice.

- ART 405 - Senior Studio Drawing Credits: 3
- ART 406 - Senior Studio Painting Credits: 3
- ART 407 - Senior Studio Photography Credits: 3
- ART 408 - Senior Studio Printmaking Credits: 3
- ART 409 - Senior Studio Metalsmithing Credits: 3
- ART 410 - Senior Studio Sculpture Credits: 3
- ART 411 - Senior Studio Fibers Credits: 3
- ART 412 - Senior Studio Ceramics Credits: 3
- ART 413 - Senior Studio Design Credits: 3
- ART 414 - Senior Studio Digital Media Credits: 3

## Senior Project - Credits: 3

Senior Project pre-requisite: any 400 level studio.; by permission of instructor.

Choose one of the following:

- ART 425 - Senior Project Drawing Credits: 3
- ART 426 - Senior Project Painting Credits: 3
- ART 427 - Senior Project Photography Credits: 3
- ART 428 - Senior Project Printmaking Credits: 3
- ART 429 - Senior Project Metalsmithing Credits: 3
- ART 430 - Senior Project Sculpture Credits: 3
- ART 431 - Senior Project Fibers Credits: 3

- ART 432 - Senior Project Ceramics Credits: 3
- ART 433 - Senior Project Design Credits: 3
- ART 434 - Senior Project Digital Media Credits: 3

## Electives - Credits: 9

Choose 9 credits from any Art course selections at the 300/400 level

# **Art (BFA) - Teacher Certification in Conjunction with Carlow University**

Art Department

## Requirements for the Major - Credits: 78

### Required Art Courses - 18 credits

- ART 100 - 2-D Design Credits: 3
- ART 101 - 3-D Design Credits: 3
- ART 105 - Basic Studio Drawing Credits: 3
- ART 225 - Overview of Western Art Credits: 3
- ART 226 - Overview of World Art Credits: 3
- ART 300 - Art Seminar Credits: 3

## Elective - Credits: 6

Choose two of the following:

- ART 325 - North American Art History Credits: 3-6
- ART 335 - The Renaissance Tradition Credits: 3-6
- ART 345 - Foundations of Modern Art Credits: 3-6
- ART 355 - Early Modern Art Credits: 3-6
- ART 365 - Art Since 1945 Credits: 3-6
- ART 420 - Art History Seminar Credits: 3-6

## Elective - Credits: 9

Choose three from the following. No class may be repeated.

- ART 106 - Basic Studio Painting Credits: 3
- ART 107 - Basic Studio Photography Credits: 3
- ART 108 - Basic Studio Printmaking Credits: 3
- ART 109 - Basic Studio Metalsmithing Credits: 3
- ART 110 - Basic Studio Sculpture Credits: 3
- ART 111 - Basic Studio Fibers Credits: 3
- ART 112 - Basic Studio Ceramics Credits: 3

- ART 114 - Basic Studio Digital Media Credits: 3

## Elective - Credits: 12

Choose twelve credits from the following. Pre-requisite is any 100-level studio. Can repeat any class twice.

- ART 205 - Art Synthesis Drawing Credits: 3
- ART 206 - Art Synthesis Painting Credits: 3
- ART 207 - Art Synthesis Photography Credits: 3
- ART 208 - Art Synthesis Printmaking Credits: 3
- ART 209 - Art Synthesis Metalsmithing Credits: 3
- ART 210 - Art Synthesis Sculpture Credits: 3
- ART 211 - Art Synthesis Fibers Credits: 3
- ART 212 - Art Synthesis Ceramics Credits: 3
- ART 213 - Art Synthesis Design Credits: 3
- ART 214 - Art Synthesis Digital Media Credits: 3

## Elective - Credits: 12

Choose 12 credits from the following. Pre-requisite (6 credits) from any 200 level studio. Can repeat any class three times.

- ART 305 - Advanced Studio Drawing Credits: 3
- ART 306 - Advanced Studio Painting Credits: 3
- ART 307 - Advanced Studio Photography Credits: 3
- ART 308 - Advanced Studio Printmaking Credits: 3
- ART 309 - Advanced Studio Metalsmithing Credits: 3
- ART 310 - Advanced Studio Sculpture Credits: 3
- ART 311 - Advanced Studio Fibers Credits: 3
- ART 312 - Advanced Studio Ceramics Credits: 3
- ART 313 - Advanced Studio Design Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3

## Elective - Credits: 9

Choose 9 credits from the following. Pre-requisite (6 credits) from any 300 level studio; can repeat any class twice.

- ART 405 - Senior Studio Drawing Credits: 3
- ART 406 - Senior Studio Painting Credits: 3
- ART 407 - Senior Studio Photography Credits: 3
- ART 408 - Senior Studio Printmaking Credits: 3
- ART 409 - Senior Studio Metalsmithing Credits: 3
- ART 410 - Senior Studio Sculpture Credits: 3
- ART 411 - Senior Studio Fibers Credits: 3
- ART 412 - Senior Studio Ceramics Credits: 3
- ART 413 - Senior Studio Design Credits: 3
- ART 414 - Senior Studio Digital Media Credits: 3

## Senior Project - Credits: 3

Senior Project prerequisite: any 400 level studio; by permission of instructor.

Choose one of the following:

- ART 425 - Senior Project Drawing Credits: 3
- ART 426 - Senior Project Painting Credits: 3
- ART 427 - Senior Project Photography Credits: 3
- ART 428 - Senior Project Printmaking Credits: 3
- ART 429 - Senior Project Metalsmithing Credits: 3
- ART 430 - Senior Project Sculpture Credits: 3
- ART 431 - Senior Project Fibers Credits: 3
- ART 432 - Senior Project Ceramics Credits: 3
- ART 433 - Senior Project Design Credits: 3
- ART 434 - Senior Project Digital Media Credits: 3

## Electives - Credits: 9

- Art Elective - Credits: 3 Choose from any 300/400 level art class
- AE 327 - Methods & Materials for Secondary Art - Credits: 4 (only offered at Carlow University in the spring or summer semesters)
- ART 317 - Advanced Topics in Elementary Art Credits: 3  
Only offered in the fall semester

## Education Courses - Credits: 9

Three additional courses are required before graduation

- CDEV 248 - Human Development and Education Credits: 3
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 342 - Educational Psychology for Diverse Learners Credits: 3

## Special Education Courses

Three additional Special Education courses are required before graduation

- SPED 121 - High Incidence Disabilities Credits: 3
- SPED 325 - Interventions in the Inclusive Classroom Credits: 3
- SPED 430 - Positive Behavior Strategies Credits: 3

## Certification Through Carlow University

Total of one semester, 12 credits: tuition is at Carlow University prices.

- AE 409 - Elementary Art Student Teaching - Credits: 6
- AE 410 - Secondary Art Student Teaching - Credits: 6

## **Minor in Art**

Art Department

## General Art Track - 21 Credits

12 Credits are at the 300+ level (200 level courses with prerequisites qualify as upper level)

### Choose One Basic Studio 2-D Emphasis

- ART 105 - Basic Studio Drawing Credits: 3
- ART 106 - Basic Studio Painting Credits: 3
- ART 107 - Basic Studio Photography Credits: 3
- ART 108 - Basic Studio Printmaking Credits: 3
- ART 114 - Basic Studio Digital Media Credits: 3

### Choose One Basic Studio 3-D Emphasis

- ART 109 - Basic Studio Metalsmithing Credits: 3
- ART 110 - Basic Studio Sculpture Credits: 3
- ART 111 - Basic Studio Fibers Credits: 3
- ART 112 - Basic Studio Ceramics Credits: 3

### Choose One Art History Course:

- ART 225 - Overview of Western Art Credits: 3
- ART 226 - Overview of World Art Credits: 3
- ART 325 - North American Art History Credits: 3-6
- ART 335 - The Renaissance Tradition Credits: 3-6
- ART 345 - Foundations of Modern Art Credits: 3-6
- ART 355 - Early Modern Art Credits: 3-6
- ART 365 - Art Since 1945 Credits: 3-6
- ART 420 - Art History Seminar Credits: 3-6

## Two Semesters of Art Synthesis Courses - 6 credits

Prerequisite: 3 credits from any 100 level studio

- ART 205 - Art Synthesis Drawing Credits: 3
- ART 206 - Art Synthesis Painting Credits: 3
- ART 207 - Art Synthesis Photography Credits: 3
- ART 208 - Art Synthesis Printmaking Credits: 3
- ART 209 - Art Synthesis Metalsmithing Credits: 3
- ART 210 - Art Synthesis Sculpture Credits: 3
- ART 211 - Art Synthesis Fibers Credits: 3
- ART 212 - Art Synthesis Ceramics Credits: 3
- ART 213 - Art Synthesis Design Credits: 3

- ART 214 - Art Synthesis Digital Media Credits: 3

## Two Semesters of Advanced Studio Courses - 6 credits

Prerequisite: 3 credits from any 200 level studio

- ART 305 - Advanced Studio Drawing Credits: 3
- ART 306 - Advanced Studio Painting Credits: 3
- ART 307 - Advanced Studio Photography Credits: 3
- ART 308 - Advanced Studio Printmaking Credits: 3
- ART 309 - Advanced Studio Metalsmithing Credits: 3
- ART 310 - Advanced Studio Sculpture Credits: 3
- ART 311 - Advanced Studio Fibers Credits: 3
- ART 312 - Advanced Studio Ceramics Credits: 3
- ART 313 - Advanced Studio Design Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3

## Graphic Design Track - 21 Credits

12 credits are at the 300+ level (200 level courses with prerequisites qualify as upper level)

### Basic Studio Level Courses:

- ART 100 - 2-D Design Credits: 3
- ART 107 - Basic Studio Photography Credits: 3
- ART 114 - Basic Studio Digital Media Credits: 3

### One Semester of Art Synthesis:

- ART 205 - Art Synthesis Drawing Credits: 3

## Two Semesters of Advanced Studio Courses - 6 credits

- ART 313 - Advanced Studio Design Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3

### Choose One Senior Studio Course:

- ART 405 - Senior Studio Drawing Credits: 3
- ART 406 - Senior Studio Painting Credits: 3
- ART 407 - Senior Studio Photography Credits: 3
- ART 408 - Senior Studio Printmaking Credits: 3
- ART 413 - Senior Studio Design Credits: 3
- ART 414 - Senior Studio Digital Media Credits: 3

### Other Recommended Courses:

- ART 208 - Art Synthesis Printmaking Credits: 3  
(Enrichment Course)
- ART 225 - Overview of Western Art Credits: 3  
(Goal Course)
- ART 226 - Overview of World Art Credits: 3  
(Goal Course)

## **Minor in Art - Graphic Design Track for Communications Majors**

Art Department

12 credits are at the 300+ level (200 level courses with prerequisites qualify as upper level)

### **Requirements for the Minor - Credits: 21**

#### **Three Semesters of Basic Studio**

- ART 100 - 2-D Design Credits: 3
- ART 107 - Basic Studio Photography Credits: 3
- ART 114 - Basic Studio Digital Media Credits: 3

#### **One Semester of Art Synthesis**

- ART 205 - Art Synthesis Drawing Credits: 3

#### **Two Semesters of Advanced Studio**

- ART 313 - Advanced Studio Design Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3

#### **One Semester of Senior Studio**

Choose one of the following:

- ART 405 - Senior Studio Drawing Credits: 3
- ART 406 - Senior Studio Painting Credits: 3
- ART 407 - Senior Studio Photography Credits: 3
- ART 408 - Senior Studio Printmaking Credits: 3
- ART 413 - Senior Studio Design Credits: 3
- ART 414 - Senior Studio Digital Media Credits: 3

#### **Other Recommended Courses**

Recommended to fill Liberal Studies requirements:

- ART 208 - Art Synthesis Printmaking Credits: 3



- ART 225 - Overview of Western Art Credits: 3
- ART 226 - Overview of World Art Credits: 3

## **Minor in Art for Elementary Education Majors**

Art Department

### **Requirements for the Minor - Credits: 21**

#### **Required Courses**

- ART 105 - Basic Studio Drawing Credits: 3
- ART 225 - Overview of Western Art Credits: 3
- ART 317 - Advanced Topics in Elementary Art Credits: 3

#### **3 Credits Selected From:**

- ART 106 - Basic Studio Painting Credits: 3
- ART 107 - Basic Studio Photography Credits: 3
- ART 108 - Basic Studio Printmaking Credits: 3
- ART 114 - Basic Studio Digital Media Credits: 3

#### **3 Credits Selected From:**

- ART 109 - Basic Studio Metalsmithing Credits: 3
- ART 110 - Basic Studio Sculpture Credits: 3
- ART 111 - Basic Studio Fibers Credits: 3
- ART 112 - Basic Studio Ceramics Credits: 3

#### **3 Credits Selected From:**

- ART 205 - Art Synthesis Drawing Credits: 3
- ART 206 - Art Synthesis Painting Credits: 3
- ART 207 - Art Synthesis Photography Credits: 3
- ART 208 - Art Synthesis Printmaking Credits: 3
- ART 209 - Art Synthesis Metalsmithing Credits: 3
- ART 210 - Art Synthesis Sculpture Credits: 3
- ART 211 - Art Synthesis Fibers Credits: 3
- ART 212 - Art Synthesis Ceramics Credits: 3
- ART 213 - Art Synthesis Design Credits: 3
- ART 214 - Art Synthesis Digital Media Credits: 3

#### **3 Credits Selected From:**

- ART 305 - Advanced Studio Drawing Credits: 3

- ART 306 - Advanced Studio Painting Credits: 3
- ART 307 - Advanced Studio Photography Credits: 3
- ART 308 - Advanced Studio Printmaking Credits: 3
- ART 309 - Advanced Studio Metalsmithing Credits: 3
- ART 310 - Advanced Studio Sculpture Credits: 3
- ART 311 - Advanced Studio Fibers Credits: 3
- ART 312 - Advanced Studio Ceramics Credits: 3
- ART 313 - Advanced Studio Design Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3

## Minor in Art History

Art Department

Requirements for the Minor - Credits: 18

### Required Courses

- ART 225 - Overview of Western Art Credits: 3
- ART 226 - Overview of World Art Credits: 3

### Elective Courses

12credits selected from:

- ART 325 - North American Art History Credits: 3-6
- ART 335 - The Renaissance Tradition Credits: 3-6
- ART 345 - Foundations of Modern Art Credits: 3-6
- ART 355 - Early Modern Art Credits: 3-6
- ART 365 - Art Since 1945 Credits: 3-6
- ART 420 - Art History Seminar Credits: 3-6

## Asian Studies

### Asian Studies

#### Coordinator

George Brown, SWC 112-C, (724) 738-2345, [george.brown@sru.edu](mailto:george.brown@sru.edu)

#### Faculty

Kundan Bhatia, George Brown, Xianfeng Chen, Margaret Denning, Srinivasa Mani, Alison McNeal, J. Sunita Peacock, Armand Policicchio, Carolyn Prorok, Jialing Wang, Junko Yamamoto, and visiting professors from China, India, Japan, and Korea.

The Asian Studies Minor and Program at Slippery Rock University offers students the opportunity to learn about Asian cultures, history, geography, politics and languages, and supports study abroad programs in China, Japan, Korea, and India. The Asian Studies Program is an interdisciplinary program that includes courses and faculty from several disciplines, including Asian Studies, Modern Languages and Cultures

(Chinese, Japanese and Korean languages), History, Geography, Political Science, English, Philosophy and Anthropology (Professional Studies). The Asian Studies Program seeks to prepare students to understand a region that includes some of the oldest civilizations on our planet, the world's second and third largest economies (Japan and China), and 60% percent of the global population. For more information go to Asian Studies Program.

## Dance

110 Morrow Field House  
724-738-2036

### Dance

The Department of Dance at Slippery Rock University promotes dance as an art form through the creative, technical, expressive and intellectual development of each student. The dance faculty members offer personalized attention to each individual. Superior educational experiences in performance, choreography, and teaching, with additional components of wellness for dancers and dance technology, will prepare students for their chosen profession and role in society.

### Chair

Nora Ambrosio

### Secretary

Lisa Smith

### Staff Musician

Andrew Hasenpflug

### Faculty

Nora Ambrosio, Thom Cobb, Jennifer Keller, Nola Nolen-Holland, Jaya Mani, Ursula Payne, Melissa Teodoro

*“My dance experience and education at Slippery Rock University was a well rounded and exciting one. My education enabled me to become an artist-in-residence in the public schools and develop my own dance company and dance studio in my hometown. I was able to have not only a great dance education but also a great opportunity to perform, travel and learn how to become an individual that can stand out from the rest. I am proud to represent SRU as an accomplished alumnus and recommend their dance program to all of my students. The faculty was and is always encouraging and supportive of me. I look forward to visiting and seeing the program grow each year.”*

Anna Pishner '94

Owner and operator of Anna's Expressions of Dance  
in Clarksburg, WV, and  
Artistic Director of Allegro Dance Company

Slippery Rock University Dance Theater and the Jazz Dance/Tap Ensemble are the dance companies in residence at SRU. These companies perform many concerts throughout the year, both on and off campus. The department is a member of the American College Dance Festival and travels to these regional festivals every year. The department participates in the PA State Association for Health, Physical Education, Recreation, and Dance Conference and the Eastern District Association Conference. The department touring company, The Rock Dance company, performs many lecture/demonstrations at area and regional elementary schools, senior centers and other locations. Dance majors have also traveled to Europe where they have performed in Lyon, France and London, England. The department also has a Dance in India program, where dance majors study and teach in India. The dance honor society, Sigma Rho Delta, is opened to dance majors who meet the membership criteria. Outstanding guest artists are brought to campus each

semester to provide residency activities for students. The department also commissions new choreographic works from nationally and internationally known artists, as well as historic works biennially.

The department offers a 3 to 9-credit internship as an elective. Recent internships have included working in arts administration with a professional modern dance company, apprenticing with a professional ballet company as a costume design assistant, doing public relations for major dance venues in Washington D.C., and working at major dance centers in New York City.

The Department of Dance is an accredited member of the National Association of Schools of Dance and the only Dance Department in the State System of Higher Education.

## **Dance (BA)**

Dance Department

GPA requirements:

- 3.0 in major
- 2.7 overall

### **Requirements for the Major**

#### **Core Courses - Credits: 38**

- DANC 100 - Introduction to Dance Credits: 3
- DANC 101 - Wellness for Dancers Credits: 3
- DANC 199 - LMA/Performance Techniques Credits: 2
- DANC 200 - Dance Composition I Credits: 3
- DANC 216 - Principles of Dance Production Credits: 3
- DANC 223 - Creative Dance for Children Credits: 2
- DANC 224 - Improvisation Credits: 2
- DANC 323 - Teaching of Dance Credits: 3
- DANC 324 - Music for Dance Credits: 3
- DANC 326 - Dance Kinesiology Credits: 3
- DANC 350 - Field Experience in Dance Technique Credits: 1
- DANC 419 - Dance History II: Twentieth and Twenty-first Centuries Credits: 3
- DANC 420 - Modern Dance Technique: Level IV Credits: 2
- DANC 425 - Senior Synthesis Credits: 3
- DANC 498 - Selected Topics Credits: 1-3

#### **Additional Core Requirements - Credits: 3-4**

Students must select from Group 1, Group 2, or Group 3

#### **Group 1: Dance Theory and Practice (Technique)**

Select two of the following courses totaling 4 credits bringing your total major credits to 42 for a BA in Dance.

- DANC 321 - Ballet III Credits: 2
- DANC 322 - Jazz III Credits: 2
- DANC 424 - Contemporary Partnering Credits: 2

## Group 2: Composition and Technology

Select one of the following courses totaling 3 credits bringing your total major credits to 41 for a BA in Dance.

- DANC 271 - Dance Technology Credits: 3
- DANC 300 - Dance Composition II Credits: 3

## Group 3: Social and Historical Perspectives

Select one of the following courses totaling 3 credits bringing your total major credits to 41 for a BA in Dance.

- DANC 305 - Society and Social Dance Credits: 3
- DANC 318 - Dance History I: Through the Nineteenth Century Credits: 3

## Electives

- DANC 299 - Dance Rehearsal & Production Credits: 1
- DANC 499 - Dance Rehearsal & Production Credits: 1

## Dance Theory - Practice: Competency Based Requirements

Competency-based assessment constitutes the specification of knowledge, physical ability (technique) and proficiency. The application and synthesis of practice and theory competencies are required for employment in the dance field. The assessments developed by the dance faculty are flexible which allows the department to meet the changing demands of the dance field. In addition to successful completion of all Dance Core Courses, (including proficiency to Modern Dance IV), candidates for the Bachelor of Arts Degree in Dance from Slippery Rock university are required to demonstrate technical proficiency as indicated below:

- Modern Dance (Level IV Proficiency)
- Ballet (Level III Proficiency)
- Jazz (Level III Proficiency)

Demonstrated achievement of Level III technical proficiency in Ballet and Jazz will be determined by performance-based assessment of candidates for the BA Degree in Dance from Slippery Rock University by members of the dance faculty.

## Minor in Dance

Dance Department

## Requirements for the Minor - Credits: 26

2.7 GPA is required in dance minor courses.

All Dance minors are required to demonstrate proficiency at Level II of the following 3 techniques: Modern Dance, Ballet and Jazz. Dance minors are encouraged to continue their study of dance by taking Level III - VI technique courses. Level I technique classes may be required of some Dance Minors which can be counted for SRU Liberal Studies requirement.

**ALL DANCE MINORS MUST TAKE DANCE KINESIOLOGY (DANC 326) AS A PREREQUISITE PRIOR TO ENROLLING IN TEACHING OF DANCE (DANC 323) UNLESS IT IS WAIVED OR A COURSE SUBSTITUTION FORM IS COMPLETED AND APPROVED.**

## Required Courses

Level I technique classes in Modern Dance, Ballet and Jazz may be required of some Dance Minors and can be included in the SRU Liberal Studies requirement, enrichment block.

- DANC 100 - Introduction to Dance Credits: 3
- DANC 101 - Wellness for Dancers Credits: 3
- DANC 105 - Dance Fundamentals Credits: 2
- DANC 200 - Dance Composition I Credits: 3
- DANC 223 - Creative Dance for Children Credits: 2
- DANC 224 - Improvisation Credits: 2
- DANC 305 - Society and Social Dance Credits: 3
- DANC 323 - Teaching of Dance Credits: 3  
CONCURRENT WITH
- DANC 350 - Field Experience in Dance Technique Credits: 1

Select two of the following three technique courses:

- DANC 220 - Modern Dance Technique: Level II Credits: 2
- DANC 221 - Ballet II Credits: 2
- DANC 222 - Jazz Dance II Credits: 2

## English

314 Spotts World Culture Building  
724-738-2043

English

### **Chair**

Jace Condravy

### **Assistant Chair**

Erica Scott

### **Secretarial Staff**

Catherine Saylor

Robin Mowry

### **Faculty**

Myra Balok, Nancy Barta-Smith, William Boggs, Vernice Cain, Jace Condravy, Cornelius Cosgrove, William Covey, Jr., Robert Crafton, Danette DiMarco, Christopher Kreiser, Cindy LaCom, Jane Lasarenko, Joseph McCarren, I.T.

Meztli, Mark O'Connor, Timothy Oldakowski, Sunita Peacock, Rachela Permenter, Derrick Pitard, Erica Scott, James Strickland, Kathleen Strickland, Jason Stuart, Frederick White, William Zeiger

Within the liberal arts tradition, English courses integrate the studies of literature, language, and writing, and include a range from ancient through contemporary authors. Courses in literature, film, and linguistics, and in creative, technical, and professional writing develop skills useful in law, public relations, government, business, publishing, teaching, and advertising. Students study textual analysis and interpretation, literary theory, ethics, linguistic development and multicultural literatures.

## **B.S. English - Creative Writing**

English Department

Students pursuing a B.S. in English: Creative Writing must also complete 15 hours or more outside the English Department in a sequence from one department, or of a minor or major, in a subject other than English. The selection of outside courses must be approved by the student's English adviser and by the Chair of the English Department.

### **Requirements for the Creative Writing Major - Credits: 45**

#### **Concentration**

##### **15 Hours Required**

- ENGL 225 - Introduction to Creative Writing Credits: 3
- ENGL 330 - Literary Publications & Design Credits: 3
- ENGL 338 - Creative Writing: Creative Nonfiction Credits: 3-6 credits
- ENGL 339 - Creative Writing: Fiction Credits: 3
- ENGL 340 - Creative Writing: Poetry Credits: 3

##### **12 Hours Required**

- ENGL 204 - Composition and Rhetoric Credits: 3
- ENGL 205 - Introduction to Professional Writing Credits: 3
- ENGL 309 - Advanced Professional Writing Credits: 3
- ENGL 403 - Literary and Cultural Theory Credits: 3

##### **3 Hours Required From the Following:**

- ENGL 307 - Writing for Electronic Media and Film Credits: 3
- ENGL 349 - Creative Writing: Screenplay Credits: 3

#### **Language and Literature Courses**

##### **Required Literature Courses**

6 Hours Required From the Following:

- ENGL 217 - Introduction to Shakespeare Credits: 3  
OR
- ENGL 389 - Stratford Shakespeare Tour Credits: 3
- ENGL 242 - African-American Literature Credits: 3
- ENGL 243 - Literature of the Women's Movement Credits: 3
- ENGL 244 - Native American Literature Credits: 3
- ENGL 246 - U.S. Latino / a Literatures Credits: 3
- ENGL 248 - Eastern Literature Credits: 3
- ENGL 263 - World Literature Credits: 3
- ENGL 298 - Selected Topic Credits:  
ENGL 298 MAY BE TAKEN TWICE
- ENGL 311 - Chaucer and Medieval Culture Credits: 3
- ENGL 317 - British Literature I Credits: 3
- ENGL 318 - British Literature II Credits: 3
- ENGL 319 - American Literature I Credits: 3
- ENGL 320 - American Literature II Credits: 3

## Language Requirement

3 Hours Required from the Following:

- ENGL 230 - Introduction to Linguistics and Grammar Credits: 3
- ENGL 331 - Historical Development of the English Language Credits: 3
- ENGL 332 - Modern English Grammar and Syntax Credits: 3

## Other Credits - 15 credits

- a sequence in one other department OR
- a minor or certificate (including multi-disciplinary minors or certificates) OR
- a major in a subject other than English

The selection of courses, certificate, minor, or major must be approved by the student's English adviser and by the Chair of the English Department.

## Capstone Experiences

3 Hours Required from the Following:

One Additional Lit Course From Above (GPA Below 3.0) OR

- ENGL 491 - Senior Writing Project Credits: 1 to 3  
GPA OF 3.0 OR HIGHER

## 3 Hours Required from the Following

- ENGL 409 - Advanced Research Writing Credits: 3  
Students must submit a creative writing portfolio to qualify for graduation.

## Requirements for Internships



Internships with local and national organizations and industries enable students to acquire relevant experience in their areas of academic preparation.

*Students must submit a creative writing portfolio to qualify for graduation.*

## **B.S. English - Professional Writing**

English Department

Students pursuing the B.S. English: Professional Writing must also complete 15 hours or more outside the English Department in a sequence from one department, or certificate (including multi-disciplinary minors or certificates) a minor or major, in a subject other than English. The selection of courses, certificate, minor, or major must be approved by the student's English adviser and by the Chairperson of the English Department.

### Requirements for the Major - Credits: 45

#### Required Concentration Courses - Credits: 24

- ENGL 204 - Composition and Rhetoric Credits: 3
- ENGL 205 - Introduction to Professional Writing Credits: 3
- ENGL 306 - Technical and Scientific Writing Credits: 3
- ENGL 308 - Advertising Copywriting Credits: 3
- ENGL 309 - Advanced Professional Writing Credits: 3
- ENGL 365 - Writing for the World Wide Credits: 3
- ENGL 450 - Internship Credits: Up to 12

#### Required Course - Credits: 3

- ENGL 225 - Introduction to Creative Writing Credits: 3

#### Language and Literature Courses

##### Required - Credits: 3

- ENGL 403 - Literary and Cultural Theory Credits: 3

##### Required - Credits: 6

Choose 6 credits from the following:

- ENGL 217 - Introduction to Shakespeare Credits: 3  
OR
- ENGL 389 - Stratford Shakespeare Tour Credits: 3

- ENGL 242 - African-American Literature Credits: 3
- ENGL 243 - Literature of the Women's Movement Credits: 3
- ENGL 244 - Native American Literature Credits: 3
- ENGL 246 - U.S. Latino / a Literatures Credits: 3
- ENGL 248 - Eastern Literature Credits: 3
- ENGL 263 - World Literature Credits: 3
- ENGL 311 - Chaucer and Medieval Culture Credits: 3
- ENGL 317 - British Literature I Credits: 3
- ENGL 318 - British Literature II Credits: 3
- ENGL 319 - American Literature I Credits: 3
- ENGL 320 - American Literature II Credits: 3

### Required - Credits: 6

Choose 6 credits from the following:

- ENGL 230 - Introduction to Linguistics and Grammar Credits: 3
- ENGL 331 - Historical Development of the English Language Credits: 3

### Capstone Experience

Advanced Research Writing (ENGL 409) should be regarded as the program's capstone course, in which students will write a major research project as well as contribute to the editing and production of publications.

*Students must submit a portfolio of work produced in the program to qualify for graduation.*

- ENGL 409 - Advanced Research Writing Credits: 3

### Other Required Coursework - Credits: 15

The selection of courses, certificate, minor, or major must be approved by the student's English adviser and by the Chair of the English Department. Students may choose:

- A sequence in one other department
- A minor or certificate (including multi-disciplinary minors or certificates)
- A major in a subject other than English

## **BA Literature: Language and Literature Track**

Students pursuing a B.S. in Secondary Education must take the following courses within the Language and Literature track to fulfill NCATE and PDE requirements. These courses include: ENGL 204, 305, 307, and 328. Secondary Education majors should work closely with their academic advisers.

Students pursuing a B.A. in English: Language and Literature without the B.S. in Secondary Education may take approved electives. Choose from the following: ENGL248, 298, 311, 410 or any course listed below that has not already been taken. Approval by academic adviser and department chair is required.

## Required Courses: 24 credits

- ENGL 204 - Composition and Rhetoric Credits: 3  
OR
- ENGL 220 - Introduction to Literary and Cultural Studies Credits: 3
- ENGL 217 - Introduction to Shakespeare Credits: 3  
OR
- ENGL 398 - Selected Topics Credits: 1 to 3
- ENGL 263 - World Literature Credits: 3
- ENGL 317 - British Literature I Credits: 3
- ENGL 318 - British Literature II Credits: 3
- ENGL 319 - American Literature I Credits: 3
- ENGL 320 - American Literature II Credits: 3
- ENGL 403 - Literary and Cultural Theory Credits: 3

## Required Courses: 6 credits

Choose two of the following:

- ENGL 230 - Introduction to Linguistics and Grammar Credits: 3
- ENGL 331 - Historical Development of the English Language Credits: 3
- ENGL 332 - Modern English Grammar and Syntax Credits: 3

## Required Course: 3 credits

Choose one of the following:

- ENGL 242 - African-American Literature Credits: 3
- ENGL 243 - Literature of the Women's Movement Credits: 3
- ENGL 244 - Native American Literature Credits: 3
- ENGL 246 - U.S. Latino / a Literatures Credits: 3

## Required Courses: 6 credits

Choose two of the following:

- ENGL 235 - Writing for Non-Print Media Credits: 3
- ENGL 305 - Practicum: Teaching Writing Credits: 3  
OR
- ENGL 480 - Literature Seminar Credits: 3
- ENGL 328 - Young Adult Literature Credits: 3

# **BA Literature: Literary, Film, and Cultural Studies Track**

English Department

Students pursuing a B.A. in Literature: Literary and Cultural Studies will study the interactions between cultures and literary texts. Writing, linguistics, and oral interpretation of literature are also required. Students take a minimum of 39 credits in English, exclusive of freshman composition courses.

## Requirements for the English Literature Major - Credits: 39

### Required Courses - Credits: 21

- ENGL 214 - Film Analysis Credits: 3
- ENGL 220 - Introduction to Literary and Cultural Studies Credits: 3
- ENGL 298 - Selected Topic Credits:
- ENGL 230 - Introduction to Linguistics and Grammar Credits: 3  
OR
- ENGL 331 - Historical Development of the English Language Credits: 3  
OR
- ENGL 332 - Modern English Grammar and Syntax Credits: 3
- ENGL 263 - World Literature Credits: 3
- ENGL 403 - Literary and Cultural Theory Credits: 3
- ENGL 480 - Literature Seminar Credits: 3

### British Literature - Credits:3

Choose one of the following:

- ENGL 311 - Chaucer and Medieval Culture Credits: 3
- ENGL 217 - Introduction to Shakespeare Credits: 3  
OR
- ENGL 389 - Stratford Shakespeare Tour Credits: 3
- ENGL 317 - British Literature I Credits: 3
- ENGL 318 - British Literature II Credits: 3

### American Literature - Credits: 6

Choose two of the following:

- ENGL 242 - African-American Literature Credits: 3
- ENGL 244 - Native American Literature Credits: 3
- ENGL 246 - U.S. Latino / a Literatures Credits: 3
- ENGL 319 - American Literature I Credits: 3
- ENGL 320 - American Literature II Credits: 3

### Film Studies - Credits: 3

Choose one of the following:

- ENGL 307 - Writing for Electronic Media and Film Credits: 3

- ENGL 314 - European Film Credits: 3
- ENGL 315 - The Cinematic Review: Historical and Critical Writing Credits: 3
- ENGL 316 - Asian Film Credits: 3

## Approved Electives - Credits: 6

Choose two of the following, or a course listed above that you have not already taken, or another English course approved by your adviser and the department chair:

- ENGL 243 - Literature of the Women's Movement Credits: 3
- ENGL 248 - Eastern Literature Credits: 3
- ENGL 298 - Selected Topic Credits:
- ENGL 328 - Young Adult Literature Credits: 3
- ENGL 410 - Literature of the Environment Credits: 3

## Minor in Film and Media Studies

English Department

### Film and Media Studies Minor - Credits: 18

#### Required Courses - Credits: 9

- ENGL 214 - Film Analysis Credits: 3
- ENGL 307 - Writing for Electronic Media and Film Credits: 3
- ENGL 315 - The Cinematic Review: Historical and Critical Writing Credits: 3

#### Minor Electives - Credits: 9

Choose three courses from the following (at least one course must be at the 300 level or higher):

- ART 214 - Art Synthesis Digital Media Credits: 3
- ART 300 - Art Seminar Credits: 3
- ART 314 - Advanced Studio Digital Media Credits: 3
- ART 315 - Master Studio Credits: 1
- ART 414 - Senior Studio Digital Media Credits: 3
- COMM 201 - Digital Imaging 1 Credits: 3
- COMM 254 - Video Production Credits: 3
- COMM 258 - Interactive Multimedia 2 Credits: 3
- COMM 347 - New-Media Journalism Credits: 3
- COMM 350 - Editing for Video Credits: 3
- COMM 355 - TV Field Production Credits: 3
- COMM 359 - Interactive Multimedia 3 Credits: 3
- COMM 362 - Mass Media and Society Credits: 3
- COMM 458 - Media Criticism Credits: 3
- ENGL 314 - European Film Credits: 3

- ENGL 316 - Asian Film Credits: 3
- ENGL 349 - Creative Writing: Screenplay Credits: 3
- ENGL 498 - Selected Topics Credits: 1 to 3
- POLS 333 - The Political Film Credits: 3
- PROF 310 - Cultural Area Studies Credits: 3
- RUSS 305 - Russian Civilization via Film Credits: 3
- SPAN 307 - U.S. Latino Cultures Credits: 3

## Pittsburgh Filmmakers Production or Analysis Course - Credits: 3

(with English Department Chair approval.)

## Minor in Literature

English Department

### Literature Minor - Credits: 21

If you want to earn both a Major and a Minor in English, there are occasions where some overlap may occur, but at least 4 credits (two courses) in the Minor must be outside the Major.

### Required Courses - Credits: 12

- ENGL 220 - Introduction to Literary and Cultural Studies Credits: 3
- ENGL 217 - Introduction to Shakespeare Credits: 3
- OR
- ENGL 389 - Stratford Shakespeare Tour Credits: 3
- ENGL 317 - British Literature I Credits: 3
- OR
- ENGL 318 - British Literature II Credits: 3
- ENGL 319 - American Literature I Credits: 3
- OR
- ENGL 320 - American Literature II Credits: 3

### Required Course - Credits: 3

Choose one course from the following:

- ENGL 242 - African-American Literature Credits: 3
- ENGL 243 - Literature of the Women's Movement Credits: 3
- ENGL 244 - Native American Literature Credits: 3
- ENGL 246 - U.S. Latino / a Literatures Credits: 3
- ENGL 248 - Eastern Literature Credits: 3
- ENGL 263 - World Literature Credits: 3
- ENGL 314 - European Film Credits: 3
- ENGL 316 - Asian Film Credits: 3
- ENGL 298 - Selected Topic Credits:

- ENGL 403 - Literary and Cultural Theory Credits: 3
- ENGL 480 - Literature Seminar Credits: 3

## English Electives - Credits: 6

Choose two additional English courses - not from ENGL 102, 210.

## Minor in Writing

English Department

## Writing Minor - Credits: 21

If you want to earn both a Major and a Minor in English, there are occasions where some overlap may occur, but at least 4 credits (two courses) in the Minor must be outside the Major.

## Required Courses - Credits: 12

Choose four courses from the following:

- ENGL 204 - Composition and Rhetoric Credits: 3
- ENGL 205 - Introduction to Professional Writing Credits: 3
- ENGL 225 - Introduction to Creative Writing Credits: 3
- ENGL 305 - Practicum: Teaching Writing Credits: 3
- ENGL 306 - Technical and Scientific Writing Credits: 3
- ENGL 308 - Advertising Copywriting Credits: 3
- ENGL 309 - Advanced Professional Writing Credits: 3
- ENGL 338 - Creative Writing: Creative Nonfiction Credits: 3-6 credits
- ENGL 339 - Creative Writing: Fiction Credits: 3
- ENGL 340 - Creative Writing: Poetry Credits: 3
- ENGL 450 - Internship Credits: Up to 12

## Required Course - Credits: 3

Choose one course from the following:

- ENGL 230 - Introduction to Linguistics and Grammar Credits: 3
- ENGL 331 - Historical Development of the English Language Credits: 3
- ENGL 332 - Modern English Grammar and Syntax Credits: 3

## English Electives - Credits: 6

Choose two additional English courses - not from ENGL 099, 102, or 210.

## History

212 Spotts World Culture Building  
724-738-2053

## History

The History Department of Slippery Rock University seeks to educate and mentor students to be future leaders in their endeavors and professions by disseminating a knowledge of the past through intensive instruction and research. The department is committed both to academic excellence and to the encouragement of creativity and innovation. We welcome and respect differences, because diversity is a key ingredient in quality education and general discourse. We seek to recruit students from all backgrounds and to foster a culture that instills a sense of responsibility for the broader community. We encourage open debate of ideas within an intellectual environment of mutual respect.

### **Chair**

JOHN CRAIG

### **Secretary**

Lori Marttala

### **Faculty**

William Bergman, Aaron Cowan, John Craig, Margaret Denning, Alan Levy, Michael Matambanadzo, Lia Paradis, Thomas Pearcy, Paula Rieder, Eric Tuten, Carlis White

*"I can truly say that the preparation by the history department at Slippery Rock has served me quite well over the years, and for that, I am profoundly grateful."*

**Deborah K. Kennedy**

**Teacher and former Robert D. Duncan Memorial Awardee**

History is a discipline that supports the liberal arts concentrations in the humanities and the social and behavioral sciences. Its aim is to place men and women and their achievements in the proper perspective of western heritage and the heritage of other cultures. The concentration in history is designed to develop a knowledge of the past with special emphasis on an understanding of contemporary problems. The key to historical scholarship consists of the exercise of critical analysis in order to evaluate and discover the comparative significance of human beings and events.

History majors or social science majors with a concentration in history enter careers in business, government agencies and education or pursue graduate work in history, law, and other professional schools. Students regularly complete internships at the Old Stone House, local historical societies, colonial forts in Western Pennsylvania, and other historical sites in the United States. History students frequently take courses in foreign countries offered by SRU history faculty.

## **History (BA)**

History Department

Requirements for the Major - Credits: 36

Required Courses - Credits: 15



The Historians Craft ( HIST205) required of students entering the program after July 1992.

### Two of the Following:

- HIST 151 - Ancient and Medieval World Credits: 3
- HIST 152 - Rise of the Modern World Credits: 3
- HIST 153 - Contemporary World History Credits: 3

### Two of the Following:

- HIST 201 - Colonial America to 1815 Credits: 3
- HIST 202 - United States, 1815-1920 Credits: 3
- HIST 203 - U.S. History Since 1920 Credits: 3

## Distributional Electives - Credits: 21

Nine credits in one area and six in each of two others from the following:

### American History

- HIST 233 - African American History to 1876 Credits: 3
- HIST 234 - African American History Since 1876 Credits: 3
- HIST 304 - American Military History Credits: 3
- HIST 313 - U.S. Manhood and Masculinities Credits: 3
- HIST 330 - Warfare in the Twentieth Century Credits: 3
- HIST 335 - Outstanding Americans Credits: 3
- HIST 337 - Indians of the United States Credits: 3
- HIST 340 - The Historical and Political Legacies of the Vietnam Era Credits: 3
- HIST 343 - Public History Credits: 3
- HIST 344 - The American City Credits: 3
- HIST 350 - The American Civil War Credits: 3
- HIST 351 - Latin America to 1830 Credits: 3
- HIST 352 - Latin America Since 1830 Credits: 3
- HIST 357 - Challenges of the American Experience I (to 1865) Credits: 3
- HIST 358 - Challenges of the American Experience II (1865 to the Present) Credits: 3
- HIST 435 - Pennsylvania Credits: 3
- HIST 437 - The American West Credits: 3
- HIST 442 - Studies in U.S. Women's History Credits: 3
- HIST 445 - Americans and the Environment Credits: 3
- HIST 450 - History Internship Credits: 1-12
- HIST 451 - U.S. Foreign Relations to 1890 Credits: 3
- HIST 452 - U.S. Foreign Relations Since 1890 Credits: 3
- HIST 453 - American Constitutional History and Law Credits: 3
- HIST 454 - Research and Writing Seminar Credits: 3
- HIST 455 - Economic U.S. History Credits: 3
- HIST 498 - Selected Topics Credits: 1-3

## Non-Western History

- HIST 362 - Africa North of the Zambezi Credits: 3
- HIST 363 - Southern Africa Credits: 3
- HIST 370 - History and the Bible Credits: 3
- HIST 371 - History of Jews Credits: 3
- HIST 376 - Modern Japan Credits: 3
- HIST 380 - Egyptology Credits: 3
- HIST 381 - East Asian Military Traditions Credits: 3
- HIST 382 - Modern Asian Pacific Rim Credits: 3
- HIST 386 - Modern China Credits: 3
- HIST 406 - Mass Killing and Genocide in the Modern World Credits: 3
- HIST 450 - History Internship Credits: 1-12
- HIST 454 - Research and Writing Seminar Credits: 3
- HIST 462 - The Contemporary Middle East Credits: 3
- HIST 463 - Israel - History, State, and Society Credits: 3
- HIST 498 - Selected Topics Credits: 1-3

## European History

- HIST 305 - Russia to 1855 Credits: 3
- HIST 306 - Russia Since 1855 Credits: 3
- HIST 318 - Gender and Sexuality in European Society Credits: 3
- HIST 319 - History of Women to 1750 Credits: 3
- HIST 320 - History of Women from 1750 to the Present Credits: 3
- HIST 322 - Germany in the Twentieth Century Credits: 3
- HIST 330 - Warfare in the Twentieth Century Credits: 3
- HIST 331 - England to 1689 Credits: 3
- HIST 332 - Britain Since 1689 Credits: 3
- HIST 333 - Medieval Church Credits: 3
- HIST 422 - Ancient Greece Credits: 3
- HIST 423 - Ancient Rome Credits: 3
- HIST 424 - The Middle Ages Credits: 3
- HIST 426 - French Revolution and Napoleon Credits: 3
- HIST 427 - Nineteenth Century Europe Credits: 3
- HIST 346 - Rise of Imperial Britain Credits: 3
- HIST 347 - Twentieth Century British Culture Credits: 3
- HIST 404 - Violence in Post-45 Europe Credits: 3
- HIST 450 - History Internship Credits: 1-12
- HIST 454 - Research and Writing Seminar Credits: 3
- HIST 498 - Selected Topics Credits: 1-3

## Minor in American History

History Department

## Requirements for the Minor - Credits: 18

### American History:

#### 6 Credits from the Following

- HIST 201 - Colonial America to 1815 Credits: 3
- HIST 202 - United States, 1815-1920 Credits: 3
- HIST 203 - U.S. History Since 1920 Credits: 3

#### 9 Credits from the Following (6 credits must be 300 level or above)

- HIST 233 - African American History to 1876 Credits: 3
- HIST 234 - African American History Since 1876 Credits: 3
- HIST 304 - American Military History Credits: 3
- HIST 313 - U.S. Manhood and Masculinities Credits: 3
- HIST 330 - Warfare in the Twentieth Century Credits: 3
- HIST 335 - Outstanding Americans Credits: 3
- HIST 337 - Indians of the United States Credits: 3
- HIST 340 - The Historical and Political Legacies of the Vietnam Era Credits: 3
- HIST 343 - Public History Credits: 3
- HIST 344 - The American City Credits: 3
- HIST 350 - The American Civil War Credits: 3
- HIST 351 - Latin America to 1830 Credits: 3
- HIST 352 - Latin America Since 1830 Credits: 3
- HIST 357 - Challenges of the American Experience I (to 1865) Credits: 3
- HIST 358 - Challenges of the American Experience II (1865 to the Present) Credits: 3
- HIST 435 - Pennsylvania Credits: 3
- HIST 437 - The American West Credits: 3
- HIST 442 - Studies in U.S. Women's History Credits: 3
- HIST 445 - Americans and the Environment Credits: 3
- HIST 450 - History Internship Credits: 1-12
- HIST 451 - U.S. Foreign Relations to 1890 Credits: 3
- HIST 452 - U.S. Foreign Relations Since 1890 Credits: 3
- HIST 453 - American Constitutional History and Law Credits: 3
- HIST 454 - Research and Writing Seminar Credits: 3
- HIST 455 - Economic U.S. History Credits: 3
- HIST 498 - Selected Topics Credits: 1-3

#### History Elective - Credits: 3

Choose one additional History course not taken above. Select from HIST 151 through HIST 498.

## **Minor in European History**

History Department

## Requirements for the Minor - Credits: 18

### 6 Credits from the Following:

- HIST 151 - Ancient and Medieval World Credits: 3
- HIST 152 - Rise of the Modern World Credits: 3
- HIST 153 - Contemporary World History Credits: 3

### 9 Credits from the Following:

- HIST 305 - Russia to 1855 Credits: 3
- HIST 306 - Russia Since 1855 Credits: 3
- HIST 318 - Gender and Sexuality in European Society Credits: 3
- HIST 319 - History of Women to 1750 Credits: 3
- HIST 320 - History of Women from 1750 to the Present Credits: 3
- HIST 322 - Germany in the Twentieth Century Credits: 3
- HIST 330 - Warfare in the Twentieth Century Credits: 3
- HIST 331 - England to 1689 Credits: 3
- HIST 332 - Britain Since 1689 Credits: 3
- HIST 333 - Medieval Church Credits: 3
- HIST 422 - Ancient Greece Credits: 3
- HIST 423 - Ancient Rome Credits: 3
- HIST 424 - The Middle Ages Credits: 3
- HIST 426 - French Revolution and Napoleon Credits: 3
- HIST 427 - Nineteenth Century Europe Credits: 3
- HIST 346 - Rise of Imperial Britain Credits: 3
- HIST 347 - Twentieth Century British Culture Credits: 3
- HIST 404 - Violence in Post-45 Europe Credits: 3
- HIST 450 - History Internship Credits: 1-12
- HIST 454 - Research and Writing Seminar Credits: 3
- HIST 498 - Selected Topics Credits: 1-3

### History Elective (3 credits)

Any 3 credit History course

## **Minor in General History**

History Department

## Requirements for the Minor - Credits: 18

- 9 Credits from 100 and 200 level history courses
- 9 Credits of electives in history at the 300 level or above

## **Minor in Military History**

History Department

Requirements for the Minor - Credits: 18

6 Credits from the Following

- HIST 151 - Ancient and Medieval World Credits: 3
- HIST 153 - Contemporary World History Credits: 3

12 Credits from the Following

- HIST 304 - American Military History Credits: 3
- HIST 330 - Warfare in the Twentieth Century Credits: 3
- HIST 340 - The Historical and Political Legacies of the Vietnam Era Credits: 3
- HIST 350 - The American Civil War Credits: 3
- HIST 381 - East Asian Military Traditions Credits: 3
- HIST 404 - Violence in Post-45 Europe Credits: 3
- HIST 426 - French Revolution and Napoleon Credits: 3
- HIST 454 - Research and Writing Seminar Credits: 3

## **Minor in Non-Western History**

History Department

Requirements for the Minor - Credits: 18

6 Credits from the Following

- HIST 151 - Ancient and Medieval World Credits: 3
- HIST 153 - Contemporary World History Credits: 3

9 Credits from the Following

- HIST 362 - Africa North of the Zambezi Credits: 3
- HIST 363 - Southern Africa Credits: 3
- HIST 370 - History and the Bible Credits: 3
- HIST 371 - History of Jews Credits: 3
- HIST 376 - Modern Japan Credits: 3
- HIST 380 - Egyptology Credits: 3
- HIST 381 - East Asian Military Traditions Credits: 3
- HIST 382 - Modern Asian Pacific Rim Credits: 3
- HIST 386 - Modern China Credits: 3

- HIST 406 - Mass Killing and Genocide in the Modern World Credits: 3
- HIST 450 - History Internship Credits: 1-12
- HIST 454 - Research and Writing Seminar Credits: 3
- HIST 462 - The Contemporary Middle East Credits: 3
- HIST 463 - Israel - History, State, and Society Credits: 3
- HIST 498 - Selected Topics Credits: 1-3

## History Elective - Credits: 3

Choose one additional History course not taken above. Select from HIST 151 through HIST 498.

# Modern Languages and Cultures

119 Strain Behavioral Science Building  
724-738-2062

## Modern Languages and Cultures

The department's mission is to prepare students for the challenges of an increasingly interconnected world. Our main goal is to enable the acquisition of world languages other than English for SRU students. We aim to educate world citizens who will acquire linguistic skills through an intellectual process that takes into account the perspective of the target culture. Our mission thus supports the vision statement of Slippery Rock University which encourages us to excel as a caring community of lifelong learners connecting with the world.

### Chair

Ana Maria Caula

### Secretary

Deb Kosciuszko

### Faculty

Ana Maria Caula, Deb Cohen, Adelaida Cortijo, Thomas Daddesio, Gisela Dieter

*"I can honestly say that without such a caring and hardworking department, I would not be where I am today. Living and working in France having the time of my life. The department provided me with many experiences, both on campus and off, that I will never forget."* Katie L. Snedecker, BA French 2004

*"I feel very knowledgeable and competent as a future teacher thanks to the wonderful guidance and instruction that I received from my foreign language professors and the educational department. I am proud that I will be able to take my SRU education and use it to make a difference in the future."* Regina Jeanette, BSED Spanish 2005

*"Thanks to the amazing MLC staff, I learned how to speak two other languages and I'm now using both of them working and studying abroad!"* Vincent Celender, BA French 2005

The study of modern languages will develop your linguistic skills, prepare you to better understand the culture or cultures associated with them and generally broaden your horizons. The greater intellectual curiosity that you will acquire and the ability to express yourself in another language will prepare you for the challenges of the global age we live in.

As a student of modern languages, you should look forward to a world of career options, some of which include business, government, journalism, education, interpreting or translating. You are strongly encouraged to discuss your career goals with your advisor or the department chairperson. Interested students are welcome to participate in the French Club, the German Club, the Arabic Club, the Japan Club, the Korean Club, the Russian Club, or the Spanish club.

Students of modern languages may look forward to careers in business, government, journalism, education, interpreting, or translating. Students are encouraged to discuss their career goals with the departmental chairperson, and/or advisor. Interested students are welcome to participate in the Russian Club, the Spanish Club, the French Club, or the German Club.

Students with previous language experience must take an appropriate modern language placement test to determine course eligibility. Students who wish to receive academic credit for previous experience must take the appropriate CLEP examination administered by the university. The CLEP examination must be taken before enrollment in foreign language courses and for freshmen within the first few weeks of the semester.

Arabic, Chinese, French, German, Japanese, Korean, Russian, and Spanish 101, 102, and 103 satisfy the liberal arts language requirement for the Bachelor of Arts degree in any discipline as well as the liberal arts goal and enrichment requirements in the global community area.

## **Certificate in Latin American Studies**

Modern Languages & Cultures Department

For Spanish Majors

### **Required Courses**

Exemption is possible from the core courses according to performance on the placement test. CLEP, AP and OPI credits are accepted.

- SPAN 101 - Spanish Language & Culture I Credits: 3
- SPAN 102 - Spanish Language & Culture II Credits: 3
- SPAN 103 - Spanish Language & Culture III Credits: 3
- SPAN 201 - Spanish Conversation I Credits: 3
- SPAN 220 - Reading in Spanish Credits: 3

### **Civilization Required Courses (6 credits)**

Two of the following courses:

- SPAN 307 - U.S. Latino Cultures Credits: 3
- SPAN 326 - The Civilization of Spanish America: Precolumbian to 19th Century Credits: 3
- SPAN 328 - The Civilization of Spanish America: 19th Century to Present Credits: 3

### **Literature Required Courses (6 credits)**

Two of the following courses:

- ENGL 246 - U.S. Latino / a Literatures Credits: 3

- SPAN 332 - Spanish American Literature - 19th Century to Present Credits: 3
- SPAN 432 - Spanish-American Literature: Precolumbian to 19th Century Credits: 3

## Electives (minimum 3 credits)

One or two of the following courses:

- DANC 122 - Jazz Dance I Credits: 1
- GES 201 - Latin America and the Caribbean Credits: 3
- HIST 351 - Latin America to 1830 Credits: 3
- HIST 352 - Latin America Since 1830 Credits: 3

## French (BA)

Modern Languages & Cultures

The study of French language and culture is a passport to the past, the present, and the future. With it the student can go back in time to the dawn of French civilization and follow its development from before the Gallo-Roman period through the Middle Ages, with the flowering of the great cathedrals, into the Renaissance graced by its many chateaux, and on to the glories of imperial France under Louis XIV. Armed with knowledge of French, the student will better understand also the Enlightenment, whose numerous great French philosophers carved out the principle of both the American and the French revolutions. The developments which followed brought today's democracies into being. French is a principal language in 43 countries many of them in key regions in the world.

Majors obtain jobs in teaching, health and human services professions, international business and business-related professions, communication, and technology-related fields.

Students with previous French language experience must take the modern languages placement test to determine course eligibility. Students desiring to receive academic credit for previous experience must take the appropriate CLEP examination administered by the university. The CLEP examination must be taken before enrollment in foreign language courses for freshmen within the first few weeks of the semester.

French 101, 102, and 103 satisfy the liberal arts language requirement for the Bachelor of Arts degree in any discipline and the liberal arts goal and enrichment requirements in the global community area.

## Requirements for the Major - Credits: 30-39

### Major Prerequisite Courses or Equivalent

Exemption is possible from these courses according to performance on the placement test. CLEP, AP and OPI credits are accepted.

- FREN 101 - French Language and Culture I Credits: 3
- FREN 102 - French Language and Culture II Credits: 3

### Basic Skills Courses



Note: Exemption is possible from these courses according to performance in the department placement exam, AP - Credits or CLEP - Credits. Native or Heritage speakers should consult the Department of Modern Languages and Cultures.

- FREN 103 - French Language and Culture III Credits: 3
- FREN 201 - French Conversation 1 Credits: 3
- FREN 220 - Reading in French Credits: 3

## Required Courses

- FREN 300 - French Grammar and Composition 1 Credits: 3
- FREN 330 - French Literature from the 18th Century to the Present Credits: 3
- FREN 350 - French Linguistics and Phonetics Credits: 3
- FREN 400 - French Grammar and Composition 2 Credits: 3

## One of the following literature courses:

- FREN 404 - Modern French Literature Credits: 3
- FREN 430 - French Literature 12th to 17th Century Credits: 3

## One of the following civilization courses:

- FREN 305 - French Civilization Credits: 3
- FREN 306 - Modern France and Francophone Identities Credits: 3

## One of the following conversation courses:

- FREN 301 - French Conversation 2 Credits: 3
- or
- FREN 401 - French Conversation 3 Credits: 3

## Note:

6 - 9 Credits of any 300- or 400- level French course may be chosen as electives except any French course taught in English. Choose as many electives as necessary to reach 30 hours of courses in French.

## Electives: Credits 0-9

Any 300 or 400 level French course may be chosen as an elective including the civilization course not chosen.

## Specialization: Business Administration Specialization with International Emphasis

This program is designed for students who prefer the flexibility of a liberal arts program while studying the international market. Such a student may decide to enter an MBA program designed specifically for the liberal arts language major. Specific requirements for this program are available under the French Business Administration Specialization with International Emphasis program.

# French: Professional Track (BA)

Modern Languages & Cultures Department

New title Spring 2014; Old title=French: Business Administration Track (BA)

## Requirements for the Major

### Major Prerequisite Courses or Equivalent

Exemption is possible from this course according to performance on the placement test. CLEP, AP, and OPI credits are accepted.

- FREN 101 - French Language and Culture I Credits: 3

### Basic Skills Courses

Exemption is possible from these courses according to performance on the placement test. CLEP, AP and OPI credits are accepted for some of the following courses.

- FREN 102 - French Language and Culture II Credits: 3
- FREN 103 - French Language and Culture III Credits: 3
- FREN 201 - French Conversation 1 Credits: 3
- FREN 220 - Reading in French Credits: 3

### Required Courses

- FREN 300 - French Grammar and Composition 1 Credits: 3
- FREN 303 - Professional French Credits: 3
- FREN 350 - French Linguistics and Phonetics Credits: 3
- FREN 400 - French Grammar and Composition 2 Credits: 3

### One of the following civilization courses:

- FREN 305 - French Civilization Credits: 3
- FREN 306 - Modern France and Francophone Identities Credits: 3

### One of the following conversation courses:

- FREN 301 - French Conversation 2 Credits: 3
- FREN 401 - French Conversation 3 Credits: 3

Electives: Credits 0-12

Choose electives to complete 30 credits for the major. Any 300 or 400 level French course may be chosen as an elective, including the conversation or civilization courses not chosen above.

## Minor in a Selected Field

Students pursuing a BA in French, Professional Track must also complete a minor outside the MLC Department. The selected minor must be approved by the student's MLC adviser and by the Chair of the MLC Department.

## Non-Credit Requirement

Student must select one of the following:

- Capstone: Students' research must be conducted in their minor area and the final product will be presented using the French language.
- Study Abroad: Minimum of 6 credits.
- Internship Experience: The selected internship must be approved by the MLC chair and adviser as well as the minor adviser.

## Minor in Asian Studies

Asian Studies

### **Coordinator**

George Brown, SWC 112-G, (724) 738-2435, [george.brown@sru.edu](mailto:george.brown@sru.edu)

### **Advisor**

Armand Policicchio, SWC 107-E, (724) 738-2689, [armand.policicchio@sru.edu](mailto:armand.policicchio@sru.edu)

### **Faculty**

Kundan Bhatia, George Brown, Xianfeng Chen, Andrew Colvin, Margaret Denning, Srinivasa Mani, Alison McNeal, J. Sunita Peacock, Armand Policicchio, Li Pu, Jialing Wang, Junko Yamamoto, and visiting professors from China, India, Japan, and Korea.

The Asian Studies minor offers students the opportunity to gain a working knowledge of the countries East Asia, Southeast Asia, and South Asia. About forty percent of the people residing on the globe live in Asia, including China, and India, the two most populous countries in the world. Asia also contains the most rapidly industrializing and fastest growing economies in the world: by 2050 China will be the world's largest economy, Japan will be among the top five global economies, and India will also take its place as one of the greatest economic powers of the century. Asia is important as well because it is home to several of the world's core civilizations with distinctive cultures, well developed social institutions, highly developed religious and philosophical traditions, rich and complex languages and literatures, and artistic and architectural traditions that go back in continuously evolving lines for over thirty centuries. Asia is also important politically; it is a place of dynamic political change and unresolved political conflicts with enormous consequence for the United States (North and South Korea, China and Taiwan, India and Pakistan, China and Japan, etc.). The Asian Studies minor provides a valuable focus for majors in many fields. Business majors will find a minor in East Asian Studies particularly attractive to future employers who are already doing business in the region or who wish to begin trade there. Future teachers and social workers as well as health and fitness professionals will find the background useful in their work with the increasing Asian population in the United States (Asians and Pacific Islanders are the fastest growing minority in America). Students with majors in the humanities and social sciences will find the minor a valuable balance to the largely Western content and methodologies that characterize their fields of study. Future teachers and social workers as well as health and fitness professionals will find the background useful in their

work with the increasing Asian population in the United States. (Asian and Pacific Islanders are the fastest growing minority in America.) The Asian Studies Minor offers language training and exchange opportunities that will enable students to live and work successfully in a global society.

## Requirements for the Minor

### Minor Requirement with Asian Language

Students are required to earn 21 credits from the courses below, including 9 credits from Asian Languages and 9 credits from AS Core Courses. All students are encouraged to take Introduction to Asian Civilizations (54 105) or equivalent course approved by the Asian Studies Advisor. At least 6 credits other than languages must be at the 300 level and above.

- MODL 105 - Introduction to Asian Civilizations Credits: 3

### Asian Languages and Cultures - 9 Credits Required from the following:

- CHIN 101 - Chinese Language and Culture I Credits: 3
- CHIN 102 - Chinese Language and Culture II Credits: 3
- CHIN 103 - Chinese Language and Culture III Credits: 3
- CHIN 202 - Intermediate Chinese I Credits: 3

Or

- KORN 101 - Korean Language and Culture I Credits: 3
- KORN 102 - Korean Language and Culture II Credits: 3
- KORN 103 - Korean Language and Culture III Credits: 3
- KORN 202 - Intermediate Korean I Credits: 3

Or

- JAPN 101 - Japanese Language and Culture I Credits: 3
- JAPN 102 - Japanese Language and Culture II Credits: 3
- JAPN 103 - Japanese Language and Culture III Credits: 3
- JAPN 202 - Intermediate Japanese I Credits: 3

### Core Courses in Asian Studies - 9 Credits Required from the following:

- ENGL 248 - Eastern Literature Credits: 3
- ENGL 316 - Asian Film Credits: 3
- GES 303 - Asia Credits: 3
- HIST 376 - Modern Japan Credits: 3
- HIST 381 - East Asian Military Traditions Credits: 3
- HIST 382 - Modern Asian Pacific Rim Credits: 3
- HIST 386 - Modern China Credits: 3
- PHIL 343 - Asian Philosophy Credits: 3
- POLS 331 - Seminar in Japanese Politics Credits: 3

- POLS 366 - Seminar in Chinese Politics Credits: 3
- POLS 371 - Politics in Asia Credits: 3
- PROF 310 - Cultural Area Studies Credits: 3  
Asian Topics Only
- PROF 360 - Women in Asian Societies Credits: 3

## Supplemental Asian Studies Courses

(Any two of these is equivalent to one full course credit for the minor).

- ENGL 210 - Interpreting Literature Credits: 3  
by advisement
- ENGL 263 - World Literature Credits: 3  
by advisement
- GES 109 - Environments and Peoples of the Developing World Credits: 3  
by advisement
- PHIL 140 - World Religions Credits: 3
- POLS 369 - Politics of Developing Areas Credits: 3  
by advisement
- PROF 202 - Introduction to Anthropology Credits: 3  
by advisement

## Minor in French

Modern Languages & Cultures Department

### Requirements for the Minor - Credits: 18

Eighteen credits of French courses above the 101 level, including a minimum of two 300 or 400 level courses.

## Minor in German

Modern Languages & Cultures Department

### Required Courses

- GERM 102 - German Language and Culture II Credits: 3
- GERM 103 - German Language and Culture III Credits: 3
- GERM 201 - Communication in German Credits: 3
- GERM 220 - Reading in German Credits: 3

Two German courses at the 300 or 400 level

## Minor in Russian

Modern Languages & Cultures Department

## Requirements for the Minor - Credits: 18

- RUSS 101 - Russian Language and Culture I Credits: 3
- RUSS 102 - Russian Language and Culture II Credits: 3
- RUSS 103 - Russian Language and Culture III Credits: 3
- RUSS 202 - Intermediate Russian I Credits: 3
- RUSS 305 - Russian Civilization via Film Credits: 3
- RUSS 306 - The Challenge of Russian Legacy Credits: 3

## Minor in Spanish

Modern Languages & Cultures Department

## Requirements for the Minor - Credits: 18

### Required Spanish Courses - Credits: 12

- SPAN 103 - Spanish Language & Culture III Credits: 3
- SPAN 200 - Spanish Grammar and Composition I Credits: 3
- SPAN 201 - Spanish Conversation I Credits: 3
- SPAN 220 - Reading in Spanish Credits: 3

### Courses at 300/400 Level - Credits: 6

Two courses required at the SPAN 300 and/or 400 level

## Minor in Spanish for Education Majors (Elementary, Secondary, Special Ed)

Modern Languages & Cultures Department

## Requirements for the Minor - Credits: 18 - 24

Any additional credits necessary to reach 18 hours if beginning courses were exempt.

### Basic Courses

Based on the Placement Test administered by the Department of Modern Languages and Cultures, a student may exempt any or all of the courses at the 100 and 200 levels.

- SPAN 103 - Spanish Language & Culture III Credits: 3
- SPAN 200 - Spanish Grammar and Composition I Credits: 3
- SPAN 201 - Spanish Conversation I Credits: 3
- SPAN 220 - Reading in Spanish Credits: 3

Choose 3 of the following courses:

- SPAN 302 - Communication in Spanish for the Elementary Classroom Credits: 3
- SPAN 309 - Hispanic Civilization for the K-12 Classroom Credits: 3
- SPAN 318 - Hispanic Children's Literature for the K-12 Classroom Credits: 3
- SEFE 323 - Teaching World Languages Credits: 3

## Spanish (BA)

Modern Languages & Cultures Department

Why study Spanish? There are many substantive reasons, but an important one is that Hispanics are the fastest growing segment of the U.S. population. Therefore, the knowledge of Spanish is of value in all human services professions, as well as in many areas of business, especially since Latin America represents a large potential market. Because Spanish can become an invaluable skill in an occupation, many students choose to combine Spanish with another area as a double major or as a minor.

Students with previous language experience must take the modern language Spanish placement test to determine course eligibility. Students desiring to receive academic credit for previous experience must take the appropriate CLEP examination administered by the university. The CLEP examination must be taken before enrollment in world language courses and for freshmen within the first few weeks of the semester.

Spanish 101, 102, and 103 satisfy the liberal arts language requirement for the Bachelor of Arts degree in any discipline.

## Requirements for the Major - Credits: 30-39

### Major Prerequisite Courses or Equivalents

Exemption is possible from these courses according to performance on the placement test. CLEP, AP and OPI credits are accepted.

- SPAN 101 - Spanish Language & Culture I Credits: 3
- SPAN 102 - Spanish Language & Culture II Credits: 3
- SPAN 103 - Spanish Language & Culture III Credits: 3

### Basic Skills Courses

Exemption is possible from these courses according to performance in the department placement exam, AP - Credits or CLEP - Credits. Native or Heritage speakers should consult the Department of Modern Languages and Cultures.

- SPAN 200 - Spanish Grammar and Composition I Credits: 3
- SPAN 201 - Spanish Conversation I Credits: 3
- SPAN 220 - Reading in Spanish Credits: 3

## Required Courses:

- SPAN 300 - Spanish Grammar and Composition II Credits: 3
- SPAN 301 - Spanish Conversation II Credits: 3
- SPAN 400 - Spanish Grammar and Composition III Credits: 3
- SPAN 401 - Spanish Conversation III Credits: 3

## One of following civilization courses:

- SPAN 305 - Spanish Civilization Credits: 3
- SPAN 307 - U.S. Latino Cultures Credits: 3
- SPAN 326 - The Civilization of Spanish America: Precolumbian to 19th Century Credits: 3
- SPAN 328 - The Civilization of Spanish America: 19th Century to Present Credits: 3

## One of the following literature survey courses:

- SPAN 330 - Spanish Literature 1800 to Present Credits: 3
- SPAN 332 - Spanish American Literature - 19th Century to Present Credits: 3

## One of the following literature courses:

- SPAN 431 - Spanish Literature - Medieval to 18th Century Credits: 3
- SPAN 432 - Spanish-American Literature: Precolumbian to 19th Century Credits: 3

## Electives: Credits 0-9

6 credits of any 300- or 400-level Spanish course may be chosen as electives except Spanish 302, 309 or any Spanish course taught in English. Choose as many electives as necessary to reach 30 hours of courses in Spanish.

## Second Language

Students not pursuing a double major are strongly encouraged to complete the skills block in Chinese, French, German, Italian, Japanese, Korean, or Russian.

## Second Language Minor

A minor in the second language may be earned by completing the courses indicated. For a French minor: 101, 102, 103, 201 and 220 and any two 300-level courses.

## Study Abroad Program (highly recommended)

Students should plan to spend a summer or semester in a country where Spanish is spoken. Credits earned may be used to fill the above requirements.

## **Spanish: Professional Track (BA)**



Modern Languages & Cultures Department

This program is designed for students who prefer the flexibility of a liberal arts program while studying the international market. Such a student may decide to enter an MBA program designed specifically for the liberal arts language major.

New title Spring 2014; Old title=Spanish: Business Administration Track (BA)

## Requirements for the Major

### Major Prerequisite Courses or Equivalent

Exemption is possible from these courses according to performance on the placement test. CLEP, AP and OPI credits are accepted.

- SPAN 101 - Spanish Language & Culture I Credits: 3
- SPAN 102 - Spanish Language & Culture II Credits: 3
- SPAN 103 - Spanish Language & Culture III Credits: 3

### Basic Skills Courses

Exemption is possible from these courses according to performance on the placement test. CLEP, AP and OPI credits are accepted for some of the following courses.

- SPAN 200 - Spanish Grammar and Composition I Credits: 3
- SPAN 201 - Spanish Conversation I Credits: 3
- SPAN 220 - Reading in Spanish Credits: 3

### Required Spanish Courses

- SPAN 300 - Spanish Grammar and Composition II Credits: 3
- SPAN 301 - Spanish Conversation II Credits: 3
- SPAN 303 - Professional Spanish Credits: 3
- SPAN 340 - Introduction to Translation I Credits: 3
- SPAN 400 - Spanish Grammar and Composition III Credits: 3
- SPAN 401 - Spanish Conversation III Credits: 3

### One of the following civilization courses:

- SPAN 305 - Spanish Civilization Credits: 3
- SPAN 307 - U.S. Latino Cultures Credits: 3
- SPAN 326 - The Civilization of Spanish America: Precolumbian to 19th Century Credits: 3
- SPAN 328 - The Civilization of Spanish America: 19th Century to Present Credits: 3

### Minor in a Selected Field

Students pursuing a BA in Spanish, Professional Track must also complete a minor outside the MLC Department. The selected minor must be approved by the student's MLC adviser and by the Chair of the MLC Department.

## Non-Credit Requirement

Student must select one of the following:

- Capstone: Students' research must be conducted in their minor area and the final product will be presented using the Spanish language.
- Study Abroad: Minimum of 6 credits.
- Internship Experience: The selected internship must be approved by the MLC chair and adviser as well as the minor adviser.

## Music

225 Swope Music Hall  
724-738-2063

Music

The Slippery Rock University Department of Music is committed to providing learning experiences to meet the current and future needs of today's student. We recognize the unique power of music to express emotion, to teach, to foster communication, to access memories, to motivate, to initiate movement, and to provide enrichment for the community-at-large. The department will provide an environment for serious study and musical performance as we prepare our students for successful careers in music education, music therapy, and performance.

### **Chair**

David Glover

### **Secretary**

Barbara Frankenburg

### **Faculty**

James Berry, Warren Davidson, David Glover, Colleen Gray, Susan Hadley, Stephen Hawk, Maribeth Knaub, Nanette Solomon, Stacey Steele, Glenn Utsch

"The contract for my first job was signed and approved a month before I graduated because Slippery Rock University prepared me to teach, to learn, and to live as a competent, productive citizen. Five years later, I am happily and successfully teaching music and directing high school bands in the same school district."

**Tonia Asel '95**

**Music Education/Performance Major**

The Department of Music offers students the opportunity to focus their studies on education, therapy, performance, or a combination of these majors. Courses include study in applied music performance, music literature, music theory and composition, music education, music therapy and a variety of instrumental and vocal performing ensembles. Students electing courses in music will develop performance skills and interests and a greater perception of their musical heritage and environment. The music major may look forward to careers in private teaching, performance, music education, or music therapy.

Mu Phi Epsilon is an international, professional music fraternity that seeks to advance music in America and throughout the world, the promotion of musicianship and scholarship, loyalty to the Alma mater, and the development of true bonds of friendship. Election to Mu Phi Epsilon is based upon scholarship, musicianship, character and personality. Membership is offered to music majors and minors who are in their second semester and have attained specific standards in the above areas. The Delta Mu chapter at SRU, founded in 1994, sponsors concerts and provides many services within the music department.

## **Minor in Music**

Music Department

Students may pursue a minor in music after passing an audition before the music faculty. The curriculum, determined through advisement, consists of 25 credits of music courses.

### **Requirements for the Minor in Music - Credits: 25**

#### **Music Theory - Credits: 6**

- MUSI 151 - Music Theory and Analysis I Credits: 2
- MUSI 154 - Musicianship Skills I Credits: 1
- MUSI 253 - Music Theory and Analysis II Credits: 2
- MUSI 256 - Musicianship Skills II Credits: 1

#### **Music History - Credits: 3**

- MUSI 273 - History of Music I Credits: 3  
OR
- MUSI 373 - History of Music II Credits: 3

#### **Applied Lessons - Credits: 4**

One half-hour each week. Any of the applied lessons approved during the student's audition.

#### **Ensemble - Credits: 3**

Three semesters; one credit each. An ensemble is selected according to a student's major applied area.

#### **Electives - Credits: 6**

Any music course numbered 300 or above. Prerequisites may be waived with permission from department chairperson.

- MUSI 300 - Marching Band Field Charting Credits: 1
- MUSI 301 - Women and Music Credits: 3
- MUSI 332 - Vocal Conducting Credits: 1
- MUSI 333 - Instrumental Conducting Credits: 1
- MUSI 350 - Computer Technology in Music Credits: 2

- MUSI 360 - Keyboard Improvisation Credits: 1
- MUSI 361 - Instrumental Improvisation Credits: 1
- MUSI 473 - History of Music III Credits: 3

### Free Elective - Credits: 3

Any music course in the music major series.

## Music (BA)

Music Department

**Total Degree Credits: 120**

### Requirements for the Major - Credits: 40

All prospective music majors must audition with a faculty committee from the Department of Music.

### Required Music Courses - Credits: 39

- Applied Major - Semesters: 7  
(\* see footnote)
- Ensemble - Semesters: 7  
(\* see footnote)
- MUSI 151 - Music Theory and Analysis I Credits: 2
- MUSI 154 - Musicianship Skills I Credits: 1
- MUSI 253 - Music Theory and Analysis II Credits: 2
- MUSI 254 - Music Theory and Analysis III Credits: 2
- MUSI 255 - Music Theory and Analysis IV Credits: 2
- MUSI 256 - Musicianship Skills II Credits: 1
- MUSI 257 - Musicianship Skills III Credits: 1
- MUSI 258 - Musicianship Skills IV Credits: 1
- MUSI 273 - History of Music I Credits: 3
- MUSI 332 - Vocal Conducting Credits: 1
- OR
- MUSI 333 - Instrumental Conducting Credits: 1
- MUSI 350 - Computer Technology in Music Credits: 2
- MUSI 351 - Arranging & Orchestration Credits: 2
- MUSI 373 - History of Music II Credits: 3
- MUSI 473 - History of Music III Credits: 3

### Footnote

\* See chairperson of Department of Music for an explanation of this requirement.

## Modern Language Requirement

All candidates for the bachelor of arts degree must demonstrate competency in a modern language at the 103 level through either coursework or placement tests.

## Music Education (BM)

Music Department

The Department of Music offers an undergraduate program in music education which meets requirements for the National Association Schools of Music (NASM) and state certification in music, grades K-12. Prospective music teachers are required to take coursework that is balanced to offer a broad education, including courses in music, music performance, professional education, and liberal studies. Students are required to complete 40 contact hours in elementary and secondary music education settings during the freshman and sophomore years. The junior and senior years allow the students the opportunity to apply the philosophies, methodologies, and techniques that they have observed and discussed in classes. For four weeks during field experience and sixteen weeks of student teaching, students will observe, assist and teach in a public school setting.

Music Education students are encouraged to join the Pennsylvania Collegiate Music Educators Association (PCMEA). The PCMEA meets monthly, offers workshops and conferences and promotes pre-professional experiences for the music education major.

Requirements for acceptance to the Teacher Certification Programs during the sophomore or junior year may include but also exceed the following: completion of 48 credit hours; minimum GPA requirements for Basic Competency courses, music education program, and cumulative GPA; passing scores on Praxis exams; completion of 40 hours of observations in educational settings; evidence of professional conduct; criminal and child abuse background checks; and a TB test.

The guidelines on admission, professional conduct, and student teaching for this department include and may go beyond those required for the College of Education as a whole. Details are available in the Department of Music or from the student's advisor. See also the Programs for Certification of Professional School Personnel and the Teacher Education Policy Manual, available in 105 McKay Education Building.

The double majors, BM in Performance/BM in Music Education, the BM in Performance/BM in Music Therapy, the BM in Music Education/BM in Music Therapy are available for students who wish to pursue combined degrees. Please see Chairperson for the semester by semester schedule.

## Requirements for the Major - Credits: 61

All prospective music education majors must audition with a faculty committee of the Department of Music.

## Required Music Courses

- Applied Major (7 credits)  
\* see footnote

- Applied Minor (4 credits)  
\* see footnote
- Ensemble (7 credits)  
\* see footnote
- MUSI 133 - Class Voice Credits: 1  
instrumental majors only
- MUSI 134 - Voice Methods Credits: 1
- MUSI 135 - String Methods Credits: 1
- MUSI 137 - Functional Guitar for Music Therapy I Credits: 1
- MUSI 151 - Music Theory and Analysis I Credits: 2
- MUSI 154 - Musicianship Skills I Credits: 1
- MUSI 245 - Brass Methods Credits: 1
- MUSI 246 - Woodwind Methods Credits: 2
- MUSI 247 - Percussion Methods Credits: 1
- MUSI 253 - Music Theory and Analysis II Credits: 2
- MUSI 254 - Music Theory and Analysis III Credits: 2
- MUSI 255 - Music Theory and Analysis IV Credits: 2
- MUSI 256 - Musicianship Skills II Credits: 1
- MUSI 257 - Musicianship Skills III Credits: 1
- MUSI 258 - Musicianship Skills IV Credits: 1
- MUSI 273 - History of Music I Credits: 3
- MUSI 288 - Music Education for Diverse Learners Credits: 3
- MUSI 299 - Diction for Singers I Credits: 1  
voice majors only
- MUSI 300 - Marching Band Field Charting Credits: 1
- MUSI 332 - Vocal Conducting Credits: 1
- MUSI 333 - Instrumental Conducting Credits: 1
- MUSI 334 - Secondary School Music Credits: 2
- MUSI 335 - Elementary School Music Methods Credits: 2
- MUSI 336 - Instrumental Methods Credits: 2
- MUSI 337 - Instrumental Rehearsal Techniques Credits: 2
- MUSI 350 - Computer Technology in Music Credits: 2
- MUSI 351 - Arranging & Orchestration Credits: 2
- MUSI 360 - Keyboard Improvisation Credits: 1  
or
- MUSI 361 - Instrumental Improvisation Credits: 1
- MUSI 373 - History of Music II Credits: 3
- MUSI 473 - History of Music III Credits: 3

## Professional Education - Credits: 24

- CDEV 248 - Human Development and Education Credits: 3
- MUSI 455 - Student Teaching - Music Credits: 12
- SEFE 326 - ELL Strategies and Practice Credits: 3
- SEFE 342 - Educational Psychology for Diverse Learners Credits: 3
- SPED 121 - High Incidence Disabilities Credits: 3

## Footnote

\* See chairperson of Department of Music for an explanation of this requirement.

## Music Performance (BM)

Music Department

BM in Performance/Voice majors must take two semesters of one of the languages most often sung by classical singers: Italian, French or German; or pass a 102 level language proficiency exam.

**Total Degree Credits: 120**

### Specialization: Performance

### Requirements for Music (BM) - Credits: 78

#### Required Courses - Credits: 29

- MUSI 151 - Music Theory and Analysis I Credits: 2
- MUSI 154 - Musicianship Skills I Credits: 1
- MUSI 253 - Music Theory and Analysis II Credits: 2
- MUSI 254 - Music Theory and Analysis III Credits: 2
- MUSI 255 - Music Theory and Analysis IV Credits: 2
- MUSI 256 - Musicianship Skills II Credits: 1
- MUSI 257 - Musicianship Skills III Credits: 1
- MUSI 258 - Musicianship Skills IV Credits: 1
- MUSI 273 - History of Music I Credits: 3
- MUSI 332 - Vocal Conducting Credits: 1
- MUSI 333 - Instrumental Conducting Credits: 1
- MUSI 350 - Computer Technology in Music Credits: 2
- MUSI 351 - Arranging & Orchestration Credits: 2
- MUSI 360 - Keyboard Improvisation Credits: 1
- or
- MUSI 361 - Instrumental Improvisation Credits: 1
- MUSI 373 - History of Music II Credits: 3
- MUSI 431 - Pedagogy Credits: 1
- MUSI 473 - History of Music III Credits: 3

#### Music Electives - Credits: 12

Select from the following. Additional course selections available. Please contact the Music Department or academic adviser.

- MUSI 128 - Applied Alexander Technique Credits: 1

- MUSI 133 - Class Voice Credits: 1
- MUSI 134 - Voice Methods Credits: 1
- MUSI 135 - String Methods Credits: 1
- MUSI 137 - Functional Guitar for Music Therapy I Credits: 1
- MUSI 138 - Functional Guitar for Music Therapy II Credits: 1
- MUSI 233 - Chamber Music Performance Credits: 1
- MUSI 237 - Opera Performance Credits: 1
- MUSI 245 - Brass Methods Credits: 1
- MUSI 246 - Woodwind Methods Credits: 2
- MUSI 247 - Percussion Methods Credits: 1
- MUSI 301 - Women and Music Credits: 3
- MUSI 360 - Keyboard Improvisation Credits: 1
- OR
- MUSI 361 - Instrumental Improvisation Credits: 1
- MUSI 389 - Applied Composition Credits: 1
- MUSI 391 - Applied Electronic Composition Credits: 1
- MUSI 499 - Applied Recital Credits: 1

\* Applied Major - Credits: 24

\* see footnote

\* Applied Minor - Credits: 4

\* see footnote

\* Applied Recital - Credits: 1

\* see footnote

\* Ensemble - Semesters: 8

\* see footnote

## Footnote

\* See chairperson of Department of Music for an explanation of these requirements.

## Music Therapy (BM)

Music Department

Music therapy is a field that uses music along with the personality of the therapist as a treatment for rehabilitating, maintaining, and improving the lives of persons with physical, intellectual, and emotional disabilities. As a member of



the therapeutic team, the music therapist participates in assessing problems, setting treatment goals, and planning and carrying out music experiences to meet these goals.

Career opportunities are available for music therapists in rehabilitation centers, hospitals, community mental health clinics, nursing homes, day care centers, and correctional facilities. Some music therapists establish their own private studios, usually working with clients referred by local health professionals. In addition, some public school systems are beginning to include music therapists in their special education programs.

Music therapy students can be involved in the campus Music Therapy Club, which promotes the profession, offers workshops for members and other interested students, and organizes service projects. Club members also participate in both the regional and national professional student organizations of the American Music Therapy Association. Through this involvement they have opportunities for leadership, scholarships, and participation at professional conferences.

Music therapy students have the opportunity to take field trips and observe music therapy clinical work in their freshman year. Six semesters of further clinical experience in a variety of community settings provide practical application of music therapy course work. A senior practicum course provides an opportunity to mentor and supervise beginning music therapy students in the clinical experience. A required six-month music therapy internship culminates the educational program with placement opportunities in approximately 150 clinical settings throughout the United States. Professional music therapists supervise the internship programs, which meet the training requirements of the American Music Therapy Association. Students may select an internship in settings such as hospitals, clinics, day care facilities, schools, community mental health centers, substance abuse facilities, nursing homes, hospice, rehabilitation centers, and correctional facilities. Several Slippery Rock University alumni have found employment at their internship facility.

The double majors, BM in Performance/BM in Music Education, the BM in Performance/BM in Music Therapy, the BM in Music Education/BM in Music Therapy are available for students who wish to pursue combined degrees. Please see Chairperson for the semester by semester schedule.

## Requirements for the Major - Credits: 74

All prospective music therapy majors must audition with a faculty committee of the Department of Music.

### Required Music Courses - Credits: 52

- Applied Major (7 credits)  
(\* see footnote)
- Applied Minor (6 credits)  
(\* see footnote)
- Ensemble (7 credits)  
(\* see footnote)
- MUSI 137 - Functional Guitar for Music Therapy I Credits: 1
- MUSI 138 - Functional Guitar for Music Therapy II Credits: 1
- MUSI 151 - Music Theory and Analysis I Credits: 2
- MUSI 154 - Musicianship Skills I Credits: 1
- MUSI 247 - Percussion Methods Credits: 1
- MUSI 253 - Music Theory and Analysis II Credits: 2
- MUSI 254 - Music Theory and Analysis III Credits: 2
- MUSI 255 - Music Theory and Analysis IV Credits: 2
- MUSI 256 - Musicianship Skills II Credits: 1

- MUSI 257 - Musicianship Skills III Credits: 1
- MUSI 258 - Musicianship Skills IV Credits: 1
- MUSI 273 - History of Music I Credits: 3
- MUSI 332 - Vocal Conducting Credits: 1
- MUSI 333 - Instrumental Conducting Credits: 1
- MUSI 350 - Computer Technology in Music Credits: 2
- MUSI 351 - Arranging & Orchestration Credits: 2
- MUSI 360 - Keyboard Improvisation Credits: 1
- MUSI 361 - Instrumental Improvisation Credits: 1
- MUSI 373 - History of Music II Credits: 3
- MUSI 473 - History of Music III Credits: 3

### Required Music Therapy Courses - Credits: 22

- MUSI 127 - Orientation to Music Therapy Credits: 1
- MUSI 199 - Fundamental Skills in Music Therapy Credits: 1
- MUSI 228 - Therapeutic Musical Strategies Credits: 1
- MUSI 236 - Music Therapy Assessment, Measurement and Evaluation Credits: 2
- MUSI 312 - Music Therapy for Children Credits: 3
- MUSI 327 - Psychology of Music Credits: 3
- MUSI 330 - Clinical Integration Credits: 0/1
- MUSI 428 - Music Therapy Advanced Topics: Supervision, Ethics, and Issues of Diversity Credits: 3
- MUSI 433 - Clinical Integration Credits: 1  
six semesters of clinical experience are required
- MUSI 440 - Music Therapy for Adult Clients Credits: 3
- MUSI 450 - Music Therapy Internship Credits: Up to 12

### Other Courses Required to Acquire Professional Competencies the American Music Therapy Association

3 credits from SASW, PSYC 100 or 105, 276, and 3 additional credits of psychology.

- BIOL 216 - Anatomy and Physiology/Lab Credits: 3  
or
- BIOL 217 - Anatomy and Physiology/Lab Credits: 3

### Footnote

\* See chairperson of Department of Music for an explanation of these requirements.

## Philosophy

003 Spotts World Culture Building  
724-738-2071

Philosophy

**Chair**

Bradley Wilson

**Secretary**

Herman Boler

**Faculty**

Andrew Colvin, Katherine Cooklin, Richard Findler, Tom Sparrow, Bradley Wilson

*“SRU is an excellent place to study philosophy because the faculty members are committed to student learning and student success- both in the discipline of philosophy and in life. The education I have received has been valuable to me because it has taught me to critically question the world by looking at it from many different p.”*

**Megan Kuhr**  
**Class of ‘12**  
**Attending Kent State University**  
**M.L.I.S. Program**

*“Much of the success that I’ve had as a law student is attributable to the analytic and argumentative skills I’ve developed as a student in the Slippery Rock University Philosophy Department.”*

**Bernard Kwitowski**  
**Class of ‘01**  
**Attorney, Thomas, Thomas and Hafer, LLP**  
**Super Lawyers Rising Stars 2010**

Philosophy teaches students to inquire in a systematic way into fundamental questions connected with one’s relationships to oneself, others, society, and the world. It helps students pull their studies together into a unified project and to think about broader perspectives and implications, which are often lost sight of in specialized study. In particular, philosophy helps students to develop the following critical thinking essential to succeeding in academics, in the workplace, and in ones life.

- Analytical thinking: logical skills involving the ability to break down complex ideas and problems into their elements and to perform reasoning tasks efficiently and correctly.
- Evaluative thinking: skills of making intelligent ethical, social, esthetic, and religious value judgments related to fundamental issues in contemporary society and their implications for students’ personal and professional lives.
- Synthetic thinking: skills of pulling together a variety of views and perspectives and resolving intellectual and practical conflicts related to the many competing ideas and information now readily available.

Philosophy prepares students for advanced studies in its own and in related fields, especially law. It is also good preparation for many careers that require a high level of logical and linguistic ability, ethical awareness, and the capacity to form sound interpretative judgments within complex and dynamic situations, on a local or global scale. Because of the strong emphasis on logical reasoning and critical thinking, philosophy majors are well suited to deal with rapid technological change. New roles have opened up in health care, government, education, business, environmental fields, and science and technology for those with professional training in ethics. Traditional philosophical education has been valuable for success in:

- the sciences, especially in relation to their theoretical foundations and their social impact;
- the comparative study of cultures
- law and policy studies
- business and the helping professions.

Many students combine philosophy with another field. Slippery Rock University’s liberal studies program relies extensively on courses in philosophy to afford an important foundation for an undergraduate education.

Students have the opportunity to participate in frequent trips to conferences, join the Philosophy Club and achieve membership in the Philosophy Honorary.

## **Minor in Ethics**

Philosophy Department

This program requires eighteen credits in philosophy with at least nine credits at the 300 level. Courses should be chosen in consultation with a member of the Philosophy Department.

### **Required Courses**

- PHIL 113 - Introduction to Logic Credits: 3
- PHIL 123 - Ethics Credits: 3

Select 2 of the following courses:

- PHIL 324 - Environmental Ethics Credits: 3
- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PHIL 326 - Business Ethics Credits: 3

Select one course from the following:

- PHIL 163 - Philosophy in Literature Credits: 3
- PHIL 170 - American Philosophy Credits: 3
- PHIL 171 - Philosophy of Human Existence Credits: 3

Select one course from the following (may not be used above):

- PHIL 324 - Environmental Ethics Credits: 3
- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PHIL 326 - Business Ethics Credits: 3
- PHIL 331 - Social and Political Philosophy Credits: 3
- PHIL 335 - Philosophy of Law and Justice Credits: 3
- PHIL 343 - Asian Philosophy Credits: 3

## **Minor in Philosophy**

Philosophy Department

The Minor in Philosophy requires fifteen semester hours in philosophy with at least nine credits at the 300 level or higher. Courses should be chosen in consultation with a member of the Philosophy Department.

## **Philosophy (BA)**

## Requirements for the Major - Credits: 33-36

### B.A. in Philosophy - Credits: 33

#### Core Requirements - Credits: 21

- PHIL 113 - Introduction to Logic Credits: 3  
OR
- PHIL 313 - Symbolic Logic Credits: 3
- PHIL 123 - Ethics Credits: 3
- PHIL 331 - Social and Political Philosophy Credits: 3  
OR
- PHIL 335 - Philosophy of Law and Justice Credits: 3
- PHIL 341 - Philosophy of Religion Credits: 3  
OR
- PHIL 343 - Asian Philosophy Credits: 3
- PHIL 371 - History of Western Philosophy I Credits: 3
- PHIL 372 - History of Western Philosophy II Credits: 3
- PHIL 375 - Existentialism and Phenomenology Credits: 3  
OR
- PHIL 376 - Analytic Philosophy Credits: 3

#### Philosophy Electives - Credits: 12

At least 3 credits must be at the 300 level or higher

- PHIL 101 - Introduction to Philosophy Credits: 3
- PHIL 140 - World Religions Credits: 3
- PHIL 163 - Philosophy in Literature Credits: 3
- PHIL 170 - American Philosophy Credits: 3
- PHIL 171 - Philosophy of Human Existence Credits: 3
- PHIL 261 - Philosophy of Art Credits: 3
- PHIL 324 - Environmental Ethics Credits: 3
- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PHIL 326 - Business Ethics Credits: 3
- PHIL 331 - Social and Political Philosophy Credits: 3
- PHIL 335 - Philosophy of Law and Justice Credits: 3
- PHIL 341 - Philosophy of Religion Credits: 3
- PHIL 343 - Asian Philosophy Credits: 3
- PHIL 351 - Philosophy of Natural Science Credits: 3
- PHIL 373 - Modern Authors and Issues Credits: 3
- PHIL 375 - Existentialism and Phenomenology Credits: 3
- PHIL 376 - Analytic Philosophy Credits: 3

- PHIL 490 - Independent Study Credits: 1-3
- PHIL 498 - Selected Topics Credits: 1-3

## Applied Philosophy Track - Credits: 36

### Philosophy Core Requirements - Credits: 18

- PHIL 113 - Introduction to Logic Credits: 3  
OR
- PHIL 313 - Symbolic Logic Credits: 3
- PHIL 123 - Ethics Credits: 3
- PHIL 324 - Environmental Ethics Credits: 3  
OR
- PHIL 325 - Medical/Health Care Ethics Credits: 3  
OR
- PHIL 326 - Business Ethics Credits: 3
- PHIL 331 - Social and Political Philosophy Credits: 3  
OR
- PHIL 335 - Philosophy of Law and Justice Credits: 3
- PHIL 371 - History of Western Philosophy I Credits: 3
- PHIL 372 - History of Western Philosophy II Credits: 3

### Non-Profit Leadership Core Requirements - Credits: 12

- PROF 205 - Accounting for Decision Makers Credits: 3
- PROF 220 - Introduction to Nonprofit Leadership Credits: 3
- PROF 320 - Community Change and Development Credits: 3
- PROF 325 - Social and Ethical Issues in Philanthropy and Fundraising Credits: 3

### Philosophy Electives - Credits: 6

At least 3 credits must be at the 300 level or higher

- PHIL 101 - Introduction to Philosophy Credits: 3
- PHIL 140 - World Religions Credits: 3
- PHIL 163 - Philosophy in Literature Credits: 3
- PHIL 170 - American Philosophy Credits: 3
- PHIL 171 - Philosophy of Human Existence Credits: 3
- PHIL 261 - Philosophy of Art Credits: 3
- PHIL 324 - Environmental Ethics Credits: 3
- PHIL 325 - Medical/Health Care Ethics Credits: 3
- PHIL 326 - Business Ethics Credits: 3
- PHIL 331 - Social and Political Philosophy Credits: 3
- PHIL 335 - Philosophy of Law and Justice Credits: 3
- PHIL 341 - Philosophy of Religion Credits: 3
- PHIL 343 - Asian Philosophy Credits: 3
- PHIL 351 - Philosophy of Natural Science Credits: 3

- PHIL 373 - Modern Authors and Issues Credits: 3
- PHIL 375 - Existentialism and Phenomenology Credits: 3
- PHIL 376 - Analytic Philosophy Credits: 3
- PHIL 490 - Independent Study Credits: 1-3
- PHIL 498 - Selected Topics Credits: 1-3

## Political Science

209 Spotts World Culture Building  
724-738-2075

Political Science

### Chair

Mark Daniels

### Secretary

LuAnn Znosko

### Faculty

George Brown, Mark Daniels, Heather Frederick, Donald Kerchis, Richard Martin, Daniel McIntosh, Sharon Sykora

*“Unlike the faculty at a lot of colleges and universities these days, the faculty at SRU was always incredibly accessible and helpful, always willing to discuss intellectual and social issues, and giving of their time on a personal level, as well. I’ve found that the opportunities I had to work one-on-one with professors like Rich Martin, Carol Prorok, and Bernie Freyberg served as a solid foundation for the student-faculty interaction I experienced at Yale Law School. My professors at SRU never allowed me to become complacent, and always challenged me to discover something new. For those who have the initiative to forge independent relationships with faculty at SRU, the rewards are terrific.”*

**M. Lorraine Ford '94**  
**Truman Scholar (Pa.) '93**  
**Yale Law School '98**  
**Attorney, Morrison & Foerster LLP (New York, NY)**

## Minor in American Politics

Political Science Department

### Requirements for the Minor - Credits: 18

At least 9 of the required 18 hours must be at the 300 level or above.

A minimum of 18 credits from the following:

- POLS 101 - American National Government Credits: 3
- POLS 200 - State and Local Government Credits: 3
- POLS 224 - Civil Liberties Credits: 3
- POLS 321 - The Presidency Credits: 3
- POLS 323 - The Courts Credits: 3
- POLS 325 - The Congress Credits: 3

- POLS 327 - Public Opinion and Political Attitudes Credits: 3
- POLS 354 - Seminar in Religion and Politics Credits: 3
- POLS 360 - Parties and Elections Credits: 3
- POLS 375 - Women and Politics Credits: 3
- POLS 403 - Constitutional Law Credits: 3

## **Minor in Comparative Politics/International Relations**

Political Science Department

The minor requires the completion of a minimum of 18 credit hours.

- At least 9 credits must be taken at the 300 level or above.
- 9 credits from the Comparative Politics block and 9 credits from the International Relations block.

### **Requirements for the Minor - Credits: 18**

#### **Three courses from Comparative Politics:**

- POLS 263 - Introduction to Comparative Politics Credits: 3
- POLS 331 - Seminar in Japanese Politics Credits: 3
- POLS 366 - Seminar in Chinese Politics Credits: 3
- POLS 369 - Politics of Developing Areas Credits: 3
- POLS 371 - Politics in Asia Credits: 3

#### **Three courses from International Relations and Politics:**

- POLS 103 - International Relations Credits: 3
- POLS 220 - Foreign Policy Credits: 3
- POLS 322 - The United Nations and International Law Credits: 3
- POLS 365 - International Political Economy Credits: 3
- POLS 367 - National and International Security: Problems and Issues Credits: 3

## **Minor in International Affairs**

Political Science Department

### **Requirements for the Minor - Credits: 18**

A total of 18 credit hours is required, plus demonstration of language skills at or above the 103 level.

The student is required to have at least one international educational experience, as approved by that student's academic advisor and the director of the minor in global studies. This requirement may be met by coursework abroad, or through an international service project. The requirement may be waived in cases where a student can demonstrate financial hardship or a comparable international experience.



## 100-Level Courses - Credits: 6

Select from the following:

- GES 105 - World Regional Geography Credits: 3
- HIST 153 - Contemporary World History Credits: 3
- POLS 103 - International Relations Credits: 3
- PROF 105 - Economics of Social Issues Credits: 3

## Global Electives - Credits: 9

At least 6 hours must be at the 300 level or above. Select from the following:

- COMM 217 - Intercultural Communication Credits: 3
- ECON 326 - International Economics Credits: 3
- ENGL 263 - World Literature Credits: 3
- ENV5 440 - Science, Technology and the Environment Credits: 3
- FIN 427 - International Financial Management Credits: 3
- FIN 430 - International Banking Credits: 3
- GES 242 - Geography of Religion Credits: 3
- GES 302 - Cultural Geography Credits: 3
- GES 315 - Cartography I Credits: 3
- GES 331 - Economic Geography Credits: 3
- GES 415 - Cartography II Credits: 3
- HIST 330 - Warfare in the Twentieth Century Credits: 3
- HIST 451 - U.S. Foreign Relations to 1890 Credits: 3
- HIST 452 - U.S. Foreign Relations Since 1890 Credits: 3
- HLTH 311 - International Health Credits: 3
- POLS 220 - Foreign Policy Credits: 3
- POLS 263 - Introduction to Comparative Politics Credits: 3
- POLS 322 - The United Nations and International Law Credits: 3
- POLS 365 - International Political Economy Credits: 3
- POLS 367 - National and International Security: Problems and Issues Credits: 3

## Demonstration of Language Competence

Demonstration of language skill may be by exam, by successful completion of coursework, or by credit for a language class above the 103 level. Non-native speakers in English may substitute demonstrated competence in English. Select from: Chinese, French, German, Italian, Japanese, Korean, Russian, and Spanish.

## Foreign Cultural, Historical, or Political Studies - Credits: 3

Choose from the following:

- CHIN 306 - Survey of Chinese Civilization and Culture Credits: 3
- ENGL 316 - Asian Film Credits: 3
- FREN 306 - Modern France and Francophone Identities Credits: 3
- GES 303 - Asia Credits: 3
- GES 308 - Europe Credits: 3
- GES 309 - Africa Credits: 3

- GERM 305 - German Civilization Credits: 3
- GERM 306 - Modern German Civilization Credits: 3
- HIST 306 - Russia Since 1855 Credits: 3
- HIST 332 - Britain Since 1689 Credits: 3
- HIST 352 - Latin America Since 1830 Credits: 3
- HIST 362 - Africa North of the Zambezi Credits: 3
- HIST 363 - Southern Africa Credits: 3
- HIST 381 - East Asian Military Traditions Credits: 3
- HIST 382 - Modern Asian Pacific Rim Credits: 3
- HIST 386 - Modern China Credits: 3
- HIST 427 - Nineteenth Century Europe Credits: 3
- HIST 462 - The Contemporary Middle East Credits: 3
- KORN 306 - Modern Korean Civilization Credits: 3
- POLS 331 - Seminar in Japanese Politics Credits: 3
- POLS 348 - The Holocaust: Genocide and Political Violence Credits: 3
- POLS 366 - Seminar in Chinese Politics Credits: 3
- POLS 371 - Politics in Asia Credits: 3
- RUSS 306 - The Challenge of Russian Legacy Credits: 3
- SPAN 305 - Spanish Civilization Credits: 3
- SPAN 335 - Women in Hispanic Literature Credits: 3
- SPAN 431 - Spanish Literature - Medieval to 18th Century Credits: 3
- SPAN 432 - Spanish-American Literature: Precolumbian to 19th Century Credits: 3

## **Minor in Political Science**

Political Science Department

### **Required Courses - Credits: 18**

At least 9 of the 18 required credits must be at the 300 level or above. No more than 9 of the 18 required credits may be in any one of the area elective blocks.

### **Comparative Politics - no more than 9 credits**

- POLS 263 - Introduction to Comparative Politics Credits: 3
- POLS 331 - Seminar in Japanese Politics Credits: 3
- POLS 366 - Seminar in Chinese Politics Credits: 3
- POLS 369 - Politics of Developing Areas Credits: 3
- POLS 371 - Politics in Asia Credits: 3

### **International Relations & Politics - no more than 9 credits**

- POLS 103 - International Relations Credits: 3
- POLS 220 - Foreign Policy Credits: 3
- POLS 322 - The United Nations and International Law Credits: 3

- POLS 365 - International Political Economy Credits: 3
- POLS 367 - National and International Security: Problems and Issues Credits: 3

### American Political Institutions - no more than 9 credits

- POLS 101 - American National Government Credits: 3
- POLS 200 - State and Local Government Credits: 3
- POLS 321 - The Presidency Credits: 3
- POLS 323 - The Courts Credits: 3
- POLS 325 - The Congress Credits: 3
- POLS 354 - Seminar in Religion and Politics Credits: 3

### Political Theory and Thought - no more than 9 credits

- POLS 215 - Introduction to Political Theory Credits: 3
- POLS 341 - Classical Political Thought Credits: 3
- POLS 343 - Modern Political Thought Credits: 3
- POLS 345 - Contemporary Political Thought Credits: 3
- POLS 349 - Utopian Experiments: Issues of Gender and Power Credits: 3

### Public Policy and Law - no more than 9 credits

- POLS 224 - Civil Liberties Credits: 3
- POLS 255 - Introduction to Public Policy Credits: 3
- POLS 340 - The Historical and Political Legacies of the Vietnam Era Credits: 3
- POLS 348 - The Holocaust: Genocide and Political Violence Credits: 3
- POLS 403 - Constitutional Law Credits: 3

### Political Behavior - no more than 9 credits

- POLS 310 - Research Methods Credits: 3
- POLS 327 - Public Opinion and Political Attitudes Credits: 3
- POLS 329 - Political Learning Credits: 3
- POLS 333 - The Political Film Credits: 3
- POLS 354 - Seminar in Religion and Politics Credits: 3
- POLS 360 - Parties and Elections Credits: 3
- POLS 375 - Women and Politics Credits: 3
- POLS 444 - Capstone: Political Analysis Credits: 3

## **Political Science (BA)**

Political Science Department

Are you interested in American politics, international affairs, or critical issues such as health, the environment, and civil rights? Do you want to understand theories concerning the ideal government and how power and resources are allocated in society? Do you want to study these subjects and pursue a career based on your interest? If so, you should consider studying political science.

Political science majors enjoy a versatility of skills and a marvelous range of exciting careers in federal, state and local governments; law; business; international organizations; nonprofit associations and organizations; campaign management and polling; journalism; pre-collegiate education; electoral politics; research and university and college teaching.

Members of the department assist students in developing a philosophy of life, acquiring meaningful civic roles, and learning the skills that are basic to political, social, and economic success. The preparation of students for responsible citizenship in the academic community is encouraged through participation in department and university affairs. Students are encouraged to participate in the Model United Nations program and the Model North Atlantic Treaty Organization program. Other organizations include Amnesty International, Americans for Informed Democracy, and the university's annual Holocaust Remembrance program. Students also have the opportunity to participate in Law Career Day conferences and travel and study abroad. Practical experience in politics is provided through class activities and the internship program that involves students in the work-a-day worlds of local communities, as well as state and national governments and businesses in Harrisburg and Washington, D.C.

## Requirements for the Major - Credits: 39

### Candidates for the Bachelor of Arts in Political Science Degree are Required:

1. to complete 39 credit hours of course work
2. to complete two courses in four of six area listed below.
3. to complete POLS 101, POLS 310, POLS 444.
4. to complete 21 hours in political science at the 300 or 400 level.
5. to complete 40% of the total number of hours counted towards graduation at the 300 or 400 level. (In order to accomplish this, students are strongly urged to use 300 or 400 level courses to complete their liberal studies enrichment courses.)

### In Addition, Students:

1. may complete an internship, POLS 450, of up to twelve hours, but not more than six of those hours may count toward the minimum requirement of thirty-six hours for completion of the major. Alternatively a student might complete the Harrisburg Internship Program, Pols 451, 452, and 454; but, again not more than six of those hours may count toward the minimum requirement of thirty-six hours for the completion of the major.
2. may elect to take as many elective courses beyond the required minimums as they choose, but not more than fifteen hours in any one block may count toward the minimum requirement of thirty-six hours for completion of the major.
3. earning a bachelor of arts degree must demonstrate a competency at the equivalent of the 103 level in a foreign language.

### American Political Institutions:

- POLS 200 - State and Local Government Credits: 3
- POLS 321 - The Presidency Credits: 3
- POLS 323 - The Courts Credits: 3
- POLS 325 - The Congress Credits: 3

## Political Theory & Thought:

- POLS 215 - Introduction to Political Theory Credits: 3
- POLS 341 - Classical Political Thought Credits: 3
- POLS 343 - Modern Political Thought Credits: 3
- POLS 345 - Contemporary Political Thought Credits: 3
- POLS 349 - Utopian Experiments: Issues of Gender and Power Credits: 3

## International Relations & Politics:

- POLS 103 - International Relations Credits: 3
- POLS 220 - Foreign Policy Credits: 3
- POLS 322 - The United Nations and International Law Credits: 3
- POLS 350 - Transnational Terrorism Credits: 3
- POLS 365 - International Political Economy Credits: 3
- POLS 367 - National and International Security: Problems and Issues Credits: 3

## Comparative Politics:

- POLS 263 - Introduction to Comparative Politics Credits: 3
- POLS 331 - Seminar in Japanese Politics Credits: 3
- POLS 366 - Seminar in Chinese Politics Credits: 3
- POLS 369 - Politics of Developing Areas Credits: 3
- POLS 371 - Politics in Asia Credits: 3
- POLS 370 - Latin American Politics and Development Credits: 3

## Public Policy & Law:

- POLS 224 - Civil Liberties Credits: 3
- POLS 255 - Introduction to Public Policy Credits: 3
- POLS 340 - The Historical and Political Legacies of the Vietnam Era Credits: 3
- POLS 342 - Civil Rights Seminar Credits: 3
- POLS 348 - The Holocaust: Genocide and Political Violence Credits: 3
- POLS 359 - Policy Analysis and Evaluation Credits: 3
- POLS 403 - Constitutional Law Credits: 3

## Political Behavior:

- POLS 327 - Public Opinion and Political Attitudes Credits: 3
- POLS 329 - Political Learning Credits: 3
- POLS 333 - The Political Film Credits: 3
- POLS 351 - Politics of Race Credits: 3
- POLS 354 - Seminar in Religion and Politics Credits: 3
- POLS 356 - Gay and Lesbian Politics Credits: 3
- POLS 360 - Parties and Elections Credits: 3
- POLS 375 - Women and Politics Credits: 3

# Theatre

300-C Miller Auditorium  
724-738-2090

Theatre

## **Chair**

Gordon Phetteplace

## **Secretary**

Becky Lindey

## **Technical Director**

Michael Boone

## **Faculty**

Rebecca Morrice, Gordon Phetteplace, Colleen Reilly, David Skeelee, Laura Smiley

Studies and experiences in the theatre tap some of the deepest veins of human self-expression and confirm the abiding hold this unique art form has on thoughtful and imaginative people everywhere. Courses in theatre history examine the origins of the art and explore the ways in which theatre has responded to and developed from its times. Courses in acting or in the crafts of theatre enhance the skills of students, whether they seek eventual performance careers or simply wish to be more knowledgeable audience members. The performance of great dramatic literature enables students to touch intimately some of the enduring ideas of civilization: love, death, hope, ambition, loyalty. People who succeed in the theatre have learned how to cooperate, how to work within deadlines and constraints, how to liberate and control expressiveness, and how to deal constructively with the tensions of performance.

The Department of Theatre sponsors an active co-curricular production program in a well-equipped theatre on campus. Plays of wide-ranging interest and appeal are produced each academic year. Recent productions include Cabaret, Hedda Gabler, As You Like It, Inspecting Carol, An Evening with Sam Shepard, The Tempest, Stop Kiss, Loot, Tallgrass Gothic, This is Our Youth, Little Shop of Horrors, and Macbeth.

## **Minor in Theatre**

Theatre Department

### **Requirements for a Minor in Theatre - Credits: 24**

#### **Required Courses - 11 credits**

- THEA 131 - Fundamentals of Acting Credits: 3
- THEA 132 - Stagecraft Credits: 3
- THEA 151 - Rehearsal and Production Credits: 1  
2 credits required
- THEA 281 - Survey of Dramatic Literature I Credits: 3  
or THEA283 - Survey of Dramatic Literature II

## Electives - 13 credits

Choose 13 credits (Seven credits must be at the 300 level or above)

- THEA 141 - Introduction to the Theatre Credits: 3
- THEA 151 - Rehearsal and Production Credits: 1
- THEA 159 - Introduction to Arts Administration Credits: 3
- THEA 215 - Drawing/Drafting/CAD Credits: 3
- THEA 222 - Acting II Credits: 3
- THEA 235 - Costume Technology Credits: 3
- THEA 259 - Studies in Audience Development Credits: 3
- THEA 269 - Playwriting Credits: 3
- THEA 281 - Survey of Dramatic Literature I Credits: 3
- THEA 283 - Survey of Dramatic Literature II Credits: 3
- THEA 322 - Acting Technique Credits: 3
- THEA 324 - Stage Makeup Credits: 3
- THEA 328 - Acting Shakespeare Credits: 3
- THEA 329 - Shakespeare Tour Credits: 3
- THEA 330 - Voice and Movement for the Actor Credits: 3
- THEA 332 - Advanced Stagecraft Credits: 3
- THEA 333 - Scene Design Credits: 3
- THEA 334 - Stage Lighting Credits: 3
- THEA 335 - Costume Design and History Credits: 3
- THEA 337 - Directing Credits: 3
- THEA 345 - Stage Management and Safety Credits: 3
- THEA 355 - Projects in Theatre Credits: 1 to 2
- THEA 369 - Advanced Playwriting Credits: 3
- THEA 370 - Playwriting Genres and Styles Credits: 3
- THEA 372 - Senior Seminar in Playwriting Credits: 3
- THEA 393 - History of Theatre Design and Architecture Credits: 3
- THEA 394 - Theories of Acting and Directing Credits: 3
- THEA 425 - Professional Theatre Practice Credits: 3
- THEA 450 - Internship Credits: Up to 12
- THEA 490 - Independent Study Credits: 1 to 3
- THEA 498 - Selected Topics Credits: 1 to 3

## Theatre (BA)

Theatre Department

Requirements for the Theatre Bachelor of Arts - Credits: 40

Required Core Courses for all Specializations - Credits: 22

- THEA 131 - Fundamentals of Acting Credits: 3
- THEA 132 - Stagecraft Credits: 3

- THEA 151 - Rehearsal and Production Credits: 1  
(Four credits required)
- THEA 281 - Survey of Dramatic Literature I Credits: 3
- THEA 283 - Survey of Dramatic Literature II Credits: 3
- THEA 337 - Directing Credits: 3
- THEA 425 - Professional Theatre Practice Credits: 3

## Select One of the Following:

### Specialization: Acting - Credits: 18

#### Required Courses - Credits: 18

- THEA 222 - Acting II Credits: 3
- THEA 322 - Acting Technique Credits: 3
- THEA 324 - Stage Makeup Credits: 3
- THEA 328 - Acting Shakespeare Credits: 3
- THEA 330 - Voice and Movement for the Actor Credits: 3
- THEA 394 - Theories of Acting and Directing Credits: 3

#### Electives - Credits: 0

- THEA 141 - Introduction to the Theatre Credits: 3
- THEA 159 - Introduction to Arts Administration Credits: 3
- THEA 215 - Drawing/Drafting/CAD Credits: 3
- THEA 235 - Costume Technology Credits: 3
- THEA 259 - Studies in Audience Development Credits: 3
- THEA 269 - Playwriting Credits: 3
- THEA 322 - Acting Technique Credits: 3
- THEA 329 - Shakespeare Tour Credits: 3
- THEA 332 - Advanced Stagecraft Credits: 3
- THEA 333 - Scene Design Credits: 3
- THEA 334 - Stage Lighting Credits: 3
- THEA 335 - Costume Design and History Credits: 3
- THEA 339 - New Play Development Credits: 3
- THEA 340 - International Theatre Experience Credits: 3
- THEA 345 - Stage Management and Safety Credits: 3
- THEA 355 - Projects in Theatre Credits: 1 to 2
- THEA 369 - Advanced Playwriting Credits: 3
- THEA 370 - Playwriting Genres and Styles Credits: 3
- THEA 372 - Senior Seminar in Playwriting Credits: 3
- THEA 393 - History of Theatre Design and Architecture Credits: 3
- THEA 450 - Internship Credits: Up to 12
- THEA 490 - Independent Study Credits: 1 to 3
- THEA 498 - Selected Topics Credits: 1 to 3



## Specialization: Arts Administration -Credits 18

### Required Courses - Credits: 18

- PROF 220 - Introduction to Nonprofit Leadership Credits: 3
- PROF 325 - Social and Ethical Issues in Philanthropy and Fundraising Credits: 3
- THEA 159 - Introduction to Arts Administration Credits: 3
- THEA 259 - Studies in Audience Development Credits: 3
- THEA 393 - History of Theatre Design and Architecture Credits: 3  
or THEA394, Theories of Acting and Directing
- THEA 450 - Internship Credits: Up to 12

### Electives - credits 0

- THEA 141 - Introduction to the Theatre Credits: 3
- THEA 215 - Drawing/Drafting/CAD Credits: 3
- THEA 222 - Acting II Credits: 3
- THEA 235 - Costume Technology Credits: 3
- THEA 269 - Playwriting Credits: 3
- THEA 322 - Acting Technique Credits: 3
- THEA 324 - Stage Makeup Credits: 3
- THEA 328 - Acting Shakespeare Credits: 3
- THEA 329 - Shakespeare Tour Credits: 3
- THEA 330 - Voice and Movement for the Actor Credits: 3
- THEA 332 - Advanced Stagecraft Credits: 3
- THEA 333 - Scene Design Credits: 3
- THEA 334 - Stage Lighting Credits: 3
- THEA 335 - Costume Design and History Credits: 3
- THEA 339 - New Play Development Credits: 3
- THEA 340 - International Theatre Experience Credits: 3
- THEA 345 - Stage Management and Safety Credits: 3
- THEA 355 - Projects in Theatre Credits: 1 to 2
- THEA 369 - Advanced Playwriting Credits: 3
- THEA 370 - Playwriting Genres and Styles Credits: 3
- THEA 372 - Senior Seminar in Playwriting Credits: 3
- THEA 394 - Theories of Acting and Directing Credits: 3
- THEA 450 - Internship Credits: Up to 12
- THEA 490 - Independent Study Credits: 1 to 3
- THEA 498 - Selected Topics Credits: 1 to 3

## Specialization: Design/Technology - Credits: 27

### Required Courses - Credits: 15

- THEA 215 - Drawing/Drafting/CAD Credits: 3
- THEA 235 - Costume Technology Credits: 3

- THEA 333 - Scene Design Credits: 3
- THEA 334 - Stage Lighting Credits: 3
- or
- THEA 335 - Costume Design and History Credits: 3
- THEA 393 - History of Theatre Design and Architecture Credits: 3

### Electives - Credits: 3

(All must be 300 level or above)

- THEA 322 - Acting Technique Credits: 3
- THEA 324 - Stage Makeup Credits: 3
- THEA 328 - Acting Shakespeare Credits: 3
- THEA 329 - Shakespeare Tour Credits: 3
- THEA 330 - Voice and Movement for the Actor Credits: 3
- THEA 332 - Advanced Stagecraft Credits: 3
- THEA 334 - Stage Lighting Credits: 3
- \* see footnote
- THEA 335 - Costume Design and History Credits: 3
- \* see footnote
- THEA 339 - New Play Development Credits: 3
- THEA 340 - International Theatre Experience Credits: 3
- THEA 345 - Stage Management and Safety Credits: 3
- THEA 355 - Projects in Theatre Credits: 1 to 2
- THEA 369 - Advanced Playwriting Credits: 3
- THEA 370 - Playwriting Genres and Styles Credits: 3
- THEA 372 - Senior Seminar in Playwriting Credits: 3
- THEA 394 - Theories of Acting and Directing Credits: 3
- THEA 450 - Internship Credits: Up to 12
- THEA 490 - Independent Study Credits: 1 to 3
- THEA 498 - Selected Topics Credits: 1 to 3

### Footnote

\*Courses may not be used to fulfill more than one requirement.

**Specialization: Playwriting - THIS SPECIALIZATION IS ON MORATORIUM AS OF FALL 2012 AND ACCEPTING NO NEW STUDENTS**

### Required Courses - Credits: 12

- THEA 269 - Playwriting Credits: 3
- THEA 369 - Advanced Playwriting Credits: 3
- THEA 370 - Playwriting Genres and Styles Credits: 3
- THEA 372 - Senior Seminar in Playwriting Credits: 3

### Major Electives - Credits: 6

Choose 6 credits. All must be 300-level or above.

- THEA 322 - Acting Technique Credits: 3
- THEA 324 - Stage Makeup Credits: 3
- THEA 328 - Acting Shakespeare Credits: 3
- THEA 329 - Shakespeare Tour Credits: 3
- THEA 330 - Voice and Movement for the Actor Credits: 3
- THEA 332 - Advanced Stagecraft Credits: 3
- THEA 333 - Scene Design Credits: 3
- THEA 334 - Stage Lighting Credits: 3
- THEA 335 - Costume Design and History Credits: 3
- THEA 339 - New Play Development Credits: 3
- THEA 340 - International Theatre Experience Credits: 3
- THEA 345 - Stage Management and Safety Credits: 3
- THEA 355 - Projects in Theatre Credits: 1 to 2
- THEA 393 - History of Theatre Design and Architecture Credits: 3
- THEA 394 - Theories of Acting and Directing Credits: 3
- THEA 450 - Internship Credits: Up to 12
- THEA 490 - Independent Study Credits: 1 to 3
- THEA 498 - Selected Topics Credits: 1 to 3

## Women's Studies

007E Strain Behavioral Science Building  
724-738-2992

### Women's Studies

The Women's Studies Program, a multi-disciplinary approach to learning, seeks to correct the focus of an academic establishment that has traditionally ignored, minimized, or excluded the work of women in most branches of knowledge and areas of experience, both within and outside of the classroom.

#### **Director**

Jace Condrary (Acting Director)

The Women's Studies program is a multidisciplinary approach to teaching and learning. Its intent is to correct the focus of the academic establishment that has traditionally ignored, minimized, or excluded the work of women in most branches of knowledge and areas of experience. Its positive approach is a reassessment of learning and culture, and its goal is the assimilation of the best efforts of women into an integrated and equitable society. The program is not intended to replace one's major but rather to strengthen one's undergraduate preparation through a concentration of various aspects of Women's Studies. A concentration in Women's Studies prepares students for graduate study not only in that area but also any academic area that requires a fully balanced, gender-sensitive understanding of society and culture. Also, Women's Studies prepares students to interact in a professional world that reflects the marked changes occurring in traditional gender roles.

## Minor in Women's Studies

### Women's Studies

The Women's Studies program is a multidisciplinary approach to teaching and learning. Its intent is to correct the focus of the academic establishment that has traditionally ignored, minimized, or excluded the work of women in most branches of knowledge and areas of experience. Its positive approach is a reassessment of learning and culture, and its goal is the assimilation of the best efforts of women into an integrated and equitable society. The program is not intended to replace one's major but rather to strengthen one's undergraduate preparation through a concentration of various aspects of Women's Studies. A concentration in Women's Studies prepares students for graduate study not only in that area, but also any area that requires a fully balanced, gender-sensitive understanding of society and culture. Also, Women's Studies prepares students to interact in a professional world that reflects the marked changes occurring in traditional gender roles.

## Program Requirements - Credits: 15

Currently, student may earn a minor in Women's Studies by taking fifteen credits, which must include WMST 115 and six credits numbered at the 300 level or above from the following courses, and achieving a GPA of 2.000 or better.

In addition, students may earn a Document of Academic Achievement in Women's Studies by earning twelve credits from the following courses with a minimum GPA of 2.000.

- EGEO 368 - Women in Science Credits: 3
- ENGL 210 - Interpreting Literature Credits: 3  
(designated sections)
- ENGL 243 - Literature of the Women's Movement Credits: 3
- GERO 425 - Women and Aging Credits: 3
- GES 105 - World Regional Geography Credits: 3
- GES 361 - Gender & the Environment Credits: 3
- HIST 318 - Gender and Sexuality in European Society Credits: 3
- HIST 319 - History of Women to 1750 Credits: 3
- HIST 320 - History of Women from 1750 to the Present Credits: 3
- HIST 442 - Studies in U.S. Women's History Credits: 3
- HLTH 211 - Women's Health Issues Credits: 3
- HONR 386 - The Great Books Credits: 3
- HONR 387 - The Great Books Credits: 3
- MUSI 301 - Women and Music Credits: 3
- POLS 349 - Utopian Experiments: Issues of Gender and Power Credits: 3
- POLS 375 - Women and Politics Credits: 3
- PROF 339 - Gender Roles and Society Credits: 3
- PROF 360 - Women in Asian Societies Credits: 3
- PSYC 300 - Psychology of Gender Credits: 3
- PSYC 315 - Psychology of Lesbian and Gay Identities Credits: 3
- WMST 115 - Introduction to Women's Studies Credits: 3
- WMST 415 - Feminist Perspectives in the Disciplines Credits: 3
- WMST 450 - Internship Credits: Up to 12
- WMST 490 - Independent Study Credits:

## English as Second Language

The English as a Second Language (ESL) Program at Slippery Rock University (SRU) is intended for non-native speakers of English who seek admission to an American college or university. Our curriculum helps prepare students for success in undergraduate or graduate studies by focusing on the development of their English language skills, their academic preparedness for an American university and their understanding of American culture. This program is part of the College of Humanities, Fine and Performing Arts and offers non-degree and non-credit courses.

Students applying for the SRU ESL program must have finished secondary-level (or higher) education prior to enrollment in the program.

## **English as a Second Language**

The English as a Second Language (ESL) Program at Slippery Rock University (SRU) is intended for non-native speakers of English who seek admission to an American college or university. Our curriculum helps prepare students for success in undergraduate or graduate studies by focusing on the development of their English language skills, their academic preparedness for an American university and their understanding of American culture. This program is part of the College of Humanities, Fine and Performing Arts and offers non-degree and non-credit courses.

Students applying for the SRU ESL program must have finished secondary-level (or higher) education prior to enrollment in the program.

### **Level 1 - Starting**

- ESL 001 - Start ESL Reading Credits: 0
- ESL 011 - Start ESL Listening Credits: 0
- ESL 021 - Start ESL Writing Credits: 0
- ESL 031 - Start ESL Speaking Credits: 0
- ESL 041 - Introduction to American English Grammar Credits: 0
- ESL 051 - Introduction to American Culture Credits: 0
- ESL 061 - ESL Tutorial Credits: 0

### **Level 2 - Emerging**

- ESL 032 - Basic ESL Speaking Credits: 0
- ESL 002 - Basic ESL Reading Credits: 0
- ESL 012 - Basic ESL Listening Credits: 0
- ESL 022 - Basic ESL Writing Credits: 0
- ESL 042 - Basic American Grammar Credits: 0
- ESL 052 - Exploring American Culture I Credits: 0
- ESL 062 - ESL Tutorial II Credits: 0

### **Level 3 - Developing**

- ESL 003 - Intermediate ESL Reading Credits: 0
- ESL 013 - High Intermediate ESL Listening Credits: 0
- ESL 023 - Intermediate ESL Writing Credits: 0
- ESL 033 - Intermediate ESL Speaking Credits: 0
- ESL 043 - Intermediate American English Grammar Credits: 0
- ESL 053 - Exploring American Culture II Credits: 0
- ESL 063 - ESL Tutorial III Credits: 0

## Level 4 - Expanding

- ESL 004 - High Intermediate ESL Reading Credits: 0
- ESL 014 - High Intermediate ESL Listening Credits: 0
- ESL 024 - High Intermediate ESL Writing Credits: 0
- ESL 034 - High Intermediate ESL Speaking Credits: 0
- ESL 044 - High Intermediate American English Grammar Credits: 0
- ESL 054 - Understanding American Culture Credits: 0
- ESL 064 - ESL Tutorial IV Credits: 0

## Level 5 - Bridging

- ESL 005 - Advanced ESL Reading Credits: 0
- ESL 015 - Advanced ESL Listening Credits: 0
- ESL 025 - Advanced ESL Writing Credits: 0
- ESL 035 - Advanced ESL Speaking Credits: 0
- ESL 045 - Advanced American English Grammar Credits: 0
- ESL 055 - Living in America Credits: 0
- ESL 065 - Independent Seminar Credits: 0

# Enrollment Services

116 North Hall Welcome Center  
724-738-4868

### **Associate Provost**

Amanda Yale

### **Assistant to the Associate Provost for Enrollment Services; Director of FYRST Academic Progress Decisions and Resources; Developer of Degree Audit Functionality**

Connie Laughner

### **Administrative Assistant**

Carolyn Colosimo

### **Online Design Communication Specialist**

Kayla Hersperger

### **Management Technician**

Nancy Ejzak

## **Technology Applications Coordinator for Enrollment Services**

Michael White

### **Departments**

Academic Services

Academic Advisement

Academic Records and Summer School

Office of Career Education and Development

Financial Aid

Graduate Admissions

Orientation

Retention Services

Services for Students with Disabilities

Undergraduate Admissions

### **Programs**

First Year Studies

## **Rock Solid Support**

First Year Studies exists to support the teaching and learning process. The FYRST Program is designed to ease the transition into college life by providing a coordinated effort of offering academically based support services to students. The area has primarily one goal—to facilitate the student transition from high school or work to the university. Structurally, FYRST is the home of all new freshmen, organized within the Division of Enrollment Services. FYRST is comprised of The Department of Academic Services, Office of Retention, and Office for Students with Disabilities.

The majority of the university's academic support services are coordinated and delivered to new students by FYRST. Specifically, FYRST includes spring and summer orientation programming initiatives, first and second year academic advising, advising for exploratory students, learning community clusters, freshman seminar, tutoring, supplemental instruction, developmental math coursework, early-alert retention-based initiatives, services for students with disabilities, academic support services designed especially for first-year academically-challenged students, and support services for students who fall into academic difficulty during their college experience.

FYRST is about creating successful learning experiences for students in and outside the classroom. Progression through FYRST is to be assisted by the faculty advisor, however, it is the student's responsibility to see that he/she meets all requirements of the degree granting college so that upon completion of the first year of study, the student must attain the minimum number of credits, the specific courses and the minimum GPA required by the major department. Through setting high goals and commitment to meeting those goals, new freshmen are to be able to support their efforts through FYRST and make a successful transition.

# International Services

114 Carruth Rizza Hall  
724-738-2057

## **Director**

Pamela Frigot

## **Secretaries**

Janice Druchel, Brenda McKissick

Office of International Services

The mission of the international Services Office is to provide international experiences for Slippery Rock University students and staff to pursue academic and cultural exploration and growth.

## International Student Services

In recognition of the unique needs of students who are not US citizens/permanent residents, the Office of International Services coordinates the recruitment, admission and support services for international students such as orientation to the United States and Slippery Rock University; immigration and legal matters (documentation for visas, passport renewal, extensions of stay, travel and reentry, work permits, etc.); support for the Internations Club; course registration; cultural/academic/personal adjustment; and community liaison.

## Study Abroad Opportunities

International study programs are available to all Slippery Rock University students varying in length from one week to one year. These offer students the opportunity to explore different educational systems, cultures, and ways of life, as well as to foster personal growth, cultural enrichment and enhanced employment opportunities.

The following are available for semester and academic year study:

Australia (Melbourne) – 12-18 credits per semester at Victoria University in liberal studies and most SRU majors.

China (Nanjing) – 12-18 credits per semester at Nanjing University in Chinese language, history, and culture. A minimum of one semester of previous Chinese language study is required.

England (Bradford): 12-18 credits per semester at Bradford University in liberal studies and most SRU majors.

England (London): 12-18 credits per semester at Kingston University or Rehampton University in liberal studies and most SRU majors.

England (Middlesbrough): 12-18 credits per semester at University of Teesside in liberal studies and most SRU majors.

France (Cannes): 12-18 credits per semester at College International de Cannes in French language and culture.

Germany (Bamberg): 12-18 credits per semester at Otto Friedrich University Bamberg, German language study and limited liberal studies options.

Hungary (Budapest): 12-18 credits per semester at Semmelweis University for physical education, exercise science and sport management majors.



India (Rajasthan): 12-18 credits per semester at Rajasthan Vidapeeth University in liberal studies and a variety of SRU majors.

Ireland (Dublin): Fall semester student teaching available as a second placement site in the Irish public school system.

Ireland (Limerick): 12-18 credits per semester at University of Limerick in liberal studies and a variety of SRU majors.

Japan (Osaka): 12-18 credits per semester at Kansai Gaidai University in Japanese language, business, social sciences, culture/humanities. A minimum of one semester of previous Japanese language study required.

Mexico (Mexico City): Spring semester student teaching is available as a second placement site at the American School Foundation.

Poland (Poznan): 12-18 credits per semester at University of Arts for Art majors/minors.

Scotland (Edinburgh): 12-18 credits per semester at Queen Margaret University in liberal studies and a variety of SRU majors.

Slovakia (Bratislava): 12-18 credits per semester at Comenius University in liberal studies and a variety of SRU majors.

Slovakia (Bratislava): 12-18 credits per semester at Academy of Fine Arts and Design for Art majors/minors.

South Korea (Kangwon): 12-18 credits per semester at Kangwon National University in Korean language and culture. A minimum of one semester of previous Korean language study is preferred.

Spain (Madrid): 12-18 credits per semester at university of Alcalá de Henares in Spanish language and culture.

Wales (Aberystwyth): 12-18 credits per semester at Aberystwyth University in liberal studies and most SRU majors.

Summer programs are offered by Slippery Rock University professors in international locations that vary each year, ranging from one to three weeks in length. Three to six credits can be earned, recent classes have met in Canada, Costa Rica, England, France, Scotland and Spain.

January and spring break seminars offer a 7-10 day international trip in conjunction with coursework during the regular spring semester. Locations and faculty leaders vary per year. Recent sites include England, Ireland, Costa Rica, Italy, Czech Republic, Peru, Netherlands, and Bahamas.

Additional opportunities for summer or semester study may also be available via third party program providers.

Financial aid may be applied to most study abroad; further details available from the SRU Financial Aid Office. Travel stipends are also available to SRU students to subsidize travel costs.

Additional services through the office include passport applications, International Student I.D. cards, travel arrangements, etc.

## **Office for Students with Disabilities**

122 Bailey Library  
724-738-4877

**Director, Office for Students with Disabilities**

Linda Quidone

**Secretary**

Deborah Kedanis

The Office for Students with Disabilities provides accommodations and services to ensure equal access to education as intended by Section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act of 1990 (ADA) for students with disabilities including but not limited to learning, physical, hearing, vision or psychological disabilities. At Slippery Rock University we want all students to achieve academic success, and are interested in making every effort to accommodate and serve students with disabilities. To be eligible for services appropriate documentation must be provided. Documentation may include medical diagnosis, psychological evaluations, etc. Upon acceptance to Slippery Rock, students with disabilities are encouraged to make an appointment with the Director so a personal interview can be scheduled.

## **Office of Career Education and Development**

124 Bailey Library  
724-738-2028

### **Director**

John Rindy

### **Associate Director**

John Snyder

### **Assistant Director**

Renee Coyne

### **Secretaries**

Cathy Fuhs

Lisa Theodorson

The Office of Career Education and Development offers services to assist students in planning and pursuing a satisfying career. The services include appointments for selecting a major and career counseling, career interest inventory assessment, on-campus professional interviews, on-campus and off-campus job fairs, job vacancy listings, video mock interviews, administration of several standardized tests including Praxis, MAT, and the GRE Subject tests, and resource information about summer and professional employers, graduate schools, and job search preparation and strategies. Career Services provides a technology-based career resource center that is equipped with Dell computers, HP laser printers and supporting software. DISCOVER, a web based vocational guidance program is available to assist students to engage in career assessment and exploration. Students are able to respond to internship and employment opportunities advertised on the internet to access employer information, and to develop quality resumes and cover letters in printed form or for electronic transmission.

Undergraduate students are encouraged to contact the office for information about summer and/or part-time off-campus employment opportunities. The office web page provides more details about services and staff [www.sru.edu/career](http://www.sru.edu/career).

## **Office of Retention Services**

108 North Hall Welcome Center  
724-738-2011

### **Director**

Carla Hradisky-Coffelt

### **Retention Strategist**

George McDowell

**Secretary**

Melissa Barber

Service to our students is paramount at Slippery Rock University. We are not only interested in recruiting students to The Rock, but are equally as interested in seeing them through to graduation. Through the Office of Retention Services, Slippery Rock begins early in the first semester to retain its students by addressing the issues that a first semester student may experience during the first semester. Within the first 15 days of the semester, students are asked through a survey called MAP-Works, which summarizes each student's strengths and weaknesses in key areas such as academic habits, socio-emotional well-being, and communication. Once this information is collected, our staff works to address the students' needs individually.

Through these efforts, the Office of Retention Services strives to proactively address issues, especially during the first year, before they inhibit a student's education. Retention Services also serves as a clearinghouse for any questions, problems or concerns a FYRST student may experience. Knowledgeable staff can direct the FYRST student appropriately to avoid the "Rock Run Around".

Additionally, any student who has interrupted their attendance at The Rock, for any reason, may resume studies at Slippery Rock University provided they meet the criteria for return, and all students apply for readmission through the Office of Retention Services.

## **Academic Services**

009 and 106 Bailey Library  
724-738-2012  
724-738-2009

**Chair**

Mark Campbell

**Secretaries**

Brenda Beatty, Deb Kedanis

**Faculty**

Cathy Brinjak, Mark Campbell, Susan Parsons, Annette Salsovic, Lorraine Stubbs

## **Academic Support Services Program**

Academic Support Services Program serves first-generation, income-eligible students who may experience academic challenges at Slippery Rock. Students experience individual and group academic advisement activities and learning strategies support which teaches them how to apply and develop effective learning and study habits.

## **First Year Studies**

### **First Year Studies begins with a Rock Solid Orientation**

FYRST begins with an orientation program during which students are introduced to the campus, to a FYRST faculty advisor, and to many institutional resources and services. New student orientation is designed to help students achieve a successful transition to university life. Slippery Rock employs new and innovative ways to greet new students in their first few days on campus and assist them continually throughout their first year. New students who are admitted early have the opportunity to

attend an early orientation program in the spring of their senior year. These students receive a head start on their college experience by scheduling for classes, receiving financial aid information, making and securing living arrangements, and meeting new friends, faculty, and college staff. The orientation program, which is conducted in June, is comprised of an overnight experience and more time to explore the campus and its resources. In August, new students are invited back to campus prior to the beginning of the fall semester for a welcome orientation session.

## **Academic Advisement**

Academic Advisement is perhaps the most important faculty/student relationship outside the classroom. The University's academic advisement system is comprised of two primary organizational structures that include First Year Studies advisement and upper-class student/transfer student advisement.

## **First Year Studies (FYRST) Advisement**

All academic advisement of new freshmen is coordinated and directed by FYRST. The mission of FYRST advising is to personalize the first year by ensuring that every student receives a high standard of academic advisement services from pre-enrollment to orientation, and throughout the student's first year. FYRST advising provides assistance that will help students to acquire the knowledge and skills necessary to select an academic program or major which best suits their individual abilities, interests and career goals. During the student's enrollment in FYRST, he/she should develop a more thorough understanding of his/her own purpose and goals in college as well as those of the university. If a new freshman has declared a major, advisement will be provided by a faculty member selected from the major department. If no major has been declared, the student will be actively involved in the Exploratory Program and advised by a selected faculty member who has volunteered to work with students who have not decided upon a major. Progression through FYRST will be assisted by the faculty advisor, however, it is the student's responsibility to see that he/she meets all requirements of the degree granting college so that upon completion of the first year of study, the student has attained the minimum number of credits, the specified courses and the minimum grade point average required by the major department.

## **Upper-class Student/Transfer Student Advisement**

As a student progresses from FYRST to the degree-granting college, some departments may reassign their students to different academic advisors during the upper-division years, while other departments may permit the student to retain the FYRST advisor throughout his/her years of study at the university. Upon entrance into the university, new transfer students are assigned academic advisors from their major program.

## **Exploratory (Undeclared) Program**

Students entering the university who are exploring majors participate in the Exploratory Program. These students are advised by FYRST advisors who volunteer their time to advise students as part of the Exploratory Program. The faculty identified as FYRST Exploratory advisors have an interest in and a commitment to assisting new students in their transition to college life. Nearly all Exploratory students are advised by members of the Academic Services Department.

## **Advisement Development**

The Academic Advisement Center is responsible for developing advisor and student advising resources, conducting advisor training and first year student advising informational workshops, and maintaining its involvement in retention-related and first-year research activities.

## **Learning Community Clusters**

The university implemented a learning community cluster program which includes a freshman seminar for the purpose of improving students' academic and social integration and establishing an educational environment that maximizes both student-student interaction, student-faculty and student-professional staff interaction. The transition to university life can be challenging and even stressful. The academic and social advantages provided by joining a learning community cluster and freshman seminar initiative can help reduce that stress. By enrolling in the same classes, students are encouraged to meet new people, make friends easily, form study groups, participate in class discussions, and become engaged with their professors.

Research has shown that the more students connect to the university, the more successful they are in their college experience. Our research shows that by enhancing a student's sense of community and involvement, the freshman seminar and learning community clusters contribute to higher retention rates. Because both freshman seminars and learning communities promote active learning and foster collaboration and cooperation, students who participate are higher achievers and more involved in their classes.

## **Freshman Seminar (FYRST Seminar)**

The freshman seminar course is designed especially to enhance the academic, social, and personal integration of the student by focusing on transition topics related to the college environment (e.g., time management, active learning strategies, note-taking skills, test preparation, goal setting, use of campus technology, academic advising, major and career exploration, professional development in the technology fields, diversity, relationship issues, and issues of wellness).

## **Academic and Learning Assistance Resources**

Available online from the Academic Services Department are a series of academic and learning assistance resources for students. This resource center offers free materials on first-year and adult academic transition tools; learning assistance resources on time management, effective reading, test preparation, test taking and note taking; and academic advising resources on scheduling tips, grade point average calculations, and information on major and career selection.

## **Tutorial Center**

Slippery Rock University's Tutorial Center assists undergraduate students in meeting their academic goals with free peer individual and group tutoring services, study skills workshops, and Supplemental Instruction (SI). Emphasis upon basic skills and upon the Liberal Studies areas, study skills instruction and support, communication with faculty, and extensive training and supervision of tutors meet students' immediate academic and content based needs and provide them with effective and transferable study skills. Tutorial services at Slippery Rock University are personalized and tailored to individuals' academic needs.

Tutoring services also include the proactive Supplemental Instruction (SI) model for academic assistance. Students hired as leaders attend assigned classes and work closely with enrolled students to model and teach study skills strategies. Leaders facilitate group-tutoring sessions emphasizing cooperative learning activities.

Individual tutoring sessions for students are scheduled by appointment or on a drop-in basis, whereas group and SI sessions are scheduled to accommodate the greatest number of interested students.

## **College Skills Workshops**

During the fall, the Tutorial Center offers an array of workshops designed to help students succeed in college. All students are eligible to participate in the workshops on such topics as managing time, taking effective class notes, reading texts, building a strong memory, increasing test-taking skills.

## Academic Policies

Academic procedures and policies are subject to change at any time. Changes may involve course content, credit hours, program requirements, and program admission requirements among others. It is the students' responsibility to review their My Rock Audit Report and confer with their academic advisers, the appropriate academic department, and the Office of Academic Records regarding current academic procedures and policies.

Click on a link to be taken to the entry below.

- Procedures and Policies
  - Absence Policy
  - Academic Advisers
  - Academic Complaints
  - Academic Standards
  - Academic Integrity
  - Academic Restart
  - Attendance Policy
  - Auditing Courses
  - Change of Major
  - Classification of Students
  - Continuous Registration
  - Course Levels
  - Credit by Examination
  - Credit for Military Service
  - Dean's List
  - Writing Outcomes for SRU students
- Degree Requirements
  - Application for Graduation
  - Completion of Degree/Certificate Requirements
  - Computer Competency
  - Exit Examinations
  - Graduation Requirements
  - Earning 2 Degrees or 2 Majors
  - Minimum Credit Hour and Quality Point Requirements
  - Modern Language Requirement for BA Degree
  - Residency
  - Second Baccalaureate Degree
  - Upper Division Course Work
- Drop, Add, Withdrawal
- Final Examinations
- Freshman Cohort and Student Athlete Graduation Rate
- Grade Information
  - Procedure for Filing Grade Appeal
  - Grade Change
  - Grade Release Policy
  - Grading System and Policies
  - Incomplete Grades
  - Pass-No Credit Grades
  - Grade Point Average
  - X Symbol
- Name Change
- Notice of Consumer Information Web Site and Annual Security Report
- Notice Designating Directory Information
- Prerequisites and Co-requisites
- Readmission
- Records Privacy Policy
- Repeat of Courses
- Semester Credit Load
- Senior Citizens
- Student Responsibility
- Summer Sessions
- Transcripts
- Transient Student Status
- Visiting Students
- Withdrawal from the University

### Procedures and Policies

## **Absence Policy**

The Student Health Center will provide written verification when it confines students to their residences or the Health Center for 24 hours or longer. Written verification will be provided when a student is hospitalized if the Health Center is aware of the situation. The Health Center does not routinely issue statements verifying a brief student visit to the Health Center. Phone verification of Health Center visits may be provided to an instructor at the student's request. No confidential information about the student's health status can be released without the student's permission. The Provost and Vice President for Academic Affairs will be notified by the Health Center when a student is expected to be out of classes for an extended period of time. Faculty members will be notified through their deans' offices.

## **Academic Advisers**

Academic advisers are assigned in the freshman year by the students' major department or the Academic Advisement Center. Some departments may reassign their students to different academic advisers during the students' sophomore or junior year. Secondary education students are assigned academic advisers by the department of secondary education/foundations of education in consultation with the content area department. Exploratory program students are assigned academic advisers by the Academic Advisement Center.

It is the academic advisers' responsibility to aid their advisees with their academic and educational plans. The advisers are not responsible for making certain that their advisees graduation requirements have been met. This is the sole responsibility of the students.

## **Academic Complaints**

Students who want to file an appeal concerning any academic matter should first contact their instructor. Barring resolution there, students should contact the appropriate departmental chairperson, then the appropriate dean. Further appeal is to be directed to the Provost and Vice President for Academic Affairs. Please refer to the university's Grade Appeal Policy.

TOP

## **Academic Standards (Probation, Suspension, and Dismissal Policies)**

The Academic Deans determine the academic standing of all students at the end of each semester. Academic standing is based on:

1. The student's cumulative grade point average.
2. The total number of credits for which the student has attempted prior to the review. The review credits also include transfer credits, "Credit by Exam" credits, and credits for repeated courses. It does not include credits for audited courses.

Undergraduate and Post-Baccalaureate students with a cumulative grade point average GPA of 2.00 or higher are in satisfactory academic standing. Students with less than satisfactory academic standing are subject to academic warning, probation, suspension or dismissal.

The following procedure applies to all undergraduate and post-baccalaureate students who do not meet the required minimum CGPA as specified:

<u>Review Credits</u>	<u>Cumulative GPA</u>	<u>Procedure</u>
0.5 – 16.0	Below 2.000	Warning Letter
16.1 – 32.0	1.750-1.999	Warning Letter
16.1– 32.0	Below 1.750	Probation Letter
32.1 or more	Below 2.000	Probation Letter
32.1 or more while on probation	Below 2.000	Suspension or Dismissal

An undergraduate student cannot be suspended/dismissed at the end of any semester in which he/she has earned a 2.00 or greater semester GPA, even if his/her cumulative GPA remains less than 2.00.

**ACADEMIC PROBATION:**

When subject to academic probation, the student will be placed on probation for one semester. A student on probation will return to satisfactory academic standing at the end of the semester in which he/she earns a 2.00 cumulative grade point average (GPA).

**ACADEMIC SUSPENSION:**

Undergraduate students who are on probation who fail to earn a 2.00 GPA or 2.00 semester GPA will be suspended from the university. No undergraduate students will be suspended or dismissed at the end of the winter or summer session.

**FIRST TIME SUSPENSION:**

Students on academic suspension for the first time will not be able to register for or attend classes at the university for one semester. Summer term and Winter session do not count as a semester for suspension purposes.

**SECOND TIME SUSPENSION:**

Students on academic suspension for the second time will not be able to register for or attend classes for two semesters. Summer term and Winter session do not count as a semester for suspension purposes.

**READMISSION:**

Students who are placed on academic suspension for the first or second time and have an interest in returning to the university after sitting out for the one or two semester period will request readmission through the director of retention services.

**THIRD TIME DISMISSAL:**

Students on academic suspension for the third time will be dismissed from the university. Students are dismissed for at least three years, and after that time only special cases will be considered by the Academic Standards Committee (Assistants to the Deans of each college and the Assistant to the Associate Provost for Enrollment Services).

**SUSPENDED / DISMISSED STUDENTS:**

Students who have been suspended/dismissed may not register for courses offered any semester, session, or term. A students will *not* be suspended/ dismissed for academic reasons in any semester that he/she has:

- been in good academic standing (i.e. not on probation), or



- earned a 2.00 or higher semester GPA, or
- complied with his/her retention services contract

#### **POST-BACCALAUREATE STUDENTS:**

The records of post-baccalaureate students with less than a 2.00 semester grade point average will be reviewed by their dean for determination of an academic action of probation suspension, or dismissal.

TOP

## **Academic Integrity**

### Purpose of SRU's Academic Integrity Policy

The value of education is determined by the quality and character of its students and graduates. Therefore, students, student organizations, management, and faculty are expected to uphold academic integrity.

### Definition of Academic Integrity

Academic integrity refers to the adherence to agreed upon moral and ethical principles when engaging in academic or scholarly pursuits. Mastery of subject matter should be demonstrated in an honorable and straightforward manner.

### The Significance of Course Grades and the SRU Degree

A course grade certifies both your knowledge of that particular material and a standard of academic integrity. The SRU degree certifies to society both the educational achievement and the fulfillment of our standards, which include ethical and moral behavior.

### Discipline

Inherent in the learning process is a commitment to discipline. Discipline is a specific form of training that looks to the future where one learns lessons and makes better choices. The instructor will guide the learning process by identifying unacceptable behavior and work with students to define the problem and guide them to make better choices. This process preserves the value and reputation of the degrees conferred by SRU. There are two types of discipline: pre-emptive and corrective discipline.

#### **I. Pre-emptive Discipline**

Pre-emptive discipline is a means of training which mandates that the student undertake certain appropriate actions in the course of the learning process. It is expected that students engage in the following pre-emptive behaviors:

- a. All academic work, including, but not limited to, papers, computer programs, assignments, and tests, must consist of the student's own work and not that of other students or other authorities.
- b. Students are expected to be honest in all academic work, refraining from all forms of academic dishonesty.

- c. Students are expected to function as such, including, but not limited to, attending class regularly and completing all assignments and examinations on their own unless the faculty member notes otherwise.
- d. Students are expected to learn, practice and apply standard techniques for accurately citing resource material. It is the student's, not the instructor's, responsibility to ensure that all material is cited.
- e. Students are expected to know the difference between direct quote and citation. When in doubt, the essence of the text should be conveyed in the student's own words.
- f. Students are expected to understand basic principles of respect and compliance with intellectual property law. Particularly important are those aspects of the Copyright Law of the United States that apply to academic work as well as to the use of University computer resources.

## II. Corrective Discipline

Corrective discipline could be implemented when students engage in dishonest behavior. Corrective discipline activities may include:

- a. Conferring with the instructor to identify inappropriate behaviors
- b. Developing a remediation plan and behavioral goals
- c. Developing a means of assessing the student's accomplishment of the established goals
- d. Identifying student sanctions to be put in place if the student does not meet these behavior goals.
- e. Filing an Academic Integrity Incident Report to initiate the investigation process as outlined below.

### Dishonest Behavior

Dishonest Behavior that would merit corrective discipline is defined as any action that gives the student an unfair advantage. Academic dishonesty may take many forms. **Examples of academic dishonesty include, but are not limited to, the following:**

- a. Buying, selling, or trading papers, projects, or other assignments.
- b. Using or attempting to use any unauthorized book, notes, or assistance (for example, copying another student's test or homework).
- c. Plagiarizing and/or submitting the work of another as your own.
- d. Completing class work for another person.
- e. Fabricating information or citations.
- f. Facilitating dishonest acts of others pertaining to academic work.
- g. Possessing unauthorized examinations.
- h. Submitting, without instructor permission, work previously used.
- i. Tampering with the academic work of another person.
- j. Ghost-taking an exam in place of a student or having any person take an exam in your place.

- k. Any attempt to falsify an assigned grade on an examination, report, or program or in a grade book, document, or other record.
- l. Any attempted, or actual computer program theft, illegal use of software; **illegal downloading or streaming of copyrighted media**, or inappropriate use of the Internet; such as, but not limited to, illegal or unauthorized transmission; or improper access to any computer system or account.
- m. Any attempted, or actual, collusion willfully giving or receiving unauthorized or unacknowledged assistance on any assignment or examination (all parties are considered responsible).
- n. Forging a faculty member's or administrator's signature on any document.
- o. Copying and pasting digital media including, but not limited to, **email correspondence, text, images, or other media** from online sources without proper citation, **the copyright owner's permission to use the digital media; or, evidence of having performed a favorable fair use analysis.**
- p. Copying and pasting significant portions of digital media with or without citation.

#### Implications of Dishonest Behavior

##### **I.** Implications to the Student

- a. The student is deprived of the totality of the learning process and lacks the knowledge and skills needed to succeed.
- b. The student subsequently misrepresents his/her qualifications to employers; graduate schools etc. and is not as qualified to perform the work as represented.
- c. The student invalidates the assessment tool used to evaluate the class and deprives the faculty from truly evaluating the effectiveness of the assessment instrument and/or the teaching-learning process.
- d. The student is temporarily rewarded by a good grade but induces others, directly or indirectly, to engage in dishonest behavior.
- e. The student will have conditioned himself/herself to take shortcuts when pressured. This behavior will then be repeated when he/she is in the professional world.
- f. The student receives an unfair advantage, relative to other students who conduct themselves in an ethical manner.
- g. The student could be liable for civil or criminal penalties as a result of violating federal intellectual property laws.
- h. The student, at the discretion of the faculty, could fail the course or assignment.

##### **II.** Implications to the University

- a. Interns, graduates, etc. will not be qualified to function in their respective professions. Consequently, the SRU degree will be devalued, and SRU will be less attractive as a school for employers recruiting interns or prospective employees.
- b. The perception of the public will be that SRU engages in grade inflation.
- c. Alumni/government funding may decrease.
- d. SRU will lose qualified students for seats occupied by unqualified students who engaged in dishonest behavior.

- e. SRU's ability to recruit top performing students will be negatively impacted as its reputation becomes tarnished.
- f. The University, its faculty and staff could be at risk of penalties as a result of the student's violation of federal intellectual property laws.

### **III. Implications to Prospective Employers, including those who provide Internships**

- a. The student will have engaged in resume/transcript fraud; thus, employers will not be hiring a well-educated employee but instead will be gaining one who cannot perform at the level they represent.
- b. Employers who have bad experiences with SRU graduates will not recruit from the University or provide internship opportunities.
- c. Employers will have wasted resources on graduates who are not qualified to do the job.
- d. Students who have legitimately attained a moderate to high GPA may be overlooked.

### **Rights and Responsibilities**

#### **I. Course Instructor**

- a. The instructor has the right to demand academic integrity and authentic authorship in the face-to-face or online classroom.
- b. The instructor has the responsibility to ensure that SRU's academic integrity standards are followed.
- c. The instructor is responsible for communicating to students SRU's Academic Integrity Policy and the minimum penalties for dishonesty in the course syllabus.
- d. The instructor is expected to take steps to minimize the opportunity for students to engage in academic dishonesty.
- e. The instructor clearly communicates course expectations.
- f. The instructor who alleges academic dishonesty is responsible for filing an Academic Integrity Incident Report.
- g. The instructor will gather evidence and participate in the resolution of cases that he/she initiates by following set procedures.
- h. The instructor serves as a role model and mentor by instilling, through example, high ethical conduct in his/her own academic endeavors and in the classroom and online learning environment.
- i. The instructor emphasizes to students the importance of honesty and a respect for integrity within the profession.
- j. The instructor, in accordance with the provisions of the Family Educational Rights and Privacy Act of 1974, as amended, will treat as strictly confidential any information relating to an alleged violation of the University's Academic Integrity Policy or the outcome of a judicial hearing.

#### **II. University**

- a. SRU has a right to discipline students who deviate from academic standards. The University is responsible for upholding the minimum standards of academic integrity and achievement on which degrees are based and for certifying

that students have attained sufficient academic credit and exhibited acceptable standards of conduct to entitle them to a degree.

- b. SRU has a right and is responsible for maintaining and encouraging high standards of academic integrity by establishing policies and procedures for academic integrity **and authentic authorship**.
- c. The University is responsible for monitoring all violations of this policy in order to ensure the integrity and reputation of a degree from SRU.
- d. The University is responsible for communicating this policy to students in any form deemed appropriate.

### III. Student

- a. A student accused of academic dishonesty has the right to due process, which means he/she will be informed of his/her alleged behavior and he/she will have an opportunity to have his/her case heard in a fair and impartial manner.
- b. The student must read and understand SRU's policy on Academic Integrity since ignorance of this policy is not an acceptable defense by a student if a charge of academic dishonesty is made by the instructor against the student.
- c. The student must comply with these standards of integrity as part of the academic community.
- d. A student who fails to meet the procedural deadlines contained in the policy will forfeit his/her rights to a formal hearing for appealing a sanction.
- e. The student should actively encourage other students to comply with these standards.
- f. The student is encouraged to report any violations of this policy by other students to SRU faculty, administration or management. Students are encouraged to testify at subsequent formal hearings about such matters.
- g. A student has the right to be notified in writing within five business days of the alleged violation.
- h. A student has the right to meet with the faculty member to present his/her own version of the facts.
- i. A student has the right to accept the faculty member's allegations as true and accept the faculty member's imposed sanction as well as SRU's sanctions.
- j. A student always maintains the right to have the allegations heard before the Office of Student Conflict Resolution.

#### How Can Academic Integrity be encouraged?

##### I. Faculty

- a. Spell out expectations **for authentic authorship** in the course syllabus and attach SRU's Academic Integrity Policy.
- b. Review SRU's academic integrity policy when reviewing the syllabus.
- c. Secure all assessment instruments for which a grade will be assigned.
- d. Create an environment that encourages the prevention of academic dishonesty.
- e. State within the syllabi that if students do not understand whether something is or is not a breach of academic dishonesty, they must consult with the instructor prior to undertaking the activity.

## II. The Student's Role in Academic Integrity

- a. Taking responsibility for his/her own actions both positive and negative.
- b. Understanding the consequences of both positive and negative behaviors to all stakeholders: oneself, the institution, the faculty and management, the assessment process, and fellow students.
- c. Engaging in actions to change behavior that is negative.
- d. Changing one's thinking at a deep level leading to positive changes in one's actions.
- e. Becoming a positive role model for others by one's actions.

TOP

## **Academic Restart**

An undergraduate student who has been academically dismissed may apply for reinstatement to the institution and have a new academic record created. Students must apply for Academic Restart through their College Dean's office or the Director of Retention Services (FYRST and Exploratory students). After applying, their previous academic record will receive a full review by the College Dean or the Director of Retention Services and the Provost/Vice President for Academic Affairs. Students can be re-admitted only once under the Academic Restart program.

### Conditions

1. A student must sit out at least five years before being eligible for Academic Restart.
2. A student will be placed on provisional status for one semester of full time study, or until he/she has attempted 15 semester hours if attending part time. A student must achieve a minimum cumulative grade point average of 2.00 by the end of the period of provisional status. Failure to achieve the 2.00 minimum cumulative grade point average will result in permanent dismissal from Slippery Rock University.
3. All grades for courses taken prior to the point at which Academic Restart is granted will remain on the academic transcript and academic history. The grades prior to the Academic Restart action will not be applied to grade point average calculations.
4. A student may be reinstated only once under the provisions of the Academic Restart program.

### Provisions

1. If the student has attended another institution since their dismissal, transfer credits and credits by exam may be considered for graduation.
2. A student who is reinstated under the provisions of the Academic Restart program retains the right to utilize course repeat options as specified by University policy.
3. An Academic Restart Appeal is submitted for consideration to the dean of the college or the director of retention services if the student was enrolled in the FYRST Program at the time of dismissal. At the discretion of the College Dean, the appeal may be referred to the director of retention services. The dean of the college or the director of retention services forwards a recommendation to the Provost and Vice President for Academic Affairs. Any exception to these procedures must be approved by the provost and vice president for academic affairs.

TOP

## **Attendance Policy**

Slippery Rock University does not have a university-wide class attendance policy. Traditionally, attendance policies for individual classes have been determined by the instructor and communicated to the class at the first meeting and through the syllabus. The university believes, however, that class attendance, preparation, and participation are integral components of student success. It is unusual for a student to be successful in a class without attending, preparing, and participating regularly. Therefore, the faculty and administration strongly encourage students to attend every class session, to spend at least two hours in review and preparation for each hour in class, and to participate fully in all aspects of the class.

Attendance may be required for class meetings or field trips outside the regular schedule if such activities are listed as required in a course description in the catalog or in course syllabi. Instructors are asked to consider making allowances for absences occasioned by illness, death in the family, religious holidays and by authorized activities. Arrangements to make up work because of class absences are the students' responsibility.

## Auditing Courses

[^ TOP](#)

Students desiring to audit courses (no credit awarded) must receive approval of their adviser. Normal registration procedures must be completed. The cost of auditing courses and taking courses for credit are the same. Students may not change from an audit status to a graded status (A-F and P/NC) or vice versa after the second week of the semester.

## Change of Major

Forms for changing majors may be obtained in the offices of the deans, Academic Records and Summer School, academic departments or the Academic Advisement Center. Students are reminded that they must meet the major academic requirements that are in effect at the time they declare a new major.

[TOP](#)

## Classification of Students

Undergraduate students are classified according to the number of semester credits completed/ including transfer credit and credit by exam.

90-120 semester credits or more senior

60-89 semester credits          junior

30-59 semester credits          sophomore

0-29 semester credits or less          freshman

Classification questions are to be directed to the Office of Academic Records and Summer School.

[TOP](#)

## Continuous Registration

The following Basic Requirement courses within the liberal studies program are subject to the university's continuous registration policy:

- College Writing II (102)
- Public Speaking

- Beginning Algebra

These courses will be graded as A, B, C, or NC (no credit). If an "NC" is earned, students must repeat the course during their next semester of enrollment if seats are available and must continue taking the course until it is passed with a grade of "C" or better.

Once After the drop/add deadline, students are not permitted to drop or withdraw from any of the basic requirement courses listed above.

TOP

## Course Levels

The following course numbering system is used: 100-199 are freshman level courses; 200-299 are sophomore level courses; 300-399 are junior level courses; 400-499 are senior level courses. Graduate courses are numbered 500-800. With approval of the dean, juniors and seniors having a 2.500 cumulative grade point average may enroll in 500 numbered courses for undergraduate credit. Only seniors with their dean's permission are permitted to register for graduate credit in courses numbered 500 and above. Post-baccalaureate students may take 500 level courses for undergraduate credit, and, with the permission of the dean of their college, 500 or 600 level courses for graduate credit. 600 - 800 level courses may not be taken for undergraduate credit.

TOP

## Credit by Examination

Students may qualify to earn a maximum of 45 credits by making satisfactory scores on tests administered through special examination programs, and thereby earn credit or be exempt from certain college courses. Students may not repeat a course by using Credit by Examination if they originally took the course on a graded (A-F), P/NC or audit basis. Credits earned by examination may not be used as part of the students' final 30 credits to be earned at the university.

- The Advanced Placement Program (AP) of the College Entrance Examination Board permits high school students to earn college credits at their schools while attending high school. Students must first take an advanced placement course prior to the advanced placement exam. Scores of three or higher will normally be awarded college credit. Some departments require a score of 4 or 5. High school counselors may assist in this procedure.
- Departments at the university offer credit by examination for some courses. Approval for these tests should be secured from the faculty adviser, instructor, and appropriate departmental chairperson.
- The College Level Examination Program (CLEP) is administered by The College Board. This program is open to all students who meet the eligibility criteria. Under the program, students who feel their knowledge of certain subjects is extensive may elect to take the CLEP exams, which are of two types: general and subject. The general examinations are designed to reflect the learning that ordinarily takes place in the students' first two years of college. The subject examinations are designed to reflect the more specific knowledge which students may have acquired. General examinations each carry 6 credits. Subject examinations each carry 3-4 credits. Upon successfully passing an examination with a score at or above the American Council on Education's recommended minimum score, students will receive credit for the corresponding course(s), which permits registration in more advanced courses. Information on CLEP is available from the Office of Academic Records and Summer School and at the following website: [www.collegeboard.com/clep](http://www.collegeboard.com/clep)
- The university also awards credit for a limited number of Excelsior College, ACT (PEP) exams and DSST exams offered by the Armed Services. Students may contact the Office of Academic Records and Summer School for a list of acceptable PEP and DSST exams.



# Credit for Military Service

Slippery Rock University awards credit for military service and military schooling. Credit is not awarded solely for the completion of basic training or for Military Occupational Specialties (MOS).

To receive credit for military service, a student must submit a DD214 or other official military record documenting a minimum of one year of continuous active duty. Students meeting this requirement will be awarded three credits of basic military science.

Students may receive credit for military schooling, regardless of the length of active or inactive duty, by submitting a DD214, Joint Services Transcript (JST), Army/ACE Registry Transcript (AARTS), Sailor/Marine/ACE Registry Transcript (SMART) or other official military record documenting completion of military coursework.

All evaluations are based upon the recommendations found in the American Council on Education's "Guidebook to the Evaluation of Educational Experiences in the Armed Services."

Students should submit their DD214 and all applicable military educational records to the Executive Director of Academic Records, Summer School, and Graduate Studies - Room 107, Old Main.

TOP

## Dean's List

Undergraduate students who earn semester grade point average of 3.500 or higher on a schedule of at least 12 newly earned credits will achieve the Deans' List as long as their cumulative GPA is at least 2.000. Student teachers may achieve Dean's List status if they have earned 90 or more credits and have a cumulative GPA of 3.50 or higher at the end of the semester in which they student taught. P/NC courses will not be computed into the 12 credit-hour minimum. During the Academic Honors Convocation, these students will be formally presented to the university community. There is no Deans' List during the summer or winter sessions. Post-baccalaureate and graduate students are not eligible for the Dean's List.

TOP

### Writing Outcomes for Slippery Rock University Graduates

1. Programs may ensure that their graduates attain the outcomes for writing ability determined for their disciplines through any of the following methods:
  - a. The outcomes could be demonstrated through work completed in a number of courses. Faculty in a program would identify the courses and the number of courses that could ensure graduates would attain the designated writing outcomes.
  - b. Each program could designate course(s) either within the major or outside the major that students would need to complete in order to attain the writing outcomes for their major program.
  - c. The program's faculty could be charged with incorporating writing outcome in all courses within a program. Writing outcomes for the program would be accomplished through the practice of writing within the discipline throughout the program and demonstrated through production of a graduation portfolio during the senior year. The portfolio could be graded anew, or consist of already graded completed writing.

- d. A program could use a combination of any of the above methods to ensure its graduates' attainment of the writing outcomes designated for the program.
2. Writing outcomes required of graduates of a major program should always be determined by the faculty teaching within the program; those same faculty should always determine whether the writing outcomes are being met.
3. The university assessment core committee will evaluate and approve each major program's plan to implement and assess writing outcomes for the program's graduates. Each plan should include the following as appropriate:
  - a. A rationale for the method used to determine the graduation writing outcomes that would include accreditation standards and/or best practices in the discipline.
  - b. A description of the graduation learning outcomes for the program.
  - c. The curriculum for the program.
  - d. A rubric that will assess the plan's coherence with the university's, accreditation agency's, and/or discipline's stated writing outcomes for graduates.
  - e. If a course or set of courses is chosen, course outline(s) highlighting graduation writing outcomes should be submitted.
  - f. If a graduation portfolio is chosen, the rationale should specify the writing outcomes targeted and an explanation of how they will be demonstrated by the student in the portfolio presentation.
4. The university will provide for support to assist programs in the development of implementation and assessment plans, and in faculty development regarding writing instruction within a discipline. This support may come from the Center for Excellence in Teaching and Educational Technology, the university's assessment core committee, or some other entity developed for the purpose of enhancing writing outcomes among SRU graduates. The Writing Center will continue to provide support for students as they develop their writing abilities.

## **Degree Requirements**

### **Application for Graduation**

Students must make formal application to the Office of Academic Records and Summer School by October 1 (Fall), March 1 (Spring), June 15 (Summer), or December 1 (winter). Beginning in Fall 2011, no diploma fee is required. Students who are eligible for a Pennsylvania teaching certificate should apply to the College of Education at the time they apply for graduation. A certification fee is payable at the time of application. (Students who expect to teach in Pennsylvania must take a physical examination and a chest X-ray or a tuberculin skin test during their senior year. Arrangements must be made with the university health center at the beginning of the last semester of the senior year.) Students who apply for Pennsylvania certification must also submit a criminal record and FBI clearance form. The certification fee may be refunded.

Students who meet all graduation requirements in a given term but fail to apply for graduation until after the semester ends will be graduated at the end of the semester in which their application is received in the Office of Academic Records and Summer School, not the term they completed their coursework.

### **Completion of Degree/Certificate Requirements**

It is the students' responsibility to complete all degree/certificate requirements and to know the university's requirements for graduation. This is not the responsibility of the students' advisers.

Students must meet all graduation requirements by the official end of the semester in which they have applied to graduate. Failure to do so (Incomplete grades in any course or "X" grades in required courses, no application, etc.) will result in the updating of the students' graduation date to the end of the term/year the work is eventually completed.

Effective with undergraduate students entering January 2010 and thereafter, at least 50% of their MAJOR credits must be earned at SRU. Students originally admitted before January 2010, even if they leave the university and are readmitted after January 2010, will not be affected by this new policy.

Collaborative programs will be identified such that residency can be met consistent with the collaborative agreement.

TOP

## Computer Competency Requirement

The goal of the computer competency requirement is to ensure that students can effectively use computers and technology to succeed in an information based society. The purpose of the competency test is to determine if new SRU students have already acquired the faculty-designated minimum level of computer competence. The topics on which students will be tested are computer hardware, system software, application software, social impact, technology and the web, networks and security and privacy. We believe that students need to have a minimum level of competence to achieve the greatest success during their academic career. Students can demonstrate computer competency by either passing the computer competency exam or passing a one credit CPSC100, Introduction to Computing for Liberal Arts or any of the following three-credit courses: CPSC110 (Computer Concepts), CPSC130 (Introduction to Information Systems), CPSC210 (Productivity Software), or PE 202 (Technology for ETE). Upon the successful completion of the exam or one of the courses, Slippery Rock University will certify graduates as having achieved a minimum level of computer competency. Some departments may require students to take additional courses to achieve computer competency for a specific academic major. Students may meet the university's computer competency requirement by passing a computer competence examination administered by the Computer Science department 724-738-2040724-738-2040.

TOP

## Exit Examinations

Some students are required to take specific standardized examinations in liberal studies and/or their major area of study before their degrees will be conferred.

## Graduation Requirements

1. All undergraduate degree programs require a minimum of 120 credits.
2. Students must complete 30 of their final 45 credits in residence at SRU. In addition, individual departments may establish residency requirements for their majors and minors. Students should check with their academic adviser to determine the requirements for their academic program
3. Students must complete a minimum of 45 credits of Liberal Studies coursework.
4. Students must complete 48 credits of upper-division coursework. Thirty-nine of the 48 credits must be at the 300-level or higher, the additional 9 credits may include courses requiring a 3 credit prerequisite. At least 24 of the 48 credits must be completed at SRU.
5. Students must complete at least half their major (15 credit minimum) in 300 or higher level courses. Students must also complete at least 50% of their major at SRU.

6. Bachelor of Arts degrees require language proficiency at the 103 class level. Exemption by placement or examination is possible. Language courses used to satisfy the BA requirement may not be used in the Goal or Enrichment section of the Global Community block of the liberal studies program.
7. Students must complete at least 60 credits at SRU to be considered for Latin Honors at the time of graduation.

TOP

## **Minimum Credit Hour and Quality Point Requirements**

All degree programs require a minimum of 120 credits. At least 30 credits must be completed to earn a major and at least 18 credits must be completed to earn a minor. The majority of programs require minimum cumulative and major grade point averages of 2.000; some programs require a higher average. This information is available from the department adviser or chairperson. To be eligible for teacher certification, students entering fall 2003 or thereafter, must have a 3.000 cumulative average in all university coursework.

## **Modern Language Requirement for BA Degree**

Proficiency at the 103 class level of a modern language, or the equivalent, is required for all Bachelor of Arts degree candidates. Exemption by placement or examination is possible. The modern language courses used to satisfy the BA requirement may not be used in the goal or enrichment section of the global community block of the liberal studies program.

## **Residency**

To qualify for graduation, all students must complete 30 of their final 45 credits credits in residence at Slippery Rock University. In addition, at least 24 credits of upper division course work, 12 credits within the student's major and 6 credits within a minor must be earned in residence at Slippery Rock University. Students should check with their academic adviser to determine the residency requirement for their specific academic program.

Effective with undergraduate students entering January 2010 and thereafter, at least 50% of all major credits must be earned at SRU. Students originally admitted before January 2010, even if they leave the university and are readmitted after January 2010, will not be affected by this new policy.

Collaborative programs will be identified such that residency can be met consistent with the collaborative agreement.

TOP

## **Earning 2 Degrees or 2 Majors**

Effective May, 2009, the Board of Governors of the PA State System of Higher Education set minimum standards for students wishing to earn 2 different undergraduate degrees at a single commencement ceremony.

To earn two different Baccalaureate degrees at the same commencement ceremony students must complete a minimum of 150 credits and all the academic requirements of both degrees.

Additional Clarification

- Students may not earn two of the same degree (BS and BS) regardless the number of credits earned.

- Students wishing to earn a Bachelor of Arts degree, whether it is associated with their first or second major, must complete the university's modern language proficiency requirement at or above the 103 level.
- Students earning two different degrees (BA and BS) will be awarded two diplomas.
- Students may still earn two majors and one degree. To earn two majors, students must complete at least 120 credits and all the academic requirements of both majors. This means students selecting a second major that is offered in association with a Bachelor of Arts degree will not have to complete the university's modern language requirement. See "Second Baccalaureate Degree" section of the undergraduate catalog.
- Students wishing to earn a second Baccalaureate degree after graduating should also refer to the "Second Baccalaureate Degree" section of the undergraduate catalog.

TOP

## Second Baccalaureate Degree

If students desire to earn a second baccalaureate degree at Slippery Rock University, they may do so by:

- enrolling as a post-baccalaureate student and,
- taking a minimum of 30 new credits at SRU after the first baccalaureate degree,
- meeting departmental requirements for the degree in respect to the required GPA credits and courses for a major in that department, and
- meeting degree requirements in respect to the GPA and courses required for the requested degree.

Latin Honors at graduation will not be awarded to second-degree candidates, nor are post-baccalaureate and graduate students eligible for the dean's list.

## Upper Division Course Work

All degrees require the completion of a minimum of 48 credit hours of upper division course work. Thirty-nine of the 48 credits must be at the 300 level or higher, the additional 9 credits may include any course requiring a 3 credit hour prerequisite. At least 24 of the 48 credits must be completed at Slippery Rock University.

At least half a student's major must consist of upper division course work (only 300-level and above). At least 9 credit hours of a student's minor must be taken at the upper division level (300-level and above or courses requiring a 3-credit prerequisite).

Students with fewer than 45 credits (Sophomore II) must have the permission of the instructor to enroll in 300 and 400 level courses.

TOP

## Drop, Add, Withdrawal

Full semester courses may be added during the first two weeks of the semester, but permission of the professor is required after the first week of classes. Students desiring to add closed sections of courses for which they have the required pre/co-requisite must always receive the professor's approval. Courses dropped during the first week of the semester will not be recorded on the students' permanent records. Students may not drop their last course on MySRU and should contact the Office of Academic Records and Summer School for assistance. Students may withdraw from full semester classes with a grade of "W" between the second and tenth weeks of the semester. Students will not be permitted to withdraw from classes after the tenth week and will be held accountable and awarded a final grade for all coursework, exams and other work assigned during the final five weeks of the semester. For courses meeting fewer than 15 weeks, the withdrawal deadline is two thirds of the way through the course's beginning and ending dates. Students may not withdraw from Basic Requirement courses, with the exception of Interpreting Literature, once the semester has started.

Yellow drop/add cards may be used to add classes until the end of the second week of the semester, and until the end of the first week of the term to drop classes. After the first week of the semester, student may no longer drop classes, but may withdraw from classes with a grade of "W" by using a blue withdrawal card.

Students who for exceptional reasons are permitted to drop, add, or withdraw from classes after the university's stated deadlines must receive their respective Dean's/Director of Retention Services' approval and will be charged \$15 for each late transaction.

TOP

## **Final Examinations**

At the end of each semester, all final examinations are to be administered during the time stipulated in the examination schedule, which is printed in the master schedule of course offerings. The decision to give a final examination is the prerogative of faculty members; but if a final examination is given, it is to be administered according to the time as indicated in the examination schedule. The appropriate dean must approve any exceptions to this policy. Classes will meet during the scheduled examination time if no examinations are given.

## **Freshman Cohort and Student Athlete Graduation Rate**

In accordance with the Students Right to Know and Campus Security Act (PL 101-542) as amended by the Higher Education Technical Amendments of 1991 (PL 102-26), Slippery Rock University will publish the graduation rate of its first time, full-time degree seeking undergraduates in each of its Master Class schedules. This information is also available in a more detailed format from the Office of Academic Records and Summer School and at the university's Student Consumer website.

## **Grade Information**

### **Procedure for Filing Grade Appeal**

#### **Academic Due Process Procedures**

The purpose of the following procedure is to provide students with a system by which to grieve complaints of alleged academic injustice(s) relating to a final grade and/or professional responsibilities.

Students who believe that their final course grade reflect unsubstantiated academic evaluation may initiate and pursue a grade change appeal in accordance with provisions of this document. At the same time, all academic rights and privileges of faculty members are to be honored in this process, which includes careful review of the course syllabus. Changes in final course grades will occur only when, as a result of this grade appeal process, there is clear evidence of unsubstantiated academic evaluation. Because the grade process involves the instructor's judgment of the academic performance of a student the only issue under consideration in the grade appeal process is whether or not the student can present clear evidence that the assignment of the grade was based on factors other than the academic judgment of the instructor.

Some examples of the basis for a legitimate disagreement could include, but not be limited to prejudiced, capricious, or unsubstantiated academic evaluation by the instructor:

1. The instructor did not inform the student of the basis for calculation of grades.

2. The instructor did not calculate the student's grade in accordance with the instructor's stated policy for calculating grades.
3. Significant and unwarranted deviation from grading procedures and course outlines set at the beginning of the course (ordinarily during the first week of the course) or a grade assigned arbitrarily and capriciously on the basis of whim, impulse or caprice.
4. There is an error in the computation of the grade that was not corrected.
5. The student, through no fault of his or her own, was not provided with the same opportunity to complete the requirements for the course in terms, for example, of time, access to materials, or access to the instructor as the other students.

**A student may not claim arbitrariness and capriciousness if he/she disagrees with the subjective professional evaluation of the instructor.**

#### **Informal Appeal Procedure:**

1. The student must discuss the final course grade, grading practices and assignments with the instructor who gave the final grade. This discussion may eliminate any misunderstandings over the assignment of the grade as relates to the course syllabus. This discussion must occur before the student may file a formal appeal.
2. If the faculty member finds in the student's favor, a grade change card is submitted with signatures and the appeal process is resolved.

If a student and instructor fail to resolve the grade dispute through informal means the student may request a formal grade appeal process by completing a "**Final Grade Appeal Form.**"

#### **Formal Appeal Procedure:**

##### **Step One**

The student must complete and submit the "**student**" portion of the **Final Grade Appeal Form** to the course instructor no later than **15 days** after the beginning of the semester following the issuance of the final grade. The summer term does not constitute a semester.

The student must retain a copy of the Final Grade Appeal Form for his/her records and send a copy to the department chairperson (or substitute) of the department in which the course is housed. The chairperson of the department evaluation committee shall substitute for the department chairperson IF the department chairperson was the instructor of the course in which the grade is being appealed.

##### **Step Two**

The department chairperson (or substitute) notifies the instructor in writing that chairperson is aware that the instructor has received a grade appeal.

If the instructor decides that the final grade is correct, he/she must complete the "**instructor**" portion of the Final Grade Appeal Form, and return it to the student and send a copy to the chairperson (or substitute) **within 10 working days of receipt of the student's appeal.**

If an instructor fails to respond within the allotted time, the appeal shall move to step 3 below.

If a faculty member whose grade(s) are being appealed is no longer employed by the university or is unavailable due to a sabbatical, sick leave, or other reasons during the time period allotted for the appeal process, the appeal should be directed to the chair of the department (or substitute) for review.

##### **Step Three**

If the student wishes to appeal further, he/she must submit the original Final Grade Appeal Form (or copy if the instructor fails to respond as described in step 2 above) to the department chairperson (or substitute) and the college dean. This appeal must be submitted **within 10 working days** of the dated instructor's response, or if the instructor does not respond, **within 15 working days** after the appeal was originally filed with the instructor.

The department chairperson (or substitute) will review the appeal **within 10 working days**.

Before the department chairperson (or substitute) determines if the student's complaint provides evidence that the instructor's assignment of the grade was based on factors other than the academic judgment of the instructor he/she will review the appeal with the instructor. The chairperson (or substitute) may also conduct whatever informal investigation seems necessary and should attempt to achieve a negotiated settlement.

#### A. When Chair Agrees Grade Is Correct

If the department chairperson (or substitute) determines the student's evidence **does not meet** the criteria for a grade appeal, the chairperson (or substitute) will forward his/her decision on the grade appeal to the instructor, student and college dean.

#### B. When Chair Disagrees that Grade is Correct

If the department chairperson (or substitute) determines the student's evidence **does meet** the criteria for a grade appeal, he/she will offer an explanation on the Final Grade Appeal Form and provide a copy to the instructor.

The instructor must then indicate on the Final Grade Appeal Form whether he/she agrees or disagrees with the chairperson's recommendation, signs and returns the Final Grade Appeal Form to the chairperson **within 5 working days**.

1. If the instructor amends the grade, a signed grade change card is submitted and the grade appeal is ended.
2. If the instructor does not agree to amend the grade or fails to respond in the allotted time, the chairperson (or substitute) submits the Final Grade Appeal Form to the college dean, student, and instructor with his/her recommendation **within 5 working days**.

#### Step Four

If the dean, upon review of the chairperson's recommendation, also determines the student's evidence **does not meet** the criteria for a grade appeal, the dean will complete and return the Grade Appeal Form to the student with a copy to the instructor and chairperson (or substitute) **within 5 working days**. **The grade appeal process ends.**

If the dean, upon review of the chairperson's recommendation, determines that the evidence is unclear or the student's evidence **does meet** the criteria for a grade appeal, the dean **shall initiate a meeting with the faculty member**. The dean shall review the appeal, can hear evidence by each side, and may collect further evidence as needed.

If **agreement** cannot be reached, the dean will forward the Final Grade Appeal Form to the Provost **within 20 working days**, with his/her recommendation that the grade appeal be referred to a Grade Appeal Board. The dean also forwards a copy of the Final Grade Appeal Form to the student, instructor, and chairperson.

In each of the above statements, the chairperson of the department evaluation committee shall substitute for the department chairperson IF the department chairperson was the instructor of the course in which the grade is being appealed. Should the chair of the evaluation committee not be available, APSCUF will be consulted in the process of choosing a substitute.

TOP

#### Step Five

##### A. Composition of the Grade Appeal Board

- Three faculty selected by APSCUF. One from the academic department in which the course is taught. Not the instructor.
- Two managers selected by the provost. One to be the dean of the college in which the course was taught.
- One student selected by Student Government Association. A senior outside the department in which the course is taught.



Normally, each Grade Appeal Board will be appointed to hear one appeal.

Those responsible for recommending board members should be sensitive to race and gender composition.

The Provost will appoint each board and chairperson within the parameters above.

#### B. Grade Appeal Board Procedures

Once the appeal board has been established, the appointed chairperson of the committee will contact board members, the faculty member, and the student bringing forth the appeal to determine a date to convene the board (within 20 working days) and send them a letter confirming the date and place of the meeting.

At this point, all paperwork and collected evidence will be copied and provided to the members of the appeal board committee in sealed, confidential envelopes. This paperwork and evidence will be assembled by the dean of the college involved in the appeal, reviewed and brought by appeal board members to the appeal meeting. The chair will collect the copies at the end of the meeting.

The procedure for the appeal meeting is as follows:

1. The chairperson of the Grade Appeal Board will call the meeting to order and review procedure.
2. The student will have 10 minutes to present his/her reason for the appeal.
3. The faculty member will then have 10 minutes to explain why he/she feels there is no basis for the appeal.
4. The committee member can then ask questions of the student and/or faculty member to clarify any points.
5. The faculty member and the student are excused and told they will be notified of the decision by letter.
6. The committee discusses and reaches a recommendation by majority vote.
7. The chairperson will notify the President of the University of the recommendation of the committee by memo. The chairperson will notify the student and faculty member of the president's decision by letter. The letter will be copied to the Department Chair and Dean.

#### **Step Six**

Students who appeal a grade to a Grade Appeal Board are responsible for maintaining ALL written materials relevant to the appeal, such as papers, examinations, and completed assignments. Further, the appeals board must have access to appropriate documentation and academic records pertaining to the course grade in question. After the appeals process is complete, the only record to be maintained will be the student's final grade.

Each appeals board will make its recommendation to the university president, who may accept or reject the recommendation. Since the university has the power and duty to direct the activities of the institution, nothing in this policy should be construed as to diminish that authority in any way.

## **Grade Change**

Once a grade has been posted, it can only be changed by the professor who originally awarded the grade. If the professor is no longer employed by the university or is not available for some other reason, the request for a grade change should be discussed with the department chairperson. Grade changes must be processed on a grade change card and must be approved by the professor and the chairperson of the department in which the course was offered.

A memorandum of explanation from both instructor and departmental chairperson must accompany any grade change submitted after more than a year has passed since the student received the original grade. This information is submitted to the Office of Academic Records and Summer School. Students who attended a full semester class beyond the 10th week may not have their grades changed to a withdrawal "W" without their dean's approval.

## **Grade Release Policy**

[^ TOP](#)

Students' midterm grades and final grades are available on the university's MySRU.

In accordance with the Family Educational Rights and Privacy Act (FERPA) grades will not be released to a third party (including parents) without the authorization of the students. Students may authorize the release of grades to third parties by populating the report card mailing address, within their "personal information" file in MySRU.

## **Grading Symbols and Quality Point Conversion System**

A - Excellent	4 quality points
B - Good	3 quality points
C - Satisfactory	2 quality points
D - Poor	1 grade point
F - Failure	0 quality points
I - Incomplete	0 quality points
P - Pass	0 quality points
NC - No Credit	0 quality points
AU - Audit	0 quality points
W - Withdrawal	0 quality points
X - No grade given	0 quality points

## **Grading System and Policies**

Instructors are to inform their students in writing during the first week of classes of their grading procedures and policies, especially explaining how final grades are calculated.

### **Incomplete Grades**

The assignment of an incomplete grade is the prerogative of the faculty and is granted only when extenuating circumstances prevent students from completing the course requirements within the regular time period. Faculty also reserve the right to set any deadline for the completion of the incomplete work; however, students not receiving an earlier deadline will have a maximum of 12 months after receiving the incomplete to finish all coursework and receive a change of grade. If a faculty member does not submit a grade change card within 12 months, regardless of whether or not the student attends the university, the grade will automatically convert to an "F". Requests for extensions of incomplete grades, beyond 12 months, must be submitted by the faculty member and approved by the dean of the college in which the course was offered. Students will not be permitted to graduate with an incomplete grade on their record.

[TOP](#)

### **Pass-No Credit Grades**

Students, with adviser's approval, may schedule a maximum of 12 credits of pass-no credit grading in the sophomore, junior and senior years combined. Students must select these courses at registration and cannot change the pass-no credit designations after the second week of the semester. For these 12 credits, only free elective courses may be taken on a pass-no credit basis. Pass-no credit courses may not be used to satisfy major, minor, the BA modern language, and the university's liberal studies program requirements. Some selected courses are not included in the 12-credit limitation. Students may not take more than one pass-no credit course during a semester.

Courses taken under the pass-no credit system are not used in computing the student's GPA. Credit for such courses is recorded toward meeting the total credit requirements if the course is passed. A grade of NC (no credit) will be recorded if the course is failed.

Pass-no credit is not synonymous with audit. In pass-no credit, all course requirements must be met.

TOP

## Grade Point Average

Grade points for a single course are calculated by multiplying the points assigned the letter grade (A = 4, B = 3, C = 2, D = 1, F = 0) by the number of credits of the course. Total grade points are calculated by adding the grade points earned in each course. The grade point average (GPA) is computed by dividing the total grade points earned by the total number of credits attempted, (repeated courses are counted only once). Grades earned in courses taken at other colleges for transfer are not computed in the grade point average at Slippery Rock University unless the courses were taken with Slippery Rock University's approval as a "Visiting Student" or "Distance Education Student" at another PA State System of Higher Education university. Further explanation concerning the calculation of the GPA may be directed to the student's academic adviser, the Advisement Center or the Office of Academic Records and Summer School.

TOP

## X Symbol

The symbol "X" means "no grade given." This symbol will be used only in those rare situations when professors cannot assign students a letter grade or incomplete.

The "X" symbol will not affect the students' semester or cumulative GPA at the time it is given. However, the "X" symbol must be removed from the students' record prior to the end of the students' next semester of enrollment. Otherwise, it will be converted automatically to an "F" and will then be used in the students' semester and cumulative GPA calculations. The "X" symbol cannot be extended beyond the students' next semester of enrollment.

If graduating students receive an "X" during their final semester of enrollment, they will be permitted to graduate as long as the course in question is not required for graduation.

## Name Change

Students may have their names changed on official university records only after submitting an official document (marriage certificate, court record, etc.) or a notarized statement that a name change has occurred and the new name is not being used for any deceptive or fraudulent purpose. Copies of the university's policy and a sample affidavit are available from the Office of Academic Records and Summer School.

# Notice of Consumer Information Web Site and Annual Security Report

In accordance with the provisions of the Student Right to Know and Clery Acts, students are urged to access SRU's Consumer Information Website (Including campus crime statistics, graduation rates, and Students Rights to Privacy.)

## Notice Designating Directory Information

The *Family Educational Rights and Privacy Act* (FERPA), a Federal law, requires that colleges and universities, with certain exceptions, obtain a student's written consent prior to disclosure of personally identifiable information. However, institutions may (not must) disclose appropriately designated "directory information" without written consent, unless the university has been advised by the student that he/she does not wish to have his/her directory information released.\*

Directory information, which is information that is generally not considered harmful or an invasion of privacy if released, can, but is not required to be disclosed to outside organizations without the student's written permission.

Slippery Rock University is committed to maintaining the privacy of its students' records and therefore also limits its release of Directory Information for official University purposes only.

Slippery Rock will not release Directory Information for solicitation purposes to 3rd parties from **outside** the university. This includes outside vendors, businesses and organizations unless the university has entered into a contract or agreement with the organization to supply specific service to the university or its students that requires the use of this information.

The Executive Director of Academic Records also carefully screens the release of Directory Information to parties **within** the university to assure that its students only receive correspondence related to the academic and social missions of the institution.

Slippery Rock University hereby designates the following student information as "directory information." Such information may be disclosed without a student's previous consent by the institution for any purpose, at its discretion with the exceptions noted below:

1. Name
2. Addresses (local, permanent, and email)
3. Telephone number (local, cell and permanent)
4. Date and place of birth
5. Program and concentration(s) and minor(s)
6. Student activities, including athletics
7. Weight, height (athletic teams)
8. Dates of attendance
9. Degrees and awards received

10. Date of graduation
11. All educational institutions previously attended
12. Academic awards/scholarships
13. Title of master thesis
14. Number of credits (full- or part-time) for which a student is registered
15. Pictures of students (for University use in publications, press releases and advertisements)
16. Class level
17. Anticipated graduation date
18. Student ID number used to communicate in electronic systems that cannot be used to access education records without a PIN, password, etc.

As noted above \*, currently enrolled students have the opportunity to withhold disclosure of all 18 categories of information under the Family Educational Rights and Privacy Act (FERPA). The University will not partially withhold this information, so students are advised to think carefully before requesting non-disclosure. To withhold disclosure, written notification must be received in the office of academic records and summer school, Slippery Rock University, Slippery Rock, Pa. 16057 prior to the end of the second week of each semester/summer session. Forms requesting the withholding of "directory information" are available online or in the office of academic records and summer school, Room 107, Old Main... (724) 738-2010(724) 738-2010 or [academic.records@sru.edu](mailto:academic.records@sru.edu).

Slippery Rock University assumes that failure on the part of any student to specifically request the withholding of "directory information" indicates individual approval for disclosures. Former students and alumni are not covered under the Family Educational Rights and Privacy Act (FERPA). As such, the University is not obligated to honor requests for non-disclosure of "directory information" from former students.

**Note:** Students requesting that "directory information" not be disclosed during their **final semester of enrollment** will have this information withheld indefinitely after leaving the University. Students are cautioned that making such a request may adversely impact future requests from potential employers, and other important individuals/organizations.

## Prerequisites and Co-requisites

Students should not register for courses until they have completed all the appropriate prerequisites or are registered for the appropriate co-requisites as noted in the university catalog. The university's computer has been programmed to check for pre/co-requisites. Professors reserve the right to withdraw students who have not completed/registered for the appropriate pre/co-requisites for their classes.

## Readmission

Students who have interrupted their attendance at SRU for any reason may resume studies at Slippery Rock University by applying for readmission to the Director of Retention Services. This must be done at least one month prior to the beginning of the semester/term in which they wish to enter. Students must submit official transcripts from all schools attended after leaving SRU before a readmission decision will be made. Credits earned at another college or university while the students were not attending SRU may not be eligible for transfer to Slippery Rock University. Using a transient clearance form, students must obtain approval from their department and at times, their dean **before** taking the courses to ensure the transferability of credits to Slippery Rock University. Grades earned as a transient student will

**not** be computed into the student's SRU grade point average. Readmitted students are responsible for meeting all academic requirements in effect at the time they are readmitted, not at the time they were originally admitted to the university.

## Records Privacy Policy

For the purposes of complying with FERPA, an applicant to SRU becomes a "student" on the first day of the first term/semester in which the student is registered at the University.

(PL 93-380 & Right to Know Law: PA PL 390)

The Family Education Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the university receives a request for access.

Students should submit to the Executive Director of Academic Records and Summer School, Dean, Department Chairperson, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding to the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Council of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the University may disclose education records without consent to officials of another school in which a student seeks or intends to enroll.

4. As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records—including your

Social Security Number, grades, or other private information—may be accessed without your consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to your records and PII without your consent to *any* third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education," such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases *even when we object to or do not request such research*. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without your consent PII from your education records, and they may track your participation in education and other programs by linking such PII to other personal information about you that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Slippery Rock University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202-4605

Copies of the University's policy governing the Family Education Rights and Privacy Act are available in the Office of Academic Records and Summer School, Room 107, Old Main. Questions concerning FERPA should be referred to the Executive Director of Academic Records and Summer School.

For more information see SRU's Policies and Procedures Governing FERPA & PA's Right to Know Law Document.

## Repeat of Courses

Students may attempt to improve their grade point average by repeating courses. The most recent grade earned is used in calculating the GPA even if the earlier grade was higher. If a passed course is repeated and failed (or NC), the student will lose both the quality points and credits previously earned. However, all grades will appear on the transcript. Courses in which grades of D, F, and NC were earned at Slippery Rock University may not be repeated at any institution other than as a Visiting Student at another PA State System of Higher Education university for transfer to Slippery Rock University.

Students who repeat a course must do so using the same grading system under which they originally took the course. For example, a student who originally took a course graded A-F may not repeat the course on a P/NC or audit basis. Students may not repeat a course by using any Credit by Examination program if they originally took the course on a graded (A-F), P/NC or audit basis.

Effective January 2010, undergraduate students will be limited to a maximum total of six repeats during their entire SRU academic career/ excluding withdrawal grades.

In addition, repeats of a single course will be limited to a maximum of two. This means, no single course may be taken more than three times (excluding withdrawal grades).

The course repeat policy for post-baccalaureate students is the same as the undergraduate student policy.

## Semester Credit Load

The number of credits an undergraduate student may carry is determined by the cumulative grade point average as follows:

- If the cumulative GPA is less than 2.000, students are limited to a maximum of 16 credits, inclusive of any repeat courses that are scheduled.
- If the cumulative GPA is 2.000 to 2.499, a maximum load of 18 credits is permitted.
- If the cumulative GPA is 2.500 or above, a maximum of 21 credits is permitted. An additional fee is charged for each credit in excess of 18.

Students wishing to register for more than the maximum number of credits noted above must complete a "Request to Register for Excess Hours" form, have it approved, and returned to the Office of Academic Records and Summer School for processing.

## Senior Citizens

Senior citizens (persons 62 or older, who are receiving social security or equivalent retirement benefits) may **audit** courses at no cost at Slippery Rock University on a space available basis. Senior citizens must provide proof of age, retirement benefits, name, address, and social security number to the Office of Academic Records and Summer School in order to complete registration. Individuals 62 or older who are not working and are not receiving social security or retirement benefits may also qualify for this program. Senior citizens may register for classes no earlier than one week prior to the start of the semester/term. Senior citizens taking courses **for credit** are responsible for paying all applicable fees with the exception of tuition.

## Student Responsibility

Undergraduate students are expected to learn the requirements for their degree program. While academic advisers and faculty members will endeavor to aid students, the responsibility for compliance with regulations and requirements rests with the students.

## Summer and Winter Sessions

Summer sessions at Slippery Rock University are scheduled over a fifteen week period (Full Summer) or as follows: Pre-session (two and one-half weeks), Session I (four weeks), Session II (four weeks), Summer Term (eight weeks), and Post- Session for Internships and Student Teaching. Information on the summer sessions is made available through an online summer schedule/bulletin, which may be accessed from the Academic Records and Summer School website in mid-March prior to the summer sessions.

Students may enroll for up to 6 credits in Pre-session, 7 credits in Sessions I and II and 12 credits in Full Summer, Summer Term and Post-session.

Winter session runs between fall and spring semesters. All courses are offered online, at the Regional Learning Alliance or off-campus (internships). Students are permitted to take up to 7 credits in Winter session.



# Transcripts

Students may obtain official transcripts of their academic records from the Office of Academic Records and Summer School by written request. Transcripts may be mailed, faxed or sent electronically. There is not cost for regularly processed transcripts (48-72 hour turnaround). Same day service costs \$10 per transcript requested. A complimentary copy of the transcript is sent to all students upon graduation. Transcripts are not released to students who have outstanding financial obligations, or other holds at the university. The University only issues OFFICIAL transcripts. Unofficial transcripts exist on MySRU.

A student's academic transcript will indicate any disciplinary action taken that leads to separation from the institution. That is, should a student be suspended or dismissed from the university under the provisions of the Code of Conduct, a notation will be placed on the student's transcript for the duration of the sanction. The notation will be removed upon expiration or by action of the vice president for student life.

# Transient Student Status

Slippery Rock University students who are in good academic standing, or who are under academic probation/suspension and plan to take courses at another institution for transfer back to Slippery Rock University must complete and have approved by their adviser, chairperson and dean (if suspended) a transient student clearance form and comply with all regulations cited on that form. Credit will not be awarded for transient courses determined by the Executive Director of Academic Records, Summer School and Graduate Studies or his/her staff to duplicate coursework already posted on students' SRU records. Transient credit will be awarded for courses in which grades of "C-" or better have been earned. Grades earned as a transient student will not be computed in students' SRU cumulative GPAs. Copies of the Transient Student form are available in department chairpersons' offices, the Office of Academic Records and Summer School and online. Transient students may not take credit earned by examination. Other policies governing transient status are available from the Office of Academic Records and Summer School. Students must complete 30 of their last 45 credits in residence at SRU. In addition, individual departments may establish residency requirements for their majors and minors. Students should check with their academic adviser to determine the requirements for their academic program.

# Visiting Students (PASSHE)

Students desiring to transfer credit and grades earned at other universities in the Pennsylvania State System of Higher Education back to Slippery Rock University may do so as "visiting students." Courses taken under this program are treated the same as courses taken at Slippery Rock University in computing the students' GPA. A special form, with a list of program requirements, is available in the Office of Academic Records and Summer School and online and must be approved by the students' adviser or chairperson, academic dean, and the Executive Director of Academic Records, Summer School and Graduate Studies.

# Withdrawal from the University

Students who withdraw from the university must either complete an official withdrawal form obtainable at the offices of Academic Records and Summer School or Retention Services, or notify the Director of Retention Services via a signed and dated letter of their intention to withdraw.

Students will be officially withdrawn from the university on the date the office of Retention Services receive notification in writing of their intent to withdraw, not the last day of class attendance.

It is expected that students living on-campus will move out of their residence hall and cease eating in the university's cafeterias immediately after withdrawing from school.

Students withdrawing from the university up to the last day of classes will be awarded withdrawal grades of "W" in all classes. Students waiting to withdraw from the university after the last day of classes (final exam week) will be withdrawn on the last day of the semester/term and will not be awarded a withdrawal grade in any class.

## Admission

Students are admitted to Slippery Rock University of Pennsylvania for the fall semester, spring semester, or a summer term. The university calendar should be consulted for specific starting dates. Applicants are considered for admission on a rolling basis. Criteria and deadlines used to determine admission to the university are defined by an applicant's admission category. Admission to the university may be subject to space availability and criteria used for admission to the university are subject to change.

Click on a link to be taken to the entry below.

- Freshmen Applicants
  - Admission Guidelines for New Freshmen
  - How to Apply for Admission as a New Freshman
  - Freshmen Residence Requirement
- Transfer Students
  - How Are Transfer Credits Evaluated?
- What is Academic Passport?
- Post Baccalaureate Students
- Special Student Admission
- Transient Students
- Visiting Students
- Faxed Transcripts/Documents
- Student Right-to-Know and the Clery Act
- International Students

## Freshmen Applicants

Any high school graduate (or anyone who will be a high school graduate prior to attendance) or anyone who has passed the General Educational Development test (GED) who has not yet enrolled at a college, university, or other post secondary educational institution and intends to enroll at Slippery Rock University to pursue a degree granting program shall apply for admission as a new freshman. Students who enroll in dual-enrollment college credit programs prior to high school graduation are still considered new freshmen students.

## Admission Guidelines for New Freshmen

New freshmen are admitted to Slippery Rock University on a rolling basis for all terms. Admission criteria used to evaluate an applicant usually include the student's previous academic record and standardized test scores. Admission guidelines are based upon the academic profiles of previously successful students. First-time, full-time students (new freshmen) who succeed most often at Slippery Rock possess a cumulative grade point average of 3.0 on a 4.0 scale in high school as well as SAT or ACT scores that are above average at the time of admission. Other students who apply may be asked to supply additional information and may be considered for admission on an individual basis using a Waitlist process. Additional admission criteria for applicants on the Waitlist may include: high school course rigor, grade trends, grades in core college preparatory courses and class rank (if available). Waitlisted applicants are offered admission on a rolling, space available basis and applicants closest to the academic and standardized test admission guidelines are offered admission most frequently.

Slippery Rock University recommends that entering freshmen complete a college preparatory curriculum in high school consisting of four years of English; three years of social studies (with a fourth year recommended); three years of science with two years laboratory science; three years of mathematics (with a fourth year recommended, including algebra one, algebra two and geometry). Two years of a foreign language in the same language is preferred but not required.

TOP

## How to Apply for Admission as a New Freshman

Applicants need to supply the following credentials to apply for admission:

- A completed Application for Admission (admission applications are available through the Office of Admissions and via the web at [www.sru.edu](http://www.sru.edu))
- A \$ 30.00 application fee (non-refundable)
- Official high school transcripts or GED, and senior year (12 th Grade) class schedule if enrolled in high school
- Official Composite Test Scores from the SAT or ACT

Official transcripts are those that either 1) are sent directly from the school to Slippery Rock University's Office of Admissions, or 2) are delivered to Slippery Rock University's Office of Admissions in a sealed envelope from the school. No other transcripts will be considered official. Transcripts should reflect all grades up through the end of the junior year (six completed semesters). Final official high school transcripts documenting graduation from high school will be required upon graduation prior to the start of the initial semester of enrollment. Failure to document high school graduation will result in the revocation of admission.

Slippery Rock University recommends that official transcripts include a student's complete curricular and grading history, semester and cumulative grade/quality point averages (both weighted and un-weighted if weighting is practiced), and class rank if calculated. If the high school uses a percentage grading scale, any conversion guide to a 4.0 scale is also recommended. Home schooled students should supply transcripts of home school curriculum as well as any previous high school transcripts if applicable.

If an applicant is submitting a GED rather than a high school diploma, the GED documentation must be a copy of the diploma and include the official test results.

Slippery Rock University accepts either the SAT or ACT for the purposes of an admission decision, freshmen course scheduling, as well as Honors Program and Freshmen scholarship consideration. SAT or ACT scores are required for admission consideration for current high school students, home schooled students, or students who graduated from high school less than 2 years ago. Adult students who graduated from high school more than two years ago are not required to submit standardized test scores. Official SAT or ACT scores are results that arrive at the Slippery Rock University Office of Admissions either 1) electronically directly from the testing agency, 2) directly from the high school records office, or 3) delivered on hard copy to the Slippery Rock University Office of Admissions directly from the testing agency. Slippery Rock University does not require ACT or SAT subject tests for admission or scholarship purposes. Only ACT and SAT composite scores are used for admission and scholarship consideration.

Credentials should be directed to the Office of Admissions at Slippery Rock University. Once all credentials are received, Slippery Rock University admits new freshmen on a rolling basis for all terms. Applicants who are offered admission must reply to Slippery Rock University to accept their offers of admissions, along with submitting a required enrollment deposit, before they are considered admitted. Admission offers not acted upon by making an enrollment deposit, are subject to rescission after May 1 of the students senior year of high school. New freshmen students seeking admission for the fall semester are encouraged to apply early in the preceding fall prior to enrollment.

Freshman admission is valid for the term it is offered, or any subsequent term for not later than one academic year, as long as a student does not enroll in college courses at another college/university. Students who in college courses

elsewhere must reapply for admission as a transfer student for the semester they wish to enroll in. Students wishing to defer admission should contact the Office of Admissions.

TOP

## Freshmen Residence Requirement

All new freshmen are required to live on campus. Freshmen students living with their parents or legal guardian within a reasonable commuting distance may request a release from this requirement in order to commute from home. The Residence Life Housing Appeals Board will review all written requests for this exception.

## Transfer Students

Transfer students are students who have graduated from high school and have subsequently enrolled in coursework at another college, university, or other type of post-secondary institution without completing a baccalaureate degree and intend to enroll at Slippery Rock University to pursue a degree-granting program. High School students who complete post-secondary coursework prior to their high school graduation or during the summer after graduation are considered new freshmen. Transfer students must be in good standing and eligible to return to the last institution attended in order to receive an offer of admission to Slippery Rock University. Transfer applicants who receive offers of admission generally hold a minimum cumulative grade point average of 2.0 or greater on a 4.0 scale from all institutions attended. Students who attended Slippery Rock University as degree-seeking students and then stopped attending the university for any reason are considered readmission students. These students should contact their former college dean's office or go on-line for an application for readmission.

Students who plan to transfer to Slippery Rock University must apply for admission to the university by submitting the following credentials to the Office of Admissions:

- A completed Application for Admission (admission applications are available through the Office of Admission and via the web at [www.sru.edu](http://www.sru.edu) )
- A \$30.00 Application fee (non-refundable)
- Official transcripts from each post-secondary institution attended.
- Official high school transcripts may be requested depending on the number of transfer credits earned at the time of application. Students who hold a GED and not a high school diploma, should submit:
  - Official High School transcript, that delineates completed coursework at the time of departure from school, and
  - Official copy of the GED test scores.

A qualified student who is enrolled at another institution at the time of application to Slippery Rock University may be granted provisional admission until all current coursework is successfully completed and final official transcripts are submitted to the Office of Admissions.

## How Are Transfer Credits Evaluated?

An unofficial evaluation of credits earned at a post-secondary institution is provided upon request. An official evaluation is provided when a student accepts the offer of admission by submitting an enrollment deposit. Courses in which grades of C and higher are earned are accepted in transfer provided the student meets all regular admission requirements. Students who qualify for the Academic Passport program may be allowed to transfer credits for which a D grade has been earned (see Academic Passport).

To qualify for graduation a student must fulfill all Slippery Rock University academic requirements and complete the last 30 credits in residence at the university. To be considered for graduation with honors, students must earn a minimum of 60 credits at Slippery Rock University (see Honors at Graduation).

## What is Academic Passport?

The Academic Passport is a transfer program designed to facilitate the transfer of students from Pennsylvania community colleges to State System of Higher Education universities, and to support the transfer of undergraduate credits earned by students at other State System of Higher Education universities. Students who meet the established criteria will be granted an Academic Passport that guarantees admission to the university and the fullest consideration of transfer credits.

### Academic Passport Criteria and Privileges

#### *Students transferring with an Associate Degree*

- Students who have earned a Pennsylvania community college Associate in Arts (AA), or an Associate in Science (AS) degree, which has a liberal arts component of a minimum of 30 credits, will be granted an Academic Passport and will be guaranteed admission to the university if the student has earned a minimum GPA of 2.000 from all institutions attended. The student must apply for admission in accordance with the established university policy on admission.
- Guaranteed admission to the university through Academic Passport does not necessarily guarantee admission to specific academic programs. Some academic majors may require higher admission standards than the Academic Passport requirement.
- For those students holding the appropriate associate degree, the letter grades of "D" or above are acceptable to the university. Some academic majors may require that the letter grade of "C" or above be earned for specific course-work.
- Students must meet all of the established program admission standards required of all Slippery Rock University students.
- In the acceptance and application of transfer credits for students holding an Academic Passport, the university will strive to apply all credits earned at the community college level toward the completion of the baccalaureate degree. In certain circumstances, such as a change in major or intended program of study, it may not be possible to apply all credits earned at the community college.

#### *Students Transferring From Other Pennsylvania State System of Higher Education Universities*

- Students transferring from other Pennsylvania State System of Higher Education universities who have attained a 2.000 GPA or higher in a minimum of 12 credit hours of college level course-work and hold a minimum 2.000 GPA from all institutions attended hold an Academic Passport and are guaranteed admission to the university. The student must apply for admissions in accordance with the established university policy on admission.
- Guaranteed admission to the university through Academic Passport does not necessarily guarantee admission to specific academic programs. Some academic majors may require higher admission standards than the Academic Passport requirement.
- For those students holding the Academic Passport, the letter grades of "D" or above are acceptable to the university. Some academic majors may require that the letter grade of "C" or above be earned for specific course-work.
- Academic Passport students must meet all of the established program admission standards required of indigenous students.

- In the acceptance and application of transfer credits for students holding an Academic Passport, the university will strive to apply all credits to the completion of the baccalaureate degree. In certain circumstances, such as a change in major or intended program of study, it may not be possible to apply all credits earned.

#### **Academic Passport Student Appeals Process**

All questions and appeals regarding the transfer of credits to Slippery Rock University of Pennsylvania should be directed to the Transfer Services area of the Office of Admissions. All questions will be reviewed by the university's official credit evaluators and, if need be, will also be reviewed in consult with the Chairperson of the student's academic department. If a course syllabus is needed to further investigate the student's appeal, it will be the responsibility of the student to provide this information. The Office of Admissions will strive to respond to the student with a final determination within a two week (or less) period of time.

Transfer students are reminded that only the credits, not the grades, earned at other colleges/universities are accepted in transfer by Slippery Rock University. Transferred credits do not affect a student's Slippery Rock University Quality Point Average, which is based only on credits completed at Slippery Rock University.

Transfer students must list all institutions previously attended on their application for admission and submit official transcripts from all previously attended post-secondary institutions regardless of the dates/time in attendance. Failure to do so may lead to withdrawal of admission status and/or dismissal from the university. In addition, students failing to list coursework from other colleges will not be permitted to petition for the acceptance of these transfer credits after they have been admitted or readmitted to the university.

## **Post Baccalaureate Students**

Students who have earned a baccalaureate or higher degree from an approved institution may qualify for admission to earn additional undergraduate credit beyond their degree (see same title in College of Education).

Students interested in post baccalaureate study may take course work for self-enrichment or may earn a second degree or academic certificate. Students pursuing an additional degree must earn a minimum of 30 credits at SRU beyond their first baccalaureate degree and meet all department requirements for the degree in that department.

Post baccalaureate students may not enroll at SRU to add a second major, minor, or other academic credentials to their undergraduate degree without meeting all requirements for a second degree.

Post baccalaureate students interested in learning more about curriculum and degree requirements should contact the related academic department at the university. Questions regarding the actual application process should be directed to the Office of Undergraduate Admission.

#### **Admission Guidelines for Post Baccalaureate students seeking a second degree or teacher certification**

A baccalaureate degree awarded from a regionally accredited institution of higher education is required. Certain programs, such as teacher certification and nursing programs, require applicants to meet additional or more stringent admission criteria, including minimum Quality Point Average requirements. Interested applicants should contact those college or department offices for admission guideline information prior to applying for admission. Post Baccalaureate students seeking to earn a second degree and/or teacher certification may be eligible for financial aid, and should contact the Financial Aid Office for further information.

#### **How to apply for admission as a Post Baccalaureate student seeking a second degree or teacher certification**

The application process for the various categories of post baccalaureate study varies. For additional information regarding the appropriate application process, refer to the postbaccalaureate application.

# Special Student Admission

A special student is a student who does not possess a baccalaureate degree and wishes to enroll for undergraduate level credit coursework at Slippery Rock University for enrichment who does not intend to use the course work toward a degree program at an institution of higher education. Special student non-degree admission is valid for one semester at a time. Students who wish to enroll as special students may reapply for admission for subsequent terms until a maximum of 30 semester hours have been completed, at which time further enrollment is precluded in the special student non-degree status. Special students are not eligible for financial aid.

## Admission Guidelines for Special Student Admission

A special student must be high school graduate or have a GED to enroll. Special student applicants sign a statement on the application for admission to that extent and have one semester of attendance to supply proof of high school graduation (generally either a high school transcript or GED). The Slippery Rock University Fast Track Program also offers admission as special students to qualified high school students seeking to enroll at the University prior to high school graduation. Students interested in the Fast Track program should contact the Office of Undergraduate Admissions directly for more information, and to schedule a meeting to discuss the Fast Track application process. Slippery Rock University offers Dual Enrollment opportunities at participating local high schools. This program allows eligible students to concurrently enroll in high school and college courses. Please check with your high school guidance office regarding dual enrollment options at your high school.

## How to apply for Admission as a Non-Degree Student

Applicants need to supply the following credentials to apply for admission:

- A completed Non-Degree Application for Admission
- Non-Degree student applicants do not pay an application fee
- Official high school transcripts with a graduation date posted (or GED) are required during the term of enrollment. Other credentials may be appropriate for special Slippery Rock University programs. Other transcripts may be required to meet specific course prerequisites.

Special students must enroll and make payment by registration and fee payment deadlines as published in the Class Schedule for the term in which they wish to enroll.

# Transient Students

Any current undergraduate student from another regionally accredited institution of higher education who wishes to enroll for one semester at Slippery Rock University for credit course work while pursuing a degree program at their home college or university may apply for admission as a transient student. Transient students enroll for one semester at Slippery Rock with the intent of returning to their home institution to pursue their degree.

## How to apply for Admission as a Transient Student

Applicants need to supply the following criteria to apply for admission:

- A completed Non-Degree Application for Admission with transient status requested or Summer School Transient Application
- Fall and Spring applicants will have to send an official transcript from their home institution to the Office of Undergraduate Admission

- For summer applicants no other documentation is required, although transient students are strongly encouraged to review their transient attendance and course selection with their academic advisor at their home school. Other transcripts may be required to meet specific course prerequisites. Contact the Office of Undergraduate Admissions or Academic Records and Summer School for more information.

Transient students must enroll and make payment by registration and fee payment deadlines as published in the Class Schedule for the term in which they wish to enroll.

Transient students are admitted through the Office of Admissions for fall and spring semester, and admitted through the Office of Academic Records and Summer School for summer semester.

TOP

## Visiting Students

Any current undergraduate student from one of the other 13 member universities of the State System of Higher Education in Pennsylvania that wishes to enroll for one semester at Slippery Rock University for credit course work while pursuing a degree program at their home college or university may apply for admission as a visiting student rather than a transient student. Visiting students enroll for one semester at Slippery Rock University with the intent of returning to their home institution to pursue their degree. Eligible students should contact the registrar's academic records office at their home institution to review visiting student grading policies prior to enrolling as a visiting student at Slippery Rock.

### How to apply for Admission as a Visiting Student

Applicants need to supply the following credentials to apply for admission:

- A completed Visiting Student Application for Admission

Visiting students must enroll and make payment by registration and fee payment deadlines as published in the Class Schedule for the term in which they wish to enroll.

Visiting students are admitted and processed through the Office of Academic Records and Summer School.

TOP

## Faxed Transcripts/Documents

Transcripts and documents faxed to Slippery Rock University on behalf of students may be accepted unofficially for the purpose of making a conditional admission decision, or for use with non-degree seeking student applicants. No final decision will be made pertaining to acceptance to the university or acceptance of transfer credit until the university receives the official transcripts. Faxed copies of GED certificates and Green Cards are acceptable. If ACT/SAT must be submitted via fax, score reports must be sent from a student's high school in order for them to be accepted.

**Note:** All credentials submitted to Slippery Rock University become the property of Slippery Rock University and will not be returned to the student or forwarded to third parties.

TOP

## Student Right-to-Know and the Clery Act



Notification of Availability of Student Consumer Information (Clery Act) including:

- Annual Security Report
- Freshman and scholarship athlete graduation rates
- Students' Rights of Privacy (FERPA)
- Other information of importance to students

Slippery Rock University's Annual Security Report includes statistics for the previous three years concerning reported crimes that occurred on campus, in certain off-campus buildings or property owned or controlled by Slippery Rock University; and on public property within, or immediately adjacent to and accessible from the campus. The report also includes institutional policies concerning campus security, such as policies concerning alcohol and drug use, crime prevention, the reporting of crimes, sexual assault, and other matters.

View the **Annual Security Report** or contact the Office of University Police at 724-738-3333.

View the **Student Consumer Website** or contact the Office of Academic Records and Summer School at 724-738-2010.

TOP

## International Students

Slippery Rock University actively seeks international students to provide diversity to its student population. Diversity expands the cultural awareness of students and others. The number of students admitted from individual countries may be limited to ensure a balanced representation of cultures. To be considered for admission, the following credentials must be submitted to the Office of International Services:

- Completed application for admission for international students.
- Official certified true copies in English of all secondary and post-secondary school transcripts that show year-by-year listing of courses, grades earned for each course, and credits earned for each course.
- Official certified true copies in English of all secondary and post-secondary school certificates, diplomas, degrees, and examination results.
- Proof of English language proficiency. This usually is determined by a score of 500 (paper test) or 173 (computer based test) or better on the Test of English as a Foreign Language (TOEFL) or by proficiency at the 112 level or better from one of the ELS (English Language Schools) language centers in the United States.
- Verification of applicant's ability to meet educational costs. Financial status is not used to determine academic qualification for admission to the university but must be verified to satisfy the U.S. Immigration and Naturalization Service requirements.

The deadline for submission of all application and supporting credentials is May 1 for fall admission and October 1 for spring admission. New international students are not admitted for summer terms. All applicants are considered automatically for financial aid.

For an application packet or further information, please contact the Office of International Services.

# Contact Information

## Whom to Contact at Slippery Rock About...

Academic Records and Transcripts -Office of Academic Records and Summer School 724-738-2010

Academic Services (FIRST Year Studies (FYRST) Program) 724-738-2009

Academic Services 724-738-2012

Admissions (First-Year Students) 724-738-2015

Admissions (Graduate) - Office of Graduate Admissions 724-738-2051

Admissions (International undergraduate) 724-738-2057

Admissions (Transfer undergraduate) 724-738-2015

Admissions (Readmission undergraduate) 724-738-2015

Admissions (Graduate) - Office of Graduate Admissions 724-738-2051

Alumni - Office of Alumni Affairs 724-738-2018

Athletics - Office of Intercollegiate Athletics 724-738-2021

Campus Tours - Office of Admissions 724-738-2015

Office of Career Education and Development 724-738-2028

College of Business, Information, and Social Sciences 724-738-2008

College of Education 724-738-2007

College of Health, Environment and Science 724-738-4862

College of Humanities, Fine and Performing Arts 724-738-4863

Counseling - Counseling Center 724-738-2034

Diversity and Equal Opportunity 724-738-2016

Financial Aid - Office of Financial Aid 724-738-2044

Health Center - Health Services 724-738-2052

Honors Program 724-738-4003

Information Technology 724-738-2800

International Student Information - Office of International Services 724-738-2057

Multicultural Programs 724-738-2700

Orientation - Office of Orientation 724-738-2067

Registration - Office of Academic Records /Summer School 724-738-2010

Residence Halls - Office of Residence Life 724-738-2082

Retention Services - Office of Retention Services 724-738-2011

Scholarships - Office of Financial Aid 724-738-2044

Student Activities/Organizations/Services/Student Life -  
Office of Student Organizations and Leadership 724-738-2003

Student Employment - Office of Career Education & Development 724-738-2028

Study Abroad - Office of International Services 724-738-2057

Tuition and Fees/Billing/Payment - Office of Student Accounts 724-738-2088

All communications should be directed to the proper university office at:  
Slippery Rock University of Pennsylvania, Slippery Rock, PA 16057

## Course Descriptions

**Select [Add to Portfolio](#) to print descriptions.**

### **ACCT 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **ACCT 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **ACCT 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **ACCT 209 - Financial Accounting**

A study of accounting concepts and principles that govern the recording, processing, and reporting of accounting information. The significance of the financial statements and the analysis of accounting information for investors, creditors, and other external users in the decision making process is emphasized.

Credits: 3

### **ACCT 210 - Managerial Accounting**

A study of accounting concepts and procedures used for cost analysis, cost allocation , planning, and reporting accounting information with an internal perspective. The significance of accounting information and the financial statements for management's decision-making process is emphasized.

#### **Prerequisites & Notes**

ACCT 209

Credits: 3

### **ACCT 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only “basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **ACCT 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **ACCT 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **ACCT 308 - Federal Individual Income Tax**

Study of the federal income tax system, individual returns, rates, income exclusions and inclusions, gains and losses, deductions, alternate tax methods, and withholding of taxes. Prerequisite: Advanced business standing.

#### **Prerequisites & Notes**

ACCT 209

Credits: 3

### **ACCT 310 - Cost Accounting**

A study of control concepts and costing methods including systems for management control, inventory valuation, cost-volume-profit analysis, standard variance analysis, budgeting, decision models, product cost accumulation, and quantitative methods in cost analysis.

#### **Prerequisites & Notes**

ACCT 210, CPSC 210, MGMT/ECON 219

Credits: 3

### **ACCT 311 - Federal Corporate and Transfer Taxes**

Corporate, partnership, estate and trust taxation are covered along with topics such as depletion, net operating losses, and installment and deferred payment sale.

#### **Prerequisites & Notes**

ACCT 308 or permission of the instructor

Credits: 3

### **ACCT 313 - Intermediate Accounting I**

The study of the foundations of accounting theory and practice with emphasis placed on the conceptual framework of accounting and the development of generally accepted accounting procedures including standards promulgated by CAP, APB, FASB, EITF, and other standards setting bodies; and the application of GAAP in accounting for assets and liabilities. Ethical issues and concerns are stressed throughout the course.

#### **Prerequisites & Notes**

ACCT 209

Credits: 3

### **ACCT 314 - Intermediate Accounting II**

A continuation of ACCT 313 covering the detailed examination and application of generally accepted accounting procedures in accounting for stockholders' equity: contributed capital and retained earnings; revenue and expense determination, recognition, and measurement with particular emphasis on pensions, leases, and deferred taxes. Ethical issues and concerns are stressed throughout the course.

#### **Prerequisites & Notes**

ACCT313

Credits: 3

### **ACCT 330 - Accounting Information Systems**

Designing effective accounting information systems to generate reliable accounting information is the focus of the course. The significance of accounting information, transaction cycles, systems controls, document flowcharts, and accounting software are emphasized.

**Prerequisites & Notes**

ACCT 209, CPSC 210

Credits: 3

**ACCT 340 - Legal Environment of Business I**

A study of the various processes available to resolve business disputes and an exploration of complex legal relationships that affect business, including contracts, business formations, employment, and torts and consumer law.

Credits: 3

**ACCT 341 - Legal Environment of Business II**

An analysis of complex transactions including mergers and acquisitions, antitrust law, financial instruments, intellectual property, bankruptcy, environmental, estate and international law.

**Prerequisites & Notes**

ACCT 340

Credits: 3

**ACCT 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

**ACCT 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**ACCT 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

## **ACCT 411 - Auditing Theory and Practice**

Objective examination of financial statements with emphasis on internal control, review and evaluation, sampling theory and application, and procedural testing.

### **Prerequisites & Notes**

ACCT 314

Credits: 3

## **ACCT 412 - Accounting Seminar**

Analysis of current accounting theory and application in practice. Additional focus on ethics, written and oral communication, organization skills, professionalism, and current topics.

### **Prerequisites & Notes**

ACCT 314 or permission of the instructor

Credits: 3

## **ACCT 413 - Advanced Accounting**

In this course, advanced accounting concepts and procedures affecting partnerships, governmental entities, not-for-profit organizations, estates, and trusts are presented. Diverse global accounting issues, diversity in application of generally accepted accounting standards (GAAP), and the harmonization of GAAP in the development of international financial reporting standards (IRFS) as it applies to business combinations, consolidations, and transactions between international entities are highlighted.

### **Prerequisites & Notes**

ACCT 313

Credits: 3

## **ACCT 419 - Auditing Systems**

Continuation of ACCT 411 with emphasis on computerized accounting systems and auditing procedures.

### **Prerequisites & Notes**

ACCT 411 or permission of the instructor

Credits: 3

## **ACCT 450 - Internship**

Supervised placement in selected public and private agencies at appropriate institutions. Prerequisites: Application and permission of the instructor.

### **Prerequisites & Notes**

Application and permission of the instructor

Credits: Up to 12

### **ACCT 490 - Independent Study**

In-depth reading and/or research in an area of particular interest to the student, done with the guidance of a faculty member. Prerequisites: 12 credits of accounting courses, application, and permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

12 credits of accounting courses, application and permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted

Credits: 1 to 3

### **ACCT 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **ACCT 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **ACSD 109 - Developmental Mathematics**

This course covers basic arithmetic skills necessary for successful completion of basic algebra. Topics include basic operations using whole numbers, fractions and decimals, ratios and proportions, percents, and solving equations.

Students not exempted from ACSD 109 must successfully complete this course before enrolling in ACSD 110.

Students must pass a standard proficiency exam to pass this course. Course grading: A, B, C, or NC. Credit earned in this course will not count toward the university's 120 credit hour minimum required for graduation. )

Credits: 3

### **ACSD 110 - Beginning Algebra**

An overview of introductory algebra concepts, this course covers topics such as: simplifying variable expressions, solving equations and applications problems, simplifying polynomials, factoring, algebraic fractions, graphing linear equations, solving systems of linear equations, and simplifying radical expressions. Students who are placed into this course are expected to possess certain minimum competencies in arithmetic skills, and they must pass a standard



proficiency exam to pass this course. Course grading: A, B, C, or NC. Prerequisite: ACSD 109 or exemption from ACSD 109. Credit earned in this course will not count toward the university's 120 credit hour minimum required for graduation.

Credits: 3

### **ACSD 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

#### **Prerequisites & Notes**

N/A

### **ACSD 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ACSD 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ACSD 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ACSD 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ACSD 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ACSD 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only “basis and not as a permanent part of the department’s curriculum.

### **ACSD 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: Varies

### **ACSD 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ACSD 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university’s traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 3

### **ACSD 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ACSD 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ARAB 101 - Arabic Language and Culture I**

This course is the first in a three course series which will provide an introduction to the Arabic language.

Credits: 3

### **ARAB 102 - Arabic Language and Culture II**

This course is the second in a three course series which will provide an introduction to the Arabic language.

**Prerequisites & Notes**

ARAB 101

Credits: 3

**ARAB 103 - Arabic Language and Culture III**

This course is the third in a three course series which will provide an introduction to the Arabic language.

**Prerequisites & Notes**

ARAB 102

Credits: 3

**ARAB 202 - Intermediate Arabic 1**

Comprehensive review of Arabic language and culture with emphasis on developing the students' abilities for proficient oral and written accomplishments.

**Prerequisites & Notes**

ARAB 103 or equivalent

Credits: 3

**ART 100 - 2-D Design**

An introductory studio course examining the underlying structure of basic design in two-dimensional art. Students will be involved in the actual production of two-dimensional design solutions. The history of design is explored, as well as the various techniques employed by artists to express personal visions, communicate ideas or examine and interpret the human experience.

Credits: 3

**ART 101 - 3-D Design**

An introductory studio course examining the underlying structure of basic design in three-dimensional art. Students will be involved in the actual production of three-dimensional design solutions. The history of design is explored, as well as the various techniques employed by artists to express personal visions, communicate ideas or examine and interpret the human experience.

Credits: 3

**ART 105 - Basic Studio Drawing**

This course provides the student with the option to work drawing. An introductory course in the studio techniques and the primary functions of this two dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 106 - Basic Studio Painting**

This course provides the student with the option to work painting. An introductory course in the studio techniques and the primary functions of this two dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 107 - Basic Studio Photography**

This course provides the student with the option to work photography. An introductory course in the studio techniques and the primary functions of this two dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 108 - Basic Studio Printmaking**

This course provides the student with the option to work printmaking. An introductory course in the studio techniques and the primary functions of this two dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 109 - Basic Studio Metalsmithing**

This course provides the student with the option to work metalsmithing. An introductory course in the studio techniques and the primary functions of this three dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 110 - Basic Studio Sculpture**

This course provides the student with the option to work sculpture. An introductory course in the studio techniques and the primary functions of this three dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 111 - Basic Studio Fibers**

This course provides the student with the option to work fibers. An introductory course in the studio techniques and the primary functions of this three dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 112 - Basic Studio Ceramics**

This course provides the student with the option to work ceramics. An introductory course in the studio techniques and the primary functions of this three dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 114 - Basic Studio Digital Media**

This course provides the student with the option to work digital media. An introductory course in the studio techniques and the primary functions of this two dimensional studio discipline. Through creative studio practice, students discover relationships relevant to their role as an artist. (This course may not be repeated.)

Credits: 3

### **ART 115 - Visual Literacy**

A cornerstone course involving the study of visual forms of communication with an emphasis on image-based media (newspaper, magazine, film, television, photography, informational graphics, interactive multimedia, digital games and web-based technologies). Topics include visual interpretation, visual manipulation, visual conventions, the role of visual media in cultural processes and aesthetic appreciation.

Credits: 3

### **ART 121 - Introduction to Visual Arts**

This course provides an introduction to visual arts for high school students enrolled in SRU's Summer Arts Academy.

### **ART 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **ART 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **ART 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **ART 200 - Activities and Fundamentals**

A course providing for the study of child development through creative activities. It includes theory, experimentation with two and three-dimensional processes appropriate to the elementary classroom, methods of motivation, evaluation and classroom management.

Credits: 3

### **ART 205 - Art Synthesis Drawing**

This course provides student options working in drawing. Emphasis is given to the synthesis of the student experience through art.

#### **Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

### **ART 206 - Art Synthesis Painting**

This course provides student options working in painting. Emphasis is given to the synthesis of the student experience through art.

#### **Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

### **ART 207 - Art Synthesis Photography**

This course provides student options working in photography. Emphasis is given to the synthesis of the student experience through art.

#### **Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

### **ART 208 - Art Synthesis Printmaking**

This course provides student options working in printmaking. Emphasis is given to the synthesis of the student experience through art.

#### **Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

### **ART 209 - Art Synthesis Metalsmithing**

This course provides student options working in metalsmithing. Emphasis is given to the synthesis of the student experience through art.

#### **Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

### **ART 210 - Art Synthesis Sculpture**

This course provides student options working in sculpture. Emphasis is given to the synthesis of the student experience through art.

#### **Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

### **ART 211 - Art Synthesis Fibers**

This course provides student options working in fibers. Emphasis is given to the synthesis of the student experience through art.

#### **Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

### **ART 212 - Art Synthesis Ceramics**

This course provides student options working in ceramics. Emphasis is given to the synthesis of the student experience through art.

#### **Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

### **ART 213 - Art Synthesis Design**

This course provides student options working in design. Emphasis is given to the synthesis of the student experience through art.

**Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

**ART 214 - Art Synthesis Digital Media**

This course provides student options working in digital media. Emphasis is given to the synthesis of the student experience through art.

**Prerequisites & Notes**

One course at the basic studio level chosen from ART 100, 101, and 105 through 114. Limited to 6 credits in any one studio.

Credits: 3

**ART 225 - Overview of Western Art**

A sweeping survey intended to acquaint the student with the stylistic development and chronology of the western tradition in the arts. Covers the period and styles prevalent in the Western World from the Beginnings of art to the modern era.

Credits: 3

**ART 226 - Overview of World Art**

A survey course intended to acquaint the student with the stylistic developments and chronology of the visual arts in Asia, Africa, India and South America. Special emphasis will be given to the expression of cultural, religious and aesthetic purposes of art works created outside the western tradition.

Credits: 3

**ART 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

**ART 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3



## **ART 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

## **ART 300 - Art Seminar**

A seminar for advanced art studio majors, designed to sharpen the students' critical and evaluation skills.

### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

## **ART 305 - Advanced Studio Drawing**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with drawing. Students are limited to 9 credits in any one studio.

### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

## **ART 306 - Advanced Studio Painting**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with painting. Students are limited to 9 credits in any one studio.

### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

## **ART 307 - Advanced Studio Photography**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with photography. Students are limited to 9 credits in any one studio.

### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

### **ART 308 - Advanced Studio Printmaking**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with printmaking. Students are limited to 9 credits in any one studio.

#### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

### **ART 309 - Advanced Studio Metalsmithing**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with metalsmithing. Students are limited to 9 credits in any one studio.

#### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

### **ART 310 - Advanced Studio Sculpture**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with sculpture. Students are limited to 9 credits in any one studio.

#### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

### **ART 311 - Advanced Studio Fibers**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with fibers. Students are limited to 9 credits in any one studio.

#### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

### **ART 312 - Advanced Studio Ceramics**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with ceramics. Students are limited to 9 credits in any one studio.

#### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

### **ART 313 - Advanced Studio Design**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with design. Students are limited to 9 credits in any one studio.

#### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

### **ART 314 - Advanced Studio Digital Media**

A continuation of art synthesis courses which provide an expanded range of approaches to the solution of advanced studio problems. This course provides student options in working with digital media. Students are limited to 9 credits in any one studio.

#### **Prerequisites & Notes**

6 credits chosen from ART 205 through 214.

Credits: 3

### **ART 315 - Master Studio**

A course in which master artists and craftsmen speak to the history and development of their discipline. They will also demonstrate techniques and critique student work. May be repeated for a maximum of 9 credits.

Credits: 1

### **ART 317 - Advanced Topics in Elementary Art**

This course will provide elementary education majors with an understanding and an ability to use the elements of discipline-based art education in the classroom. Encompassing the four areas of Art Education (art criticism, art history, aesthetics and art production) the main emphasis of coursework will be to create a framework for rigorous and challenging study of art as it applies to the development of children in an elementary setting.

Credits: 3

### **ART 325 - North American Art History**

Explores the history of the visual arts produced on the North American continent and covers the artistic expressions of Native Americans and the development of European colonial art to the Second World War. Can be repeated for up to 6 credits.

#### **Prerequisites & Notes**

ART 225

Credits: 3-6

### **ART 335 - The Renaissance Tradition**

Explores the historical development of the visual arts in Europe from the mid-14th century to the mid-17th century. Can be repeated for up to 6 credits.

#### **Prerequisites & Notes**

ART 225

Credits: 3-6

### **ART 345 - Foundations of Modern Art**

The development of modern concepts and approaches in the visual arts from the late 18th century up to and including Impressionism in the late 19th century. Can be repeated for up to 6 credits.

#### **Prerequisites & Notes**

ART 225

Credits: 3-6

### **ART 355 - Early Modern Art**

Explores the history of the visual arts during the late nineteenth century culminating with the surrealist movement before the Second World War. Can be repeated for up to 6 credits.

#### **Prerequisites & Notes**

ART 225

Credits: 3-6

### **ART 365 - Art Since 1945**

Explores the development of the visual arts in the late twentieth century. It will cover the social, cultural and stylistic movements from Abstract Expressionism to contemporary art. Can be repeated for up to 6 credits.

#### **Prerequisites & Notes**

ART 225

Credits: 3-6

### **ART 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **ART 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **ART 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **ART 405 - Senior Studio Drawing**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

#### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

### **ART 406 - Senior Studio Painting**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

#### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

### **ART 407 - Senior Studio Photography**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

#### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

## **ART 408 - Senior Studio Printmaking**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

## **ART 409 - Senior Studio Metalsmithing**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

## **ART 410 - Senior Studio Sculpture**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

## **ART 411 - Senior Studio Fibers**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

## **ART 412 - Senior Studio Ceramics**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

### **Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

## **ART 413 - Senior Studio Design**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

**Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

**ART 414 - Senior Studio Digital Media**

This course in studio work utilizes studio facilities in the accomplishment of the students' senior level artistic objectives. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

**Prerequisites & Notes**

6 credits of advanced studio

Credits: 3

**ART 420 - Art History Seminar**

A seminar for students qualified to do independent study and research in art history. Topics selected through consultation with the instructor. Can be repeated for up to 6 credits.

Credits: 3-6

**ART 425 - Senior Project Drawing**

This course provides independent study in drawing, culminating in a public exhibition demonstrating the students' artistic stance.

**Prerequisites & Notes**

Permission of the instructor

Credits: 3

**ART 426 - Senior Project Painting**

This course provides independent study in painting, culminating in a public exhibition demonstrating the students' artistic stance.

**Prerequisites & Notes**

Permission of the instructor

Credits: 3

**ART 427 - Senior Project Photography**

This course provides independent study in photography, culminating in a public exhibition demonstrating the students' artistic stance.

**Prerequisites & Notes**

Permission of the instructor

Credits: 3

**ART 428 - Senior Project Printmaking**

This course provides independent study in printmaking, culminating in a public exhibition demonstrating the students' artistic stance.

**Prerequisites & Notes**

Permission of the instructor

Credits: 3

**ART 429 - Senior Project Metalsmithing**

This course provides independent study in metalsmithing, culminating in a public exhibition demonstrating the students' artistic stance.

**Prerequisites & Notes**

Permission of the instructor

Credits: 3

**ART 430 - Senior Project Sculpture**

This course provides independent study in sculpture, culminating in a public exhibition demonstrating the students' artistic stance.

**Prerequisites & Notes**

Permission of the instructor

Credits: 3

**ART 431 - Senior Project Fibers**

This course provides independent study in fibers, culminating in a public exhibition demonstrating the students' artistic stance.

**Prerequisites & Notes**

Permission of the instructor

Credits: 3

**ART 432 - Senior Project Ceramics**

This course provides independent study in ceramics, culminating in a public exhibition demonstrating the students' artistic stance.

**Prerequisites & Notes**



Permission of the instructor

Credits: 3

### **ART 433 - Senior Project Design**

This course provides independent study in design, culminating in a public exhibition demonstrating the students' artistic stance.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 3

### **ART 434 - Senior Project Digital Media**

This course provides independent study in digital media, culminating in a public exhibition demonstrating the students' artistic stance.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 3

### **ART 450 - Internship**

Professional experiences geared to student vocational goals. Working in galleries, museums or graphic design studios, working with professional artists in their studios and other job-related experiences.

#### **Prerequisites & Notes**

Completion of 24 credits in studio art

Credits: Up to 12

### **ART 475 - Extended Studio Drawing**

Advanced work drawing studio.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

### **ART 476 - Extended Studio Painting**

Advanced work in painting studio.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

## **ART 477 - Extended Studio Photography**

Advanced work photography studio.

### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

## **ART 478 - Extended Studio Printmaking**

Advanced work printmaking studio.

### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

## **ART 479 - Extended Studio Metalsmithing**

Advanced work metalsmithing studio.

### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

## **ART 480 - Extended Studio Sculpture**

Advanced work sculpture studio.

### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

## **ART 481 - Extended Studio Fibers**

Advanced work fiber studio.

### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

## **ART 482 - Extended Studio Ceramics**

Advanced work ceramics studio.

### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

### **ART 483 - Extended Studio Design**

Advanced work in design studio.

#### **Prerequisites & Notes**

Permission of instructor

Credits: 1

### **ART 484 - Extended Studio Digital Media**

Advanced work digital media studio.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

### **ART 490 - Independent Study**

Offers the opportunities of advanced creative activity in a single area of concentration (painting, graphics, ceramics, art history, etc.) to be chosen by the student with the consent of the department. Prerequisites: Junior or senior standing, completion of lower level course offerings in chosen area of concentration, acceptance of project proposal by the department and permission of the instructor, departmental chairperson and dean of the college where the study will be conducted.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

### **ART 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **ART 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **BIOL 100 - Introductory Biology Laboratory**

This laboratory activity course is designed to introduce the non-biology major to science as a process. Basic biological concepts and principles are the focal points for the laboratory activities. The scientific process is used throughout the hands on exercises to facilitate the learning experience.

Credits: 1

### **BIOL 101 - General Biology**

A principles course in biology, designed for non-biology majors, which emphasizes cellular structure and function, Mendelian and molecular genetics, reproduction, and classic and modern concepts of ecology and evolution.

Credits: 3

### **BIOL 102 - Human Biology**

This non-biology majors course considers the human as a whole organism, with emphasis on the interrelationships of organ systems, the relationship to the environment, and human origins and genetics.

Credits: 3

### **BIOL 104 - Principles of Biology**

A laboratory and lecture course that emphasizes basic biological principles to prepare students for subsequent sequential courses required of biology majors.

Credits: 4

### **BIOL 105 - Environmental Biology**

A non-biology majors course which provides an introduction to ecological principles and concepts with an examination of the biological basis of contemporary environmental problems.

Credits: 3

### **BIOL 120 - Practical Botany**

Basic structures, functions, and uses of plants. This course, for the non-biology major, will stress many of the economic and practical aspects of plants. It will also offer historical insights concerning the impact plants have had on world exploration, colonization, etc.

Credits: 3

### **BIOL 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **BIOL 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **BIOL 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **BIOL 201 - General Botany**

Basic biochemical, morphological, and physiological aspects of plant biology as they relate to evolution. Includes a lab.

#### **Prerequisites & Notes**

BIOL 100 & 101 or BIOL 104; minimum average grade of C in prerequisite course(s)

Credits: 4

### **BIOL 207 - Land Plants and Their Environment/Lab**

This course for non-biology majors surveys the common plants native to Pennsylvania. Includes a lab.

Credits: 3

### **BIOL 208 - Introduction to Wildlife Management/Lab**

For non-biology majors, this course covers basic ecological principles with emphasis on the taxonomy and life histories of vertebrate animals. Includes a lab.

Credits: 3

### **BIOL 210 - Medical Microbiology/Lab**

The study of pathogenic microorganisms to include taxonomy, structure, biological activities, host defense mechanisms, disease transmission, and disease states. Includes a lab.

#### **Prerequisites & Notes**

BIOL 101 or 102 or 216

Credits: 3

### **BIOL 212 - General Zoology/Lab**

The anatomy, physiology, ecology, and economic importance of representative animals with emphasis on the understanding of development and the evolutionary blueprint of the animal kingdom. Includes a lab.

#### **Prerequisites & Notes**

BIOL 100 & 101 or BIOL 104; minimum average grade of C in prerequisite course(s)

Credits: 4

### **BIOL 216 - Anatomy and Physiology/Lab**

The first of two lecture and laboratory courses for non-biology majors which surveys the normal structure and function of the human body. It is recommended that 216 be taken prior to 217. Includes a lab.

Credits: 3

### **BIOL 217 - Anatomy and Physiology/Lab**

The second of two lecture and laboratory courses for non-biology majors which surveys the normal structure and function of the human body. It is recommended that 216 be taken prior to 217. Includes a lab.

Credits: 3

### **BIOL 250 - Genetics**

An introductory course that covers transmission genetics, molecular genetics, and population genetics, with an emphasis on problem-solving. Examples in both plants and animals (including humans) are considered. Includes a lab.

#### **Prerequisites & Notes**

BIOL 100 & 101 or BIOL 104; minimum average grade of C in prerequisite course(s)

Credits: 4

### **BIOL 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **BIOL 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

## **BIOL 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

## **BIOL 300 - Social and Ethical Issues in Genetics**

Advances in genetics have the potential to do much good, but they may also create difficult social and ethical issues that we are unprepared for. This course seeks to provide students of all majors with the necessary framework for arriving at their own conclusions about the proper role of genetic technology, for themselves, their families, and society at large.

### **Prerequisites & Notes**

Advanced standing and BIOL 101 or 102 or 104

Credits: 3

## **BIOL 301 - Forest Ecology**

This course is offered as part of the Pymatuning Laboratory in conjunction with the University of Pittsburgh. For more information, please contact the Biology department, 724-738-2023.

### **Prerequisites & Notes**

BIOL 201; minimum average grade of C in prerequisite course(s)

Credits: 3

## **BIOL 302 - Ecology of Amphibians & Reptiles / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

### **Prerequisites & Notes**

BIOL212; minimum average grade of C in prerequisite course(s)

Credits: 3

## **BIOL 303 - Behavioral Ecology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

### **Prerequisites & Notes**

BIOL 201 General Botany OR BIOL 212 General Zoology; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 305 - Wetlands and Aquatic Plants / Lab**

This course deals with the identification and quantification of phytoplankton and vascular hydrophytes, with emphasis placed on the productivity of aquatic plants and their importance as indicator organisms. Includes a lab.

#### **Prerequisites & Notes**

General Biology (Biology 101) or Principles of Biology (Biology 104); minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 306 - Freshwater Biomonitoring / Lab**

This course covers the identification and quantification of fish, zooplankton, and benthos organisms, with emphasis placed on the productivity of aquatic animals and their importance as indicator organisms. Includes a lab.

#### **Prerequisites & Notes**

BIOL 101 or BIOL 104 and CHEM 108; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 307 - Vertebrate Ecology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 308 - Aquatic Ecosystem Management / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL 201 or 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 310 - Plant Systematics / Lab**

Evolutionary trends in floristic morphology are used to examine family relationships among the major groups of vascular plants. Includes a lab.



**Prerequisites & Notes**

BIOL 201; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 311 - Entomology / Lab**

Insects, including their taxonomy, structure, function, ecology, and economic importance.

**Prerequisites & Notes**

BIOL 212; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 313 - Herpetology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

**Prerequisites & Notes**

BIOL212; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 314 - Medical Parasitology/Lab**

A lecture and laboratory course which emphasizes the parasites of medical importance.

**Prerequisites & Notes**

BIOL 210 or 212 and minimum average grade of C in BIOL 100/101 or 104 and 210 or 212

Credits: 1

**BIOL 315 - Medical Mycology/Lab**

A lecture and laboratory course which emphasizes the fungi of medical importance.

**Prerequisites & Notes**

BIOL 210 or 201 and minimum average grade of C in BIOL 100/101 or 104 and 210 or 201

Credits: 1

**BIOL 316 - Medical Immunology/Lab**

A lecture and laboratory course for medical technology majors which emphasizes immunological principals of medical importance. Includes a lab.

**Prerequisites & Notes**

BIOL 210 or 250 and minimum average grade of C in BIOL100/101 or 104 and 210 or 250

Credits: 1

### **BIOL 317 - Ecology and Fungi**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

Credits: 3

### **BIOL 320 - Ornithology / Lab**

Anatomy, physiology, taxonomy, ecology, and behavior of birds. Two weekend field trips are required. Includes a lab.

#### **Prerequisites & Notes**

BIOL 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 321 - Wildlife Management / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 322 - Conservation Biology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL 201 or 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 323 - Field Stream Ecology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

**Prerequisites & Notes**

BIOL212; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 325 - Biometry / Lab**

An introduction to statistical techniques and experimental design as applied to biological problems. Descriptive methods, tests of significance, linear regression, correlation, analysis of variance and covariance, and non-parametric techniques are included. Use of PC and/or mainframe computer is required. Includes a lab.

Credits: 3

**BIOL 326 - Field Methods in Biogeography / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

**Prerequisites & Notes**

BIOL 201 or 212; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 327 - Limnology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

**Prerequisites & Notes**

BIOL 201 or 212; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 330 - Microbiology**

A consideration of the structure, metabolism, growth, and genetics of microorganisms with emphasis placed on the bacteria and viruses. Includes a lab.

**Prerequisites & Notes**

BIOL 250 and CHEM 200 or 201; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 331 - Mammology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 335 - Cell Biology**

Lecture and laboratory investigations related to cellular structure and function. Topics include consideration of extracellular matrix, cell surface, internalization, intracellular signaling and routing, cell-cell communication, renewal, and development. Includes a lab.

#### **Prerequisites & Notes**

BIOL 250 and CHEM 200 or 201; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 340 - Vertebrate Anatomy**

A comparative study of the adult structure of the organs and systems of representative vertebrates. Includes a lab.

#### **Prerequisites & Notes**

BIOL 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 343 - Embryology / Lab**

Developmental processes of vertebrate embryology. A comparative study of gaetogenesis, fertilization, cleavage, gastrulation, organogenesis, and embronic adaptations. Includes a lab.

#### **Prerequisites & Notes**

BIOL 340 ; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 345 - Introduction to Biological Electron Microscopy**

An introduction to the theoretical basis and practice of routine biological electron microscopy. Experiences in the preparation of specimens for transmission and scanning electron microscopy will be presented. The course presentation will involve a one-week workshop and two hours per week during the semester.

Credits: 2

### **BIOL 350 - Evolution**

Stresses evolution as a process. Evidence of early theories, population genetics and ecology, modern synthetic theory, speciation, phylogeny, and the major features characteristic of organic evolution are included.

#### **Prerequisites & Notes**

BIOL 201, 212, 250; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 356 - Field Ecology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL 201 or 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 357 - Environmental Microbiology / Lab**

The interactions of microorganisms with their environment and with other organisms in nutrient cycles and environmental bioremediation, and the effects of microbial activity on plants and animals. Includes a lab.

#### **Prerequisites & Notes**

BIOL 101 or 104 and CHEM 200 or 202; minimum average grade of C in prerequisite course(s)

Credits: 4

### **BIOL 360 - Field Botany**

A field course covering the flora of western Pennsylvania. Students will be expected to identify in the field approximately 225 vascular plants.

Credits: 3

### **BIOL 370 - Molecular Biology**

A lecture and laboratory study of the structure and function of biological macromolecules and of the functions of living cells at the molecular level. Topics include macromolecular structures, gene expression and regulation, and manipulations of genetic material. Includes a lab.

#### **Prerequisites & Notes**

BIOL 250 and CHEM 201 or CHEM 202; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 371 - Vertebrate Field Zoology**

Taxonomy, life histories, and ecological relationships of representative vertebrates are stressed. Several field trips are required.

Credits: 3

### **BIOL 373 - Ichthyology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 375 - Ecology of Fish / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **BIOL 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **BIOL 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **BIOL 400 - Disease Ecology**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

Credits: 3

### **BIOL 401 - Ecology**

Emphasis is placed on the structure, composition, and dynamics of ecosystems. Lab work primarily consists of field studies.

#### **Prerequisites & Notes**

BIOL 101 or 104, and CHEM 108; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 402 - Biogeography / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

Credits: 3

### **BIOL 405 - Animal Physiological Ecology / Lab**

The adaptations of animals to deal with specialized environmental situations are studied at levels ranging from biochemical to organismal. Includes a lab.

#### **Prerequisites & Notes**

BIOL 104, 212, CHEM 107, 108; minimum average grade of C in prerequisite course(s)

Credits: 4

### **BIOL 410 - Animal Physiology**

Basic animal physiological processes, including a synthesis that begins at the molecular level and moves to the more complex cellular and organismal levels. Includes a lab.

#### **Prerequisites & Notes**

Co-requisite: CHEM 201; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 411 - Population Biology / Lab**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

#### **Prerequisites & Notes**

BIOL250

Credits: 3

### **BIOL 412 - Population Biology**

This field course is offered by the University of Pittsburgh to Slippery Rock University students who enroll in the summer program at the Pymatuning Laboratory of Ecology. For more information, please contact the Biology Department, 724-738-2023.

Credits: 3

### **BIOL 430 - Pathogenic Microbiology / Lab**



This course examines the role of bacteria in disease processes with emphasis on host-pathogen interactions and mechanisms by which pathogenic bacteria cause disease. General topics to be discussed include pathogenesis, epidemiology, and characteristics of the major pathogenic bacteria, which allow them to produce a disease state in the host. Includes a lab.

**Prerequisites & Notes**

BIOL 330; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 450 - Biology Internship**

This course will permit the biology major to obtain credit for on-the-job experience in such areas as hospitals, greenhouses, nurseries, sewage plants, fish, and game commissions, park service, plant breeders, and seed producers, veterinary medicine, etc.

Credits: Up to 12

**BIOL 451 - Plant Physiology / Lab**

A lecture-laboratory study of the functional relationships of the plant body including such topics as nutrition, water relations, photosynthesis, photo-periodism, hormones, and growth processes.

**Prerequisites & Notes**

BIOL 201 and CHEM 201; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 465 - Plant Anatomy / Lab**

A macroscopic and microscopic laboratory study of vascular plants. Tissue and organ structure and development in a wide variety of plant groups are emphasized. Includes a lab.

**Prerequisites & Notes**

BIOL 201; minimum average grade of C in prerequisite course(s)

Credits: 3

**BIOL 470 - Histology / Lab**

Microscopic structure and arrangement of tissues in multicellular organisms. Prepared microscopic slides of representative animal organs are studied. Includes a lab.

**Prerequisites & Notes**

BIOL 212; minimum average grade of C in prerequisite course(s)

Credits: 3

### **BIOL 490 - Independent Study**

Independent research under the guidance of a faculty member. Prerequisite: Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (repeatable up to 6 credits)  
Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

### **BIOL 492 - Biology Seminar**

For junior and senior biology majors. Each semester a different area of current research interest is chosen for study.

Credits: 1

### **BIOL 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **BIOL 498 - Selected Topics**

The in depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

### **BIOL 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum

Credits: 3

### **BIOL 595 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1

### **BIOL 598 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CDEV 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **CDEV 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **CDEV 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **CDEV 201 - Interpersonal and Group Dynamics**

Interpersonal behavior in small groups, with attention to group structure, individual factors, communication, and techniques. Treatment of leadership, group pressures, the effect of the group on personality, and group aims.

Credits: 3

### **CDEV 248 - Human Development and Education**

A study of the various stages of physical, intellectual, and emotional development, from pre-school age through adolescence, with reference to the effects upon the learning and educational process.

Credits: 3

### **CDEV 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **CDEV 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **CDEV 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **CDEV 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **CDEV 395 - Undergraduate Workshops**

Special topics of interest to undergraduates and selected community members.

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: Variable

### **CDEV 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **CDEV 490 - Independent Study**

A program of independent work conducted by a student who has demonstrated academic proficiency. Prerequisite: Permission of the instructor, advisor, departmental chairperson, and dean of the college where the study will be conducted.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

### **CDEV 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **CDEV 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **CHEM 104 - Introduction Chemistry I**

This course is the first course in a two-semester sequence for non-science majors which introduces the fundamental principles of Chemistry. Although this course serves as a prerequisite for the next course in the sequence (CHEM 106), it is also designed as a stand-alone course. This allows students to take either this course alone or the two-semester sequence and still obtain a basic understanding of chemical principles. The principles of chemistry are developed and illustrated through selective application. Note: This course is not a substitution for CHEM 107 and students cannot receive credit for CHEM 104 and CHEM 107. Also note that this course does not serve as a prerequisite for CHEM 108.

Credits: 3

### **CHEM 106 - Introductory Chemistry II**

This is the second course in a two-semester sequence of an introductory chemistry course for non-science majors. The course will build on the principles presented in CHEM 104 which is a prerequisite for this course and will focus on the areas of organic and biochemistry. As with CHEM 104, this course will concentrate on the basic principles of chemistry and illustrate them through selected applications.

#### **Prerequisites & Notes**

CHEM 104

Credits: 3

### **CHEM 107 - General Chemistry I**

Topics include nomenclature, stoichiometry, kinetic-molecular theory, gas laws, electronic structure, periodicity, and chemical bonding. Stoichiometry is emphasized.

#### **Prerequisites & Notes**

ACSD 110 and co-requisites MATH 120, or 125 or 225

Credits: 3

### **CHEM 108 - General Chemistry II**

Topics include intermolecular forces, solutions, colloids, chemical kinetics, thermodynamics, equilibria (acid-base, solubility, and complex ion), electro-chemistry, and the transition elements.

#### **Prerequisites & Notes**

A grade of C or higher in CHEM 107

Credits: 3

### **CHEM 110 - Contemporary Chemistry Laboratory**

Laboratory to accompany Chemistry 104 providing basic chemistry and environmentally related experiences. One two-hour laboratory per week.

**Prerequisites & Notes**

Co-requisite: CHEM 104

Credits: 1

**CHEM 111 - General Chemistry I Lab**

A laboratory to accompany CHEM 107. Laboratory experiments are designed to develop basic laboratory skills and illustrate concepts.

**Prerequisites & Notes**

Co-requisite: CHEM 107

Credits: 1

**CHEM 112 - General Chemistry II Lab**

A laboratory to accompany CHEM 108. Laboratory experiments illustrate the concepts of General Chemistry II.

**Prerequisites & Notes**

CHEM 111 and co-requisite: CHEM 108

Credits: 1

**CHEM 113 - Clinical Chemistry Laboratory**

Laboratory to accompany CHEM 103 providing basic chemistry and health-related experiences. One two-hour laboratory per week.

**Prerequisites & Notes**

Co-requisite: CHEM 104

Credits: 1

**CHEM 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

**CHEM 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CHEM 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CHEM 200 - Fundamentals of Organic Chemistry**

A one semester introductory course that covers the most commonly encountered properties of the major families of organic compounds. The course is designed for students pursuing a B.S. in environmental science. Not equivalent to CHEM 201.

#### **Prerequisites & Notes**

CHEM 108, 112

Credits: 3

### **CHEM 201 - Organic Chemistry I**

Modern theories relating molecular structure to chemical reactivity are stressed. Elucidation of molecular structure by infrared, ultraviolet, nuclear magnetic resonance and mass spectroscopy is also covered.

#### **Prerequisites & Notes**

A grade of C or higher in CHEM 108 and CHEM112.

Credits: 3

### **CHEM 202 - Organic Chemistry II**

Modern theories relating molecular structure to chemical reactivity are stressed. Elucidation of molecular structure by infrared, ultraviolet, nuclear magnetic resonance and mass spectroscopy is also covered.

#### **Prerequisites & Notes**

A grade of C or higher in CHEM 201

Credits: 3

### **CHEM 211 - Organic Chemistry Laboratory I**

A laboratory course in which students employ the synthetic techniques and analytical procedures of organic chemistry.

#### **Prerequisites & Notes**

CHEM 108 and 112, and co-requisite: concurrent registration in CHEM 201 or completion of CHEM 201

Credits: 1

## **CHEM 212 - Organic Chemistry Laboratory II**

A laboratory course in which students employ the synthetic techniques and analytical procedures of organic chemistry.

### **Prerequisites & Notes**

CHEM 211 and concurrent registration in CHEM 202 or completion of CHEM 202

Credits: 1

## **CHEM 240 - Industrial Hygiene**

Requirements to preserve worker health and safety will be surveyed.

### **Prerequisites & Notes**

CHEM 107, 108, and 200

Credits: 3

## **CHEM 270 - Industrial Chemistry**

A study of industries with emphasis on economic, technical, and possible ecological factors affecting process design. Includes on-site lectures and discussions of various industries in the area.

### **Prerequisites & Notes**

CHEM 108, 112

Credits: 3

## **CHEM 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

## **CHEM 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

## **CHEM 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.



Credits: 3

### **CHEM 301 - Physical Chemistry 1**

Thermodynamics and chemical kinetics. Cross listed as PHYS301.

#### **Prerequisites & Notes**

CHEM 108, 112, PHYS 212 or 213 and MATH 230

Credits: 3

### **CHEM 302 - Physical Chemistry II**

Quantum mechanics and spectroscopy.

#### **Prerequisites & Notes**

CHEM 108, 112, PHYS 211, 212 or 213 and MATH 231

Credits: 3

### **CHEM 321 - Physical Chemistry Laboratory I**

Principles from Thermodynamic principles will be employed in the laboratory for determining and relating physical properties such as viscosity, surface tension, boiling and freezing points to the identity, and composition of chemical substances.

#### **Prerequisites & Notes**

Co-requisite: CHEM/PHYS 301

Credits: 1

### **CHEM 322 - Physical Chemistry Laboratory II**

Applied principles from Physical Chemistry II lecture will be used for interpreting results from experiments involving kinetics, equilibria, and spectrophotometric data.

#### **Prerequisites & Notes**

Concurrent registration: CHEM 302

Credits: 1

### **CHEM 335 - Biochemistry I**

Investigates the basic theme of intermediary metabolism. A background for this study is gained through study of the chemistry of cellular constituents.

#### **Prerequisites & Notes**

CHEM 202

Credits: 3

### **CHEM 336 - Biochemistry Laboratory I**

A laboratory course in which the student uses techniques employed in biochemical investigations.

#### **Prerequisites & Notes**

CHEM 212 and co-requisite: CHEM 335

Credits: 1

### **CHEM 337 - Biochemistry II**

The study of structures and physical properties of biological molecules.

#### **Prerequisites & Notes**

CHEM335 and 336

Credits: 3

### **CHEM 338 - Biochemistry Laboratory II**

This is a one-credit course in biochemical techniques used in the investigation, isolation and purification of biomolecules. The student will get an exposure to and an appreciation for problem solving utilizing a research-oriented approach.

#### **Prerequisites & Notes**

CHEM 336 and co-requisite: CHEM 337

Credits: 1

### **CHEM 340 - Air Quality Assessment**

A study of the quality of the air environment. Air quality assessment and potential problems will be examined both in lecture discussions and in laboratory or field situations. (Includes ambient air testing.) Three hours of lecture and three hours of laboratory per week.

#### **Prerequisites & Notes**

CHEM 108, 112

Credits: 4

### **CHEM 350 - Analytical Chemistry**

Topics include gravimetric and volumetric analysis of chemical systems. Special emphasis is given to titrimetric methods based on acid-base, complexation, and oxidation-reduction reactions.

#### **Prerequisites & Notes**

CHEM 108, 112

Credits: 3

### **CHEM 351 - Analytical Chemistry Lab**

Students develop practical skills employed in the quantitative analysis of chemical systems.

#### **Prerequisites & Notes**

CHEM 108, 112 and co-requisite: CHEM 350

Credits: 1

### **CHEM 370 - Water Quality Assessment**

Water quality assessment and water quality problems will be examined both in lecture discussions and in laboratory or field situations. Three hours of lecture and three hours of laboratory per week.

#### **Prerequisites & Notes**

CHEM 108, 112

Credits: 4

### **CHEM 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **CHEM 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CHEM 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CHEM 415 - Forensic Analysis**

The application of analytical chemistry including instrumental methods to the investigation and interpretation of crime scene evidence.

**Prerequisites & Notes**

CHEM 350, 351

Credits: 3

**CHEM 416 - Forensic Analysis Lab**

The application of instrumental methods of analysis to the interpretation of crime scene evidence.

**Prerequisites & Notes**

CHEM 350, 351 and co-requisite: CHEM 415

Credits: 1

**CHEM 425 - Instrumental Analysis**

A lecture course to introduce the student to the theory, advantages, disadvantages, limitations, and power of contemporary chemical instrumentation, including computational methods.

**Prerequisites & Notes**

CHEM 350, MATH 225 and PHYS 211

Credits: 3

**CHEM 426 - Instrumental Analysis Laboratory**

A three hour per week laboratory accompanying CHEM 425. Instrumentation and computing technology will be applied to quantitative problems of chemistry.

**Prerequisites & Notes**

Concurrent registration in CHEM 425 and knowledge of a computer language

Credits: 1

**CHEM 430 - Industrial Pollution Control Engineering**

Economic and technical problems will be discussed as related to the abatement of harmful discharges from industrial sources. Systems analysis will be employed in the examination of engineering solutions in the physical or chemical treatment of discharge. Three hours of lecture per week or a field trip.

**Prerequisites & Notes**

CHEM 108 and 112

Credits: 3

**CHEM 442 - Inorganic Chemistry**

A lecture course covering atomic structure, bonding, and properties of inorganic compounds. Coordination chemistry and other topics of current research interest are covered. Offered in alternate years.

**Prerequisites & Notes**

Co-requisite: CHEM 302

Credits: 3

**CHEM 450 - Chemistry Internship**

Supervised placement and research in selected public and private agencies. (Credits earned will be counted as free electives and will not be counted toward the chemistry major.)

**Prerequisites & Notes**

16 credits (minimum) in chemistry and Junior or Senior standing

Credits: Up to 12

**CHEM 452 - Physical Inorganic Chemistry Laboratory**

A laboratory course illustrating techniques of synthesis and characterization of inorganic compounds using a variety of spectroscopic and magnetic measurements, and using computational chemistry methods to investigate the electronic structure of compounds.

**Prerequisites & Notes**

CHEM 302 and CHEM 442

Credits: 1

**CHEM 460 - Polymer Chemistry**

A one semester introductory course that covers the synthesis, kinetics, properties, and applications of polymers.

**Prerequisites & Notes**

CHEM 202 or permission of the instructor

Credits: 3

**CHEM 475 - Advanced Organic Synthesis**

A one semester course that includes an advanced organic chemistry synthesis laboratory. The lecture part covers modern synthetically useful reactions and their applications. The intensive laboratory offers the students an introduction to organic synthesis research, including the use of modern reagents and instruments. Students will become acquainted with techniques of preparation, purification and spectroscopic identifications of organic compounds.

**Prerequisites & Notes**

CHEM 202 and 212

Credits: 4

**CHEM 490 - Independent Study**

Independent research under the guidance of a faculty advisor.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

Permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

**CHEM 491 - Chemistry Seminar**

For junior chemistry majors. On-line searches of the chemical literature lead to oral presentations and written reports in a selected area of research.

Credits: 1

**CHEM 496 - Research**

Offers a student the opportunity to carry out chemical research in the laboratory, employing all departmental facilities, and the experience of writing a thesis under the direction of a faculty mentor.

**Prerequisites & Notes**

Permission of the chairperson

Credits: 1 to 3

**CHEM 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

**CHEM 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

**CHEM 595 - Workshop**

Varies.

Credits: 3

### **CHEM 598 - Selected Topic**

Varies.

Credits: 3

### **CHIN 101 - Chinese Language and Culture I**

This course is the first in a three course series which will provide an introduction to the Mandarin language.

Credits: 3

### **CHIN 102 - Chinese Language and Culture II**

This course is the second in a three course series which will provide an introduction to the Mandarin language.

#### **Prerequisites & Notes**

CHIN 101 or equivalent

Credits: 3

### **CHIN 103 - Chinese Language and Culture III**

This course is the third in a three course series which will provide an introduction to the Mandarin language.

#### **Prerequisites & Notes**

CHIN 102 or equivalent

Credits: 3

### **CHIN 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **CHIN 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CHIN 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CHIN 202 - Intermediate Chinese I**

Comprehensive review of the Mandarin language with emphasis on developing the students' abilities for proficient oral and written accomplishments.

#### **Prerequisites & Notes**

CHIN 103 or equivalent

Credits: 3

### **CHIN 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **CHIN 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CHIN 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CHIN 306 - Survey of Chinese Civilization and Culture**

A study of the important aspects of China's culture, including its geography, history, social and political values, arts, sciences, literature, religion, and ideology. Course is taught in English and open to all interested persons.

Credits: 3



### **CHIN 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **CHIN 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CHIN 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CHIN 490 - Independent Study**

Students have an opportunity to study selected areas in greater concentration. The nature of the topic selected and its treatment are determined in consultation with the instructor.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university’s traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and the dean of the college where the study will be conducted.

Credits: 1-3

### **CHIN 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CHIN 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **COMM 110 - Communication Concepts**

An overview of basic theories concerning the communication process. Recommended as a basis for major study in the area.

Credits: 3

### **COMM 115 - Visual Literacy**

A cornerstone course that involves the study of visual forms of communication with an emphasis on image-based media (newspaper, magazine, film, television, photography, informational graphics, interactive multimedia, digital games and web-based technologies). Topics include visual interpretation, visual manipulation, visual conventions, the role of visual media and cultural processes and aesthetic appreciation.

Credits: 3

### **COMM 120 - Introduction to Digital Photography**

For Communication majors only. This course provides an introduction to the basic concepts of digital photography. Technical and compositional elements for the creation of quality digital photography are covered. Focus on this course is on the commercial application of photography for media production.

Credits: 3

### **COMM 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **COMM 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **COMM 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **COMM 200 - Public Speaking**

Theory and practice of developing and presenting oral messages in a variety of communication contexts. Students will be expected to develop an understanding of the communication process and to demonstrate proficiency in speechmaking.

**Prerequisites & Notes**

ENGL 101 or 102 and sophomore standing

Credits: 3

**COMM 201 - Digital Imaging 1**

This course exposes students to the use and manipulation of electronically generated images through hands-on experience with digital cameras and scanners. Market specific imaging software is used to further enhance and manipulate imagery. Course topics include visual aesthetics, composition, image layering, photo-retouching, spatial relationships, compression techniques, digital painting, editing, color adjustment, filtering, image capture and file formatting.

**Prerequisites & Notes**

COMM 115 or ART 115

Credits: 3

**COMM 215 - Small Group Communication**

Communication problems and processes in small groups. Topics include role and nature of the small group, communication structure, problem-solving techniques, and leadership.

Credits: 3

**COMM 217 - Intercultural Communication**

This course is designed to create a greater understanding of communication patterns and breakdowns which occur as members of one culture group interact with those of another culture group. This course will also foster an increased awareness of particular skills and knowledge that can foster more effective intercultural communication.

Credits: 3

**COMM 231 - Introduction to Public Relations**

This course seeks to introduce public relations students to the history, role, context of public relations, and the process through which public relations professionals establish and maintain lines of communication between an organization and its publics. As such, the course examines the nature of public opinion, methods of audience analysis, message design, and engages in skill development relevant to the professional practice of the public relations.

Credits: 3

**COMM 232 - Publication Production**

This course will be concerned with the nonverbal aspects of print communication, i.e., areas by which the communication process can be enhanced by the use of pictures, charts, graphs, white space, type faces and sizes, etc. It seeks to make students aware of the fact that print communication does not involve only words.

Credits: 3

### **COMM 242 - News Writing**

Basic course in journalistic news structuring techniques and straight news writing. Students write news stories and conduct news interviews.

#### **Prerequisites & Notes**

ENGL 101 or exemption

Credits: 3

### **COMM 247 - Photojournalism**

Photojournalism upholds the professional standards specific to newspaper photography and the recording of news events visually. Students will be introduced to basic photography skills and required to shoot assignments according to print standards on deadline. The course includes issues related to the specialization of shooting sports, spot news, features and special essays. Technical aspects of digital photography and printing for publication are also reviewed.

Credits: 3

### **COMM 248 - Interactive Multimedia 1**

An introduction to the production of written and media based content for a variety of web-based applications. Course topics include the use of content management systems, the basics of web design and blog creation, writing for the web, making media for the web, connecting to social media and web analytics.

Credits: 3

### **COMM 254 - Video Production**

An introduction to video production as communication media. Emphasis on the processes and technologies of single-camera production, including: (1) operation of audio and video recording equipment, (2) development of techniques for composition, lighting, scriptwriting, storyboarding, directing, and editing.

Credits: 3

### **COMM 258 - Interactive Multimedia 2**

An introduction to the aesthetic and technical production of basic multimedia content for a variety of applications and disciplines. Course topics include basic aesthetics of multimedia, and introduction to media coding and industry specific applications, and development of graphic, animated, and interactive media assets.

#### **Prerequisites & Notes**

COMM 201; Corequisite: COMM 248

Credits: 3

### **COMM 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **COMM 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **COMM 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **COMM 305 - Broadcast Journalism**

An examination of topics critical to practice of broadcast journalism, including researching, news-gathering techniques, writing, and production skills. The course will also introduce the components of the broadcasting system in America including economics, programming, regulations, and broadcast technologies.

#### **Prerequisites & Notes**

COMM 242

Credits: 3

### **COMM 307 - Social Media**

This course will provide students with a professional approach to using social media tools in their field, examining both the technological and theoretical perspectives of social media through the hands-on application of the technologies and through reading scholarly writings.

#### **Prerequisites & Notes**

COMM310

Credits: 3

### **COMM 310 - Communication Research Methods**

An introduction to the principles, procedures, and tools of research used in the analysis of the communication situation, including consideration of research design and statistical analysis and the identification, control, and measurement of communication variables. This course is a prerequisite or co-requisite for all upper division communication courses for majors.

#### **Prerequisites & Notes**

COMM 110

Credits: 3

### **COMM 312 - Argumentation**

A study of argumentation as a decision making process. Course focuses on theories of argument, the roles of advocates and opponents, the nature of argument building, evidence, and reasoning and argument in various contexts.

#### **Prerequisites & Notes**

COMM 200. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

### **COMM 314 - Interpersonal Communication**

This is a theory-based course examining the process of communication in dyadic and group settings. Emphasis is placed upon (1) influences upon communication processes and resulting behavior and content and (2) the development of skills and skill assessment in both settings.

Credits: 3

### **COMM 315 - Organizational Communication**

A study of the communication behavior of persons in organizations. Considers the nature of organizations, communication structures in organizations, and the development of communication training in organizations.

#### **Prerequisites & Notes**

COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

### **COMM 318 - Professional Presentation**

Principles and applications of communication techniques and media for presentations and processes common to professional settings.

#### **Prerequisites & Notes**

Senior Standing, CPSC 110 or equivalent experience and familiarity with PC's and software recommended

Credits: 3

### **COMM 332 - Case Studies in Public Relations and Integrated Communications**

This advanced course seeks to develop critical thinking skills through the examination of audience-centered case studies. Students examine how professionals in public relations and integrated communications develop objectives that translate into communication campaigns, illustrating theoretical applications in real-life situations. The development of analytical skills, ethical guidelines, and issues of diversity in communications practice are emphasized.

#### **Prerequisites & Notes**

COMM 231

Credits: 3

### **COMM 333 - Public Relations Writing**

Course seeks to further develop the writing skills of public relations majors. Course assignments focus on expanding students' ability to make critical decisions regarding the process of gathering necessary information, identifying objectives, and creating appropriate messages for specific target audiences.

#### **Prerequisites & Notes**

COMM 231, 242, and 310

Credits: 3

### **COMM 334 - Publication Production 2**

The course continues to expose students to the in-depth study of electronic publication issues, it specifically deals with design and layout issues related to newspapers, annual reports and other multiple-page publications. The course covers issues related to prepares, separations, advanced topography and paper selection.

#### **Prerequisites & Notes**

COMM 232

Credits: 3

### **COMM 335 - 2-D Animation**

An exploration of the aesthetic and technical production of animated and interactive assets for a variety of media applications. Course topics include development of raster and vector graphic elements and design and production of both simple and interactive animation for a variety of applications and disciplines.

#### **Prerequisites & Notes**

COMM 201

Credits: 3

### **COMM 342 - Sports Journalism**

Discussion of ethics and responsible sports journalism, sports information and public relations interview techniques, broadcast sports journalism. Guest lecturers in sports information, public relations, and broadcast journalism may speak on relevant topics.

#### **Prerequisites & Notes**

COMM 242. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

### **COMM 343 - Feature Journalism**

Course will focus on writing feature articles for newspapers and magazines.

**Prerequisites & Notes**

COMM 242

Credits: 3

**COMM 344 - Editorial Function: Copy**

Methods and practices of copy editing that are applicable to newspapers, magazines, and technical publications.

Credits: 3

**COMM 347 - New-Media Journalism**

An examination of new-media forms and the effects of new digital media on media industries and the practice of journalism. The course will examine the differences between traditional and new media journalism in theory and in practice and explore online writing techniques and the impact of social networking sites on the practice of journalism.

**Prerequisites & Notes**

COMM 242 OR COMM 248

Credits: 3

**COMM 348 - Advanced Reporting**

Instruction in writing and reporting techniques beyond the basic news story, focused on detailed, in-depth news-writing and news-gathering practices, including use of human and documentary sources, toward production of public affairs stories; discussions of contemporary journalistic ethics and values.

**Prerequisites & Notes**

COMM 242; 343

Credits: 3

**COMM 350 - Editing for Video**

This course provides students with the opportunity to expand their knowledge of videotape editing. Special attention is given to expanding skill sets associated with digital non-linear editing.

**Prerequisites & Notes**

COMM 254

Credits: 3

**COMM 354 - TV Studio Production**

The course covers the process and technique of multi-camera video production. Students gain experience in studio and control room operation and production roles. The course trains students to integrate video packages produced in the field for presentation in a multi-camera studio broadcast.



**Prerequisites & Notes**

Prerequisites: COMM 254

Credits: 3

**COMM 355 - TV Field Production**

An advanced course in the processes and techniques of single-camera field production and editing. Students will report, video tape, write, and edit packages for television news.

**Prerequisites & Notes**

COMM 254

Credits: 3

**COMM 359 - Interactive Multimedia 3**

This course provides students the ability to move beyond the traditional models of information distribution using image, sound, motion and text. The course introduces the fundamentals of communicating through digital interfaces with an audience. Topics include digital imaging, creating effective interactive projects, models of information structure, analysis of design problems and distribution models. Theories of communication, learning, human-centered design and project evaluation are discussed.

**Prerequisites & Notes**

COMM 258

Credits: 3

**COMM 360 - Corporate Media**

The application of adult training theories, communication theories, and production skills in the planning, design, and implementation of media in the corporate and institutional setting, with emphasis on media management and the use of media in training and development.

**Prerequisites & Notes**

110, 232, 254, or consent of instructor. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

**COMM 362 - Mass Media and Society**

An introduction to the mass media that includes an examination of the historical development, current structure, and functions of the traditional and emerging media. The course will also explore the economic, legal, and ethical issues facing the media and introduce the interaction of the media and society, culture, and the individual.

Credits: 3

**COMM 363 - Audio Production**

An introduction to the aesthetic and technical production of audio for a variety of media and disciplines. Course topics include principles of hearing, sound, acoustics, and psychoacoustics, field and studio recording techniques, tools and applications for single and multi-track production and editing; and the development of vocal techniques associated with on-air announcing for radio, television and online productions.

Credits: 3

### **COMM 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **COMM 393 - Junior Seminar**

The seminar is designed to assist students in conducting a self-assessment while exploring the corporate culture of the communication field. The student will develop a portfolio, attend job seminars, establish a credential file, conduct mock and actual interviews, participate in an on-site mentoring/shadow program and make a public presentation of their portfolio.

#### **Prerequisites & Notes**

Junior standing

Credits: 1

### **COMM 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **COMM 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **COMM 401 - Digital Imaging 2**

This course continues to expose students in the use, manipulation and creation of digital images through hands-on experience with market specific imaging software. Course topics include visual aesthetics, image composition, vector graphics, typography, image scalability and file formatting.

#### **Prerequisites & Notes**

COMM 201

Credits: 3

## **COMM 405 - International Journalism**

An examination of journalism as it is practiced globally - not only by U.S. journalists but also by their counterparts on every continent. We'll analyze news organizations and practices, government policies toward journalism, the roles of old and new media technologies, shifting audiences, and other forces influencing the nature and movement of news within countries and across borders.

### **Prerequisites & Notes**

Junior Standing

Credits: 3

## **COMM 410 - Communication Law**

Discussion of topics related to the field of mass communication (freedom of the press, libel, invasion of privacy, copyright, obscenity, regulations, ethics, and responsibility of the communicator and the agency).

### **Prerequisites & Notes**

Senior standing and a major or minor in communication. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

## **COMM 413 - Communication Theory**

A study of the significant theories of human communication that help to explain and predict the role of communication in determining the social, cultural, and political behavior of the community.

### **Prerequisites & Notes**

Advanced standing. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

## **COMM 415 - Persuasion**

This course will familiarize students with the processes of persuasion, the relationship of persuasion to other forms of human communication, methods for studying persuasion, the theories of persuasion and ethical concerns about persuasion. The perspectives and tools developed in this course should enable the student to develop effective message strategies in work and personal situations.

### **Prerequisites & Notes**

COMM 110, 200. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

## **COMM 419 - Propaganda: Ideology, Communication Warfare, and Social Control**

The purpose of this course is to enhance the critical thinking and analytical skills of students to make them better able to cope intellectually with public argument in a world of where sound-bites and terrorism rule the day. This course addresses the ways in which various ideologies compete for global dominance by employing advocacy strategies and propaganda techniques, a process made both more complex and more consequential by rapidly advancing communication technologies. By manipulating visual imagery, propagandists often exert control over the public's

perception of political, social, and economic reality. Extensive use of art and video examples will be made in this course.

Credits: 3

### **COMM 422 - History of Journalism**

Tracing the history of American journalism from its early English European heritage to modern times. Emphasis on people, organization, and media that have helped establish the press as an American institution.

#### **Prerequisites & Notes**

Advanced standing, COMM 310

Credits: 3

### **COMM 431 - Public Relations and Integrated Communications Campaigns**

Course gives students a thorough experience in conducting public relations and integrated communications campaigns and preparing communication materials. Working in teams, students prepare and conduct the research, planning, implementation and evaluation of an actual campaign for a client.

#### **Prerequisites & Notes**

COMM 231, 332, 333. COMM 310 is a prerequisite or co-requisite for all majors. Also Recommended COMM 232 and/or 254.

Credits: 3

### **COMM 441 - Issues in Journalism**

Study of contemporary controversies and problems in journalism.

#### **Prerequisites & Notes**

Advanced standing. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

### **COMM 449 - Communication Projects**

This course provides students an opportunity to investigate in-depth, approved topics in applied communication.

#### **Prerequisites & Notes**

Junior standing or permission of the instructor.

Credits: 3

### **COMM 450 - Internship**

Supervised placement or research in selected private or public agencies.

#### **Prerequisites & Notes**

Junior status, 18 credits in the major, 2.500 GPA in major and 2.000 GPA overall. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: Up to 12

### **COMM 453 - Media Project Management**

This course is intended to develop student mastery of the emerging environment of digital information through a project-based, team-based course. The course focuses on issues of team work, project management, strategy development and communications both inside and outside of the team. Other topics include budgeting, development of human capital, leadership, time management and legal issues.

#### **Prerequisites & Notes**

COMM 258 AND; COMM 307 OR 347 AND; COMM 359 OR 401.

Credits: 3

### **COMM 454 - Television Graphics**

This course will teach students visual aesthetic principles and technical skills required to produce television graphics. Market specific graphics creation software is used to create broadcast quality graphics. Course topics include composition, element layering, spatial relationships, three-dimensional text and object development, masking, branding and the creation of interactive messages.

#### **Prerequisites & Notes**

COMM 201, COMM 350, AND COMM 354

Credits: 3

### **COMM 455 - History of Broadcasting**

Survey of the history and development of radio and television broadcasting in the United States.

#### **Prerequisites & Notes**

COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

### **COMM 458 - Media Criticism**

A critical examination of film, television, and radio. The course focuses on the formation and application of standards for appraising media and their messages.

#### **Prerequisites & Notes**

COMM 362. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

### **COMM 459 - Issues in Communication Technologies**

An exploration of current and emerging communication technologies including their development and regulation, as well as the social, individual and ethical impact of these technologies.

**Prerequisites & Notes**

COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

**COMM 480 - The Communication Age**

Presentation and discussion of the influences, trends, and issues that permeate the evolution toward a “Communication Age.” Major issues and influences are examined, including significant technological developments and solutions that have been applied to communication needs and opportunities. Discussion addresses marketplace forces; humanistic, social, personal, and ethical issues; and the impact on organizations, workplace, home, education, government, and international functions. Major attention is given to the role of the impact on the individual amidst these far-reaching changes.

**Prerequisites & Notes**

Advanced standing. COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

**COMM 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university’s traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. COMM 310.

Credits: 3

**COMM 493 - Senior Seminar**

The seminar is designed to assist students in conducting a self-assessment while preparing for a variety of professional communication fields. Students will develop materials appropriate for these professional fields and participate in other career related activities. Students will demonstrate proficiency in achieving program outcomes.

**Prerequisites & Notes**

Senior standing and COMM 393

Credits: 1

**COMM 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**COMM 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

COMM 310 is a prerequisite or co-requisite for all majors.

Credits: 3

### **CPSC 100 - Introduction to Computing for Liberal Arts**

A pass/no credit course to provide an introduction to the computer capabilities needed to succeed in an Information Society. This course is designed to support the SRU Computer Competency requirement. Topics will include computer hardware, software, networking, security and privacy, and societal issues.

Credits: 1

### **CPSC 102 - Collaborative Information Technology and Society**

We will explore how the use of collaborative information technology impacts human interaction in globally diverse contexts. The course provides an introduction to the historical development, current use and future directions of collaborative technology in human societies. We will address the ethical, legal and social issues involved in the use of these collaborative technologies.

Credits: 3

### **CPSC 110 - Computer Concepts**

A computer literacy course stressing the use of application software on personal computers. It covers a survey of computers and their impact on society and the use of word processing software. Other application software is also covered, such as spreadsheets and database software, but the particular applications examined may vary from section to section.

Credits: 3

### **CPSC 130 - Introduction to Programming and Information Systems**

An introductory course devoted to programming and to a description of hardware and software concepts. Programming concepts covered include top-down program development using pseudocode, algebraic notation, standard control structures, and arrays in an appropriate programming language. Other topics include binary representation, storage, and general architecture and functioning of a computer system.

Keywords: computer science

#### **Prerequisites & Notes**

ACSD 110

Credits: 3

### **CPSC 140 - Introduction to Programming**

Techniques are stressed that enable systematic development of clear, correct programs. Other topics include data types, algebraic notation, standard control structures, functions; input/output, arrays, and program testing and debugging. The programming language will be taught in a language designed for non-programmers.

#### **Prerequisites & Notes**

ACSD 110

Credits: 3

### **CPSC 146 - Programming Principles**

Techniques are stressed that enable systematic development of clear, correct programs. Other topics include data types, algebraic notation, standard control structures, functions; input/output, arrays, and program testing and debugging. Programs will be written in the department's current official programming language of instruction.

#### **Prerequisites & Notes**

ACSD110

Credits: 3

### **CPSC 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **CPSC 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **CPSC 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **CPSC 207 - Shell Commands and Scripting**

This course introduces the student to the shell commands and shell programming in prevalent operating systems. The architecture of the PC and how it relates to the OS is discussed conceptually and physically examined. The hardware



and software required for data communications are discussed.

Credits: 3

### **CPSC 210 - Productivity Software**

An in-depth, practical study of existing productivity software packages that focuses primarily on decision-support systems for microcomputers. Projects will involve the use of intermediate and advanced features of various software packages, as well as the use of several packages in finding computer-based solutions to information storage and retrieval problems.

#### **Prerequisites & Notes**

CPSC099 or 100 or 110 or 130

Credits: 3

### **CPSC 217 - Structured and Dynamic Web Programming**

This course is designed to cover the features of popular programming languages specifically for creating web pages. Mouse rollovers, browser detects, pop-up windows that launch when a web page loads or in response to specific actions, and form data-checking are just a few of the most popular uses of web programming languages that will be discussed. Programming will be done in a representative programming language.

#### **Prerequisites & Notes**

CPSC 130; CPSC 146

Credits: 3

### **CPSC 236 - Selected Computer Languages**

A selected prevalent computer language(s) other than those taught regularly in other Computer Science courses will be studied and used for programming from an advanced point of view. Topics will include data structure, control structures, data control, modularization and other features of the language. Special applications, if any, of the language will be studied. The student is expected to have programming expertise in at least one other language. For different languages, this course may be repeated for credit toward graduation, but not toward a computer science major or minor.

#### **Prerequisites & Notes**

CPSC 150 or CPSC 217

Credits: 3

### **CPSC 246 - Advanced Programming Principles**

This course places its emphasis on data and their role in software development. Such a study relies on a two-step approach to data abstraction. In the first step, data must be viewed as abstract objects. These objects are selected and specified so as to be useful in the solution of programming projects. In the second step, the abstract objects are translated into program data structures. An extensive examination of data structures provides the student many opportunities to explore the issues of implementing data abstractions. This course will be taught in C++, and will include an introduction to Unix/Linux.

#### **Prerequisites & Notes**

CPSC 140, and MGMT/ECON 219 or any Math course beyond MATH 120, or permission of instructor

Credits: 4

### **CPSC 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **CPSC 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **CPSC 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **CPSC 300 - Challenges of Computer Technology**

An in-depth study of the critical issues related to the computerization of society. Ethical, legal, and moral issues raised by the evolution of computer technology will be discussed.

#### **Prerequisites & Notes**

Advanced standing

Credits: 3

### **CPSC 301 - Practical Computer Security**

A practical introduction to the threats present to the online, electronic community, and how to protect yourself and your organization from them. We will explore the connectivity structure of the Internet, along with the security and criminal threats to members of the online community. The legal, ethical and technical issues related to threats such as viruses, worms, and identity theft will be covered.

#### **Prerequisites & Notes**

CPSC099 or 100 or 110 or 130

Credits: 3

### **CPSC 305 - Introduction to Expert Systems**

An overview of the purpose, structure, and applications of expert systems. Topics covered will include expert systems technology, knowledge engineering, applications of expert systems, expert systems development, and the future of

expert systems.

**Prerequisites & Notes**

CPSC099 or 100 or 110 or 130

Credits: 3

**CPSC 311 - Discrete Computational Structures**

Introduces computational implementations of the mathematical structures most frequently used in computing including sets, equivalence relations, functions, graphs, trees and standard logic. Also introduces automata, formal languages, countability, decidability and computational complexity, Markov and stochastic processes. The course will stress traditional programming and mathematical approaches to these structures such as the use of recursion, elementary data structure, and proof techniques to instantiate, parse, traverse, demonstrate correctness, or use these computational objects.

**Prerequisites & Notes**

CPSC 146 and MATH 120 or higher

Credits: 4

**CPSC 317 - Scripting Languages**

This course emphasizes programming using scripting languages for the purpose of collecting and manipulating system information by system administrators and managers. Programming concepts such as data types and control structures will be discussed as well as operating system commands. A variety of languages and utilities will be discussed such as the Borne shell, Perl, awk, and the Common Gateway Interface. The student is expected to have programming experience and knowledge of the Unix and Windows environments.

**Prerequisites & Notes**

CPSC 207, 217

Credits: 3

**CPSC 323 - Data Base Systems**

Database Systems is a study of relational database concepts as applied to comprehensive information systems. These concepts include data design; modeling; normalization; the use of Structured Query Language (SQL) to define, manipulate and test the database; programmatic access to a database; and practical issues faced by database developers.

**Prerequisites & Notes**

CPSC 130 or CPSC 146 or CPSC 210

Credits: 3

**CPSC 327 - Administration and Security**

Students will learn administration techniques for at least two popular computer operating systems, with special attention to system security. Techniques for managing networking, remote printing, storage allocation, account management, and backup will be discussed. Common techniques for breaching system security, and methods of defense against such attacks, will be emphasized.

**Prerequisites & Notes**

CPSC 317

Credits: 3

**CPSC 333 - Introduction to Computer Forensics**

This is a fundamental course which covers computer forensics. This class covers methods and tools for gaining forensic information from computer systems and networks. It includes case studies of cyber crimes as well as the application and management of cyber forensics. The course introduces students to forensics tools using hands-on experience and the Internet.

**Prerequisites & Notes**

Computer competency or permission of the instructor

Credits: 3

**CPSC 337 - Introduction to Web Graphics**

This course will expose the student to the standards for Web and mobile graphics such as SVG, CSS, and the canvas. Topics include color models, coordinate systems, coordinate transformations, and popular image formats. Covered are vector and pixel-based approaches as well as both declarative and scripted models of graphical content creation.

**Prerequisites & Notes**

CpSc 217, or CpSc 130 and 246.

Credits: 3

**CPSC 343 - File Processing**

A practical study of information storage and retrieval using computer data files. Fundamental file structures and organization are emphasized and exemplified through a programming language. Advanced file structures and organizations are discussed.

**Prerequisites & Notes**

CPSC 150

Credits: 3

**CPSC 353 - Business Data Communications & Technology**

This course provides an introduction and overview of computer networks and data communications. provides an understanding of the underlying concepts of computer networking, email, instant messaging (e.g. texting, multimedia messaging). Introduces several software packages used in business data communications. Emphasis is placed on terminology, techniques and issues in business data communications.

**Prerequisites & Notes**

CPSC 210

Credits: 3

## **CPSC 358 - Simulation**

Models of real-life phenomena are programmed with a current simulation language. These are run and adjusted for accurate prediction and explanation. Other simulation languages are surveyed, and needed statistical background is reviewed.

### **Prerequisites & Notes**

CPSC 146 and a Statistics course

Credits: 3

## **CPSC 365 - Management Information Systems**

Managerial and technological issues that are necessary to understand, establish, manage and use information systems in all functional areas of organizations.

### **Prerequisites & Notes**

CPSC 210 and MGMT 351

Credits: 3

## **CPSC 370 - Computer Organization & Architecture**

This course will study computer organization topics such as data representation, Boolean logic, memory hierarchy, and data path design. It will also study computer architecture topics such as CPU control, pipelining and instruction set architecture. Students will learn the assembly level machine organization by means of a standard assembly language.

### **Prerequisites & Notes**

CPSC 246

Credits: 3

## **CPSC 374 - Algorithms and Data Structures**

This course establishes a foundation for the systematic study of algorithms and data structures. The integration of these two concepts into a single organizational structure emphasizes that algorithms and data structures are inseparably intertwined. This course builds and elaborates on the concepts introduced in CPSC 140 and 150. This course will be taught in a language other than that used in CPSC 140 and 150.

### **Prerequisites & Notes**

CPSC 150

Credits: 3

## **CPSC 376 - Programming Languages**

Programming languages are studied from the view of users. Features of common computer languages are surveyed along with developments in newer languages. The goal is deeper understanding of computer languages. Topics include compilation, interpretation, data types, data structures, binding, scope, sequential and parallel control mechanisms, conversions, storage management, reliability, portability, modularity, documentation, implementation methods, and language extensibility.

**Prerequisites & Notes**

CPSC 246

Credits: 3

**CPSC 378 - Theory of Computation**

Both the classical and the contemporary theories of computation will be discussed in this course. The topics covered include the theory of automata and formal languages, computability by Turing machines and recursive functions, uncomputability, and proof of correctness of code.

**Prerequisites & Notes**

MATH 131 or CPSC311

Credits: 3

**CPSC 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**CPSC 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**CPSC 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**CPSC 413 - Systems Analysis**

A course in computer-based information systems. Course content includes: foundations of information science, techniques for system development, information architectures, and resource allocations. Case studies are discussed and utilized as class projects.

**Prerequisites & Notes**

CPSC 323

Credits: 3

**CPSC 417 - Advanced Web Technologies**

The course emphasizes up-to-date technologies that enable the development of interactive Web applications. New Web standards and their applications and development toolkits will be exemplified. Advanced concepts in scripting languages for the Unix and Windows environments will be discussed.

**Prerequisites & Notes**

CpSc 317 (Scripting Languages)

Credits: 3

### **CPSC 423 - Computer Networks**

This is an introduction to computer networks and data communications. Course content includes: the layered model; transmission and multiplexing; data link protocols; packet, point-to-point, and satellite transmission; local area networks; security and privacy. Examples of some well-known networks will be studied.

**Prerequisites & Notes**

CPSC 150 or CPSC 217

Credits: 3

### **CPSC 427 - Interface Design**

This Information Technology majors' course uses graphical user interface design concepts to introduce interface design possibilities. This senior-level course requires students to produce an intricate interface that utilizes systems design, information management, systems administration and security, and programming concepts from lower-level courses. This course is intended as a capstone course that introduces human user interface theory and practice.

**Prerequisites & Notes**

CPSC 317 and CPSC 413

Credits: 3

### **CPSC 443 - Software Project Management**

An introduction to project management in the information systems, or IT development, area. Provides an understanding of the purpose, methods and benefits of process management by exposing the student to the concepts, practices, processes, tools and techniques used in process management for software development.

**Prerequisites & Notes**

CPSC 323 - Database Systems

Credits: 3

### **CPSC 450 - Internship**

Professional work experience performed as an intern at selected agencies supervised both by the agency and by the Computer Science Department.

**Prerequisites & Notes**

Computer science or information systems major with junior or senior standing, 2.750 GPA overall, 3.000 major GPA and application to the department one semester prior to the term in which the internship is to be undertaken

Credits: Up to 12

### **CPSC 456 - Introduction to Computer Graphics**

This course introduces the basics of interactive computer graphics including software and hardware requirements for computer graphics systems, graphics data structures, algorithms and programming languages, raster and random display devices, and graphics applications. Students will work with dedicated graphics computers in completing laboratory exercises and course projects.

#### **Prerequisites & Notes**

CPSC 374 or permission of the instructor

Credits: 3

### **CPSC 464 - Principles of Concurrent Programming and Operating Systems**

An introduction to operating systems with emphasis on fundamental principles. These include store management, processor management, file systems, and input/output. Laboratory exercises are assigned using a language that supports concurrency. Distributed and “real time” illustrations are used, as well as standard operating system illustrations.

#### **Prerequisites & Notes**

CPSC 370, 374

Credits: 3

### **CPSC 466 - Compiler Design and Implementation**

This is an introduction to language translation. Topics include specification of languages and its relation to automata, lexical analysis, finite state machines, context free languages, LL and LR parsing methods, syntax directed translation, error recovery, code generation, and portability.

#### **Prerequisites & Notes**

CPSC 370, 374, 376 and 378

Credits: 3

### **CPSC 474 - Advanced Architecture & Parallel Computing**

This course will investigate the architecture and software models involved in parallel computing. We will explore both shared-memory and distributed-memory systems, along with the algorithms and languages involved in those systems.

#### **Prerequisites & Notes**

CPSC 370 and 374

Credits: 3

### **CPSC 476 - Artificial Intelligence**

A survey of artificial intelligence topics including heuristic programming, search techniques, knowledge representation, expert systems, vision and speech in automators, pattern recognition, and robotics.



**Prerequisites & Notes**

CPSC 374 or permission of the instructor

Credits: 3

**CPSC 478 - Analysis of Algorithms**

An advanced study of algorithms and data structures. Analysis of algorithms, space and time complexity, and the NP classes will be considered. Significant illustrative individual or group programming projects are required. Examples may be drawn from heuristic programming, encipherment, natural language processing, object code generation, combinatorial analysis, graphics, robotics, relational databases, or other algorithmic issues of current importance.

**Prerequisites & Notes**

CPSC 374 or permission of the instructor

Credits: 3

**CPSC 480 - Machine Learning and BioInformatics**

A survey of machine learning topics including heuristic programming, search techniques, knowledge representation, expert systems, fuzzy logic, neural networks, evolutionary algorithms, and swarm intelligence for solving problems in the area of BioInformatics.

**Prerequisites & Notes**

CpSc 374

Credits: 3

**CPSC 488 - Software Engineering**

The course is the study of software engineering principles and design. The course will emphasize requirement analysis, design, testing, debugging and implementation of a semester long project. Students will work in groups for the project to be implemented. There will be multiple phases for the design and implementation of the project. The project will be implemented using a standard programming environment.

**Prerequisites & Notes**

CPSC 374 or permission of the instructor

Credits: 3

**CPSC 490 - Independent Study**

Supervised study in a special interest area. Prerequisites: Two computer science courses selected from 370 or above, permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

### **CPSC 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **CPSC 498 - Selected Topics**

The in-depth examination of a specific topic. For different topics, this course may be repeated for required elective credits toward a computer science major or minor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 1 to 3

### **CPSC 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **CPSC 595 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CPSC 598 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CRIM 105 - Human Diversity**

An orientation to living and working with diverse populations within modern American society, including examination of the strengths and stresses associated with diversities.

Credits: 3

### **CRIM 110 - Introduction to Criminology and Criminal Justice Systems**

This course covers the basic principles of the criminal justice system and criminological theory. Students will be introduced to policing, corrections, the criminal court process, legal procedures, and criminological theories, among other fundamentals of the criminology discipline.

Credits: 3

### **CRIM 115 - Proseminar**

This is a writing intensive course that prepares criminology/criminal justice students for standard academic and professional expectations for the field. This class encompasses writing requirements and style for criminal justice; basic library research skills; exploration of program outcomes and examination of issues related to the criminal justice professions.

COURSE BEGINS FALL 2013

Credits: 3

### **CRIM 190 - Experimental**

A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **CRIM 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CRIM 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CRIM 253 - American Policing**

This course covers the introductory elements of US policing and law enforcement. Topics of study include operations, legal aspects, ethics, diversity and other key issues.

COURSE BEGINS FALL 2013

Credits: 3

### **CRIM 263 - Introduction to Criminal Procedure**

This course covers the processes of criminal procedure. It includes landmark legal cases; search and seizure requirements; use of force; arrest; interrogation and court structures.

COURSE BEGINS FALL 2013

Credits: 3

### **CRIM 273 - American Corrections**

Examines the legally sanctioned methods of dealing with lawbreakers. The correctional methods studied will include institutional and community corrections, and the newer dispositions such as community service, restitution, and electronic monitoring. Current issues examined will include prison gangs, the problem of AIDS, women in prison, and prison privatization.

#### **Prerequisites & Notes**

CRIM205

Credits: 3

### **CRIM 290 - Experimental**

A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **CRIM 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CRIM 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **CRIM 301 - Theoretical Criminology**

A critical review of pure and applied theory within the field of criminology, including coverage of classical, biological, psychological, sociological, economic, political, and integrated theories of the causes of crime.

#### **Prerequisites & Notes**

CRIM 110 AND 115

Credits: 3

### **CRIM 317 - Statistical Methods**

Introduction to basic statistical concepts and research techniques used in social research. Also listed as PROF and SOWK 317

**Prerequisites & Notes**

SOWK 251 OR CRIM 110; AND CRIM 115

Credits: 3

**CRIM 318 - Research Methods**

Major methods and procedures used in sociological research. Also listed as PROF and SOWK 318

**Prerequisites & Notes**

CRIM 115 AND 317

Credits: 3

**CRIM 321 - Criminal Justice interventions 1**

A review of basic theories, philosophies, methods, and skills that underlie successful community and correctional-based interventions with individuals serviced by the federal, state, and/or local criminal justice systems. Coverage will include the overrepresentation of minorities within the American correctional system and service provision to culturally diverse populations.

**Prerequisites & Notes**

CRIM 110, 115 AND 273

Credits: 3

**CRIM 322 - Criminal Justice Interventions 2**

A review of basic theories, philosophies, methods, and skills that underlie successful community and correctional-based interventions with an emphasis on groups and families serviced by the federal, state, and/or local criminal justice systems. Topic coverage also includes examining the overrepresentation of minorities under correctional supervision and service provision to culturally diverse populations.

**Prerequisites & Notes**

CRIM 110, 115 AND 273

Credits: 3

**CRIM 333 - Crime, Justice and Society**

An exploration of the major theories of crime with an emphasis of those contemporary theories that explore the relationship of race, gender, and crime. Topics may include prostitution, rape, hate crimes, and crimes against the gay community.

Credits: 3

**CRIM 343 - Criminal Investigations**

This course provides an introduction to criminal evidence and investigations. The topics include how evidence is collected and developed, the different types of evidence, the role of evidence in investigation, and basic investigative principles.

**Prerequisites & Notes**

CRIM 115

Credits: 3

**CRIM 345 - Juvenile Delinquency**

The behaviors of adolescents in modern societies have resulted in the need for society to exert various methods of social control. The reasons for these formal and informal control strategies are examined from sociological view of institutional changes.

**Prerequisites & Notes**

CRIM 110 AND 115

Credits: 3

**CRIM 360 - Police and Society**

This class examines the role of law enforcement and policing in contemporary society. This course also covers the history of policing, policing theory, police culture, different law enforcement agencies, and the social role of modern police agencies.

**Prerequisites & Notes**

CRIM 110 AND 115

Credits: 3

**CRIM 380 - Women & the Criminal Justice System**

This course will focus on theoretical and contemporary issues involving female practitioners, victims and offenders in the criminal justice system. Students will have the opportunity to become acquainted with and evaluate the political, legal and social issues of crime relating to women. This course will also examine diversity issues. More specifically, this course will examine how gender, race/ethnicity and class are related to the way they are treated in the criminal justice system in the U.S.

**Prerequisites & Notes**

CRIM 110 AND 115

Credits: 3

**CRIM 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**Prerequisites & Notes**

CRIM 115

Credits: 3

### **CRIM 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CRIM 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

CRIM 115

Credits: 3

### **CRIM 404 - Adjudication in Crime and Justice**

This course addresses the history, legalities, trends and controversies in law adjudication as it pertains to issues of crime and justice. Students will examine the topics of criminal law, landmark cases, prosecution, defense, court procedures and decision-making and their interaction with our society.

#### **Prerequisites & Notes**

CRIM 110 AND 115

Credits: 3

### **CRIM 405 - White Collar Crime**

This course explores the complex issues surrounding white collar crime. In terms of white collar crime, the topics addressed may include: the complexities of defining it, theoretical explanations for it, the economical, physical and social costs that result from these types of crimes, and the issues the criminal justice system faces in trying to control it.  
COURSE BEGINS FALL 2013

#### **Prerequisites & Notes**

CRIM 301

Credits: 3

### **CRIM 408 - Capstone: Ethics and Criminal Justice**

This course examines the traditional schools of ethical thought and how they are applicable to the field of criminology, crime, and justice. Students will study formal works in ethics and morality and develop understanding of their role in the criminal justice professions as well as issues of crime, law, and society.

#### **Prerequisites & Notes**

Senior standing CRIM Majors

CRIM 105, CRIM 110, CRIM 115, CRIM 273

Credits: 3

### **CRIM 414 - Criminal Justice Policy**

This course explores the contemporary criminal justice system, major systems of social control and their policies and practices; as well as policies related to courts, victimology, juvenile justice and comparative criminal justice. These policies will be studied through the lenses of individual liberties, collective formalized controls, multicultural factors and issues related to race, gender and diversity.

#### **Prerequisites & Notes**

CRIM 110 AND 115; CRIM majors or minors only; Junior or Senior standing

Credits: 3

### **CRIM 416 - Community Corrections**

The course explores the origins of community corrections and its role in the American criminal justice system. Starting with pre-arrest diversion, the course covers the major issues and topics associated with community correction programs.

#### **Prerequisites & Notes**

CRIM 110, 115 AND 273

Credits: 3

### **CRIM 450 - Internship**

Supervised placement in selected professional agencies.

#### **Prerequisites & Notes**

CRIM 115; Permission of field committee

Credits: Up to 12

### **CRIM 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

CRIM 115

Credits: 3

### **CRIM 495 - Workshop**



A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **CRIM 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

CRIM 110 AND 115

Credits: 1 to 3

### **DANC 100 - Introduction to Dance**

This course will include a comprehensive overview of dance as an art form, entertainment, and social activity. A broad historic overview of dance will be presented, as well as information on the role of the dancer, choreographer, and audience. Specific dance genres such as ballet, modern, jazz, and world dance will also be the focus of this course. Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 3

### **DANC 101 - Wellness for Dancers**

The first component of this course will cover body conditioning methods, injury prevention and basic concepts of anatomy and kinesiology. Additionally this course may include, but not be limited to, nutrition, weight management, fitness and strength practices specific to the needs of the dancer.

The second component of this course will cover time/stress management, study skills and an introductory approach to writing techniques and research methodologies.

Students may be required to attend on-campus dance events and some may require a fee.

Credits: 3

### **DANC 105 - Dance Fundamentals**

Students will explore the elements of dance through creative activities and have movement experiences in the dance genres of folk, square and social dance. Students will gain an understanding of dance as an academic discipline, as well as the importance of dance as an art form, entertainment, and life-long social/recreational activity.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 2

### **DANC 120 - Modern Dance I**

This beginning level course sets the foundation for all modern dance experiences, introducing the student to the concept of proper alignment; the ability to demonstrate and synthesize corrections and comments; the basic movements of modern dance (including the correct vocabulary and technique); a knowledge and understanding of the elements of dance-space, time and energy; an understanding of performance and performing; and an understanding of dance as an art form.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1

### **DANC 121 - Ballet I**

The beginning student will develop a basic understanding of ballet terminology and technique and develop artistry through performance.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1

### **DANC 122 - Jazz Dance I**

Jazz I focuses on establishing a basic foundation in jazz with emphasis on proper alignment, technique, and the unique stylistic components of Jazz.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1

### **DANC 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 3

### **DANC 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 199 - LMA/Performance Techniques**

This course will focus on the theoretical and practical application of Laban Movement Analysis and dance performance skills. Students will be encouraged to explore the relationship between research, concept development and personal style through the performance of original solo choreography.

Students may be required to attend on and off campus dance events; some may require of fee.

**Prerequisites & Notes**

DANC 200 and DANC 224

Credits: 2

## **DANC 200 - Dance Composition I**

This course will be an introduction to the elements of dance (space, time, and energy) and to the practice, theory, and art of dance composition. Experiences in solo and ensemble compositions will focus on improvisation, and lead to understanding content, aesthetics, creating, structuring, and ultimately choreography.

Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Dance 224 Improvisation

Credits: 3

## **DANC 216 - Principles of Dance Production**

This course provides knowledge and practical experience in the many aspects of dance production and performance.

Areas of study will include: auditions, theories and techniques of rehearsals, lighting, make-up and costuming for dance, audio and video recording procedures, and the technical requirements for dance production and performance.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 3

## **DANC 220 - Modern Dance Technique: Level II**

This modern dance technique course provides students with the theoretical and practical information needed to improve technical skills, moment mechanics, and performance quality. The course may be repeated for a maximum of 6 credits. Course content will vary each semester. Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Must be a dance major or minor.

Credits: 2

## **DANC 221 - Ballet II**

This course will develop technique and artistry, and will include barre and center exercises of increased complexity and difficulty. The student will develop precision in executing movements and develop the facility to learn movements quickly. The course may be repeated for a maximum of 6 credits. Course content will be different each semester. Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Must be a dance major or minor.

Credits: 2

### **DANC 222 - Jazz Dance II**

This intermediate level course is a furthering and continuation of setting the foundation in Jazz Dance I. This second level jazz technique course is designed to refine and enhance the student's performance skills, technique, and stylistic approaches to jazz dance. Course may be repeated for a maximum of 6 credits. Course content will be different each semester.

Students will be required to attend certain dance events for this course; some may require a fee.

#### **Prerequisites & Notes**

Must be a dance major or minor

Credits: 2

### **DANC 223 - Creative Dance for Children**

The intellectual and artistic impact of Creative Dance for Children, in both academic and studio settings serves as the primary focus of this course. Laban-based movement principles will be explored through creative and improvisational experiences leading to lesson and unit plans in dance addressing a variety of academic areas suitable for use by classroom teachers and dance specialists. Students will gain an appreciation for dance as an art form and an understanding of how dance can address several academic disciplines most appropriate for inclusion in a grade K-5 curriculum. State and national dance standards will be addressed with additional experiences in lesson planning, pedagogy and peer teaching.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 2

### **DANC 224 - Improvisation**

This course provides the student opportunities to explore the processes of discovering, creating and performing movement spontaneously through experiential practice, creative research and writing. Course content will vary each semester. Students will be required to attend certain dance events for this course; some may require a fee. The course may be repeated for a maximum of 4 credits.

#### **Prerequisites & Notes**

Must be a dance major or minor

Credits: 2

### **DANC 271 - Dance Technology**

This course will introduce the student to three software packages for Macintosh with specific creative applications to dance as an art form. Software includes computer choreography (Life Forms), digital video recording and editing (Adobe Premiere), and interactive authoring (Authorware).

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 3

### **DANC 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum. Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 299 - Dance Rehearsal & Production**

This course provides dance majors and minors the opportunity to receive credit for the numerous hours spent in rehearsals and performances. Students will select specific activities and then develop a contract for completion of responsibilities and evaluation. Tasks may include choreographer, rehearsal assistant, rehearsal and performance as a dancer, publicity or as member of the technical support staff during performance (stage manager, running crew, usher, lighting). This course requires an audition and/or permission of the faculty member of record.

Credits: 1

### **DANC 300 - Dance Composition II**

This second level of dance composition will include creating choreography based on specific forms of movement and music, emotion oriented and movement oriented dances, dances utilizing props and sets, and site-specific dance. Students will be required to attend certain dance events for this course; some may require a fee.

#### **Prerequisites & Notes**

DANC 200

Credits: 3

### **DANC 305 - Society and Social Dance**

This course will examine the relationship between social dance and the social, political and cultural climate of the society in which the specific dance forms were created and performed. Emphasis will be placed on 20th century American social dance forms and styles.

Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

\*No prerequisites. \*Introduction to DANC 62100 highly recommended.

Credits: 3

**DANC 318 - Dance History I: Through the Nineteenth Century**

This course examines the historical and philosophical aspects of dance as an art form and as a social and cultural medium through the nineteenth century. The focus is on approaches, styles, and contributions of leading dance artists of the historical eras.

Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

DANC 100

Credits: 3

**DANC 320 - Modern Dance Technique: Level III**

This third level modern dance technique course provides students with the theoretical and practical information needed to extend their knowledge and acquire additional understanding of technical skills, movement mechanics, and performance quality. The course may be repeated for a maximum of 6 credits. Course content will vary each semester. Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Must be a dance major or minor.

Credits: 2

**DANC 321 - Ballet III**

Exercises learned in levels I and II increase in speed, complexity and duration in level III. New movements and their terminology will be introduced. Emphasis is also placed on the development and improvement of the student's performance qualities. The course content will vary each semester. Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Must be a dance major or minor.

Credits: 2

**DANC 322 - Jazz III**

This third level course requires the student with a proficient level in jazz dance to extend their knowledge and acquire additional understanding of technical material and performance quality. Emphasis will be placed on the attainment of artistic qualities essential for the performance of jazz dance repertory. Course may be repeated for a total of 6 credits. Course content will be different each semester.

Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

must be a dance major or minor.

Credits: 2

### **DANC 323 - Teaching of Dance**

This course is designed to introduce students to the theory and practice of sound dance teaching and ethical teaching practices. Information on critical thinking, teaching and learning styles, imagery, diversity, and assessment will be explored. Students' abilities and strengths as teachers will be assessed and evaluated throughout the semester. This course must be taken with Field Experience, DANC 350, which allows the students to have practical teaching experiences.

Students will be required to attend certain dance events for this course; some may require a fee.

#### **Prerequisites & Notes**

DANC 223 and DANC 326; co-requisite DANC 350

Credits: 3

### **DANC 324 - Music for Dance**

This course is designed to provide students with information regarding music for dance performance, production, and accompaniment.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 3

### **DANC 326 - Dance Kinesiology**

This course includes the study of human movement specific to dance, with emphasis on the anatomical principles and the laws of physics as they apply to dance technique and performance. The course includes structural and neuromuscular analyses including individual analysis of alignment, muscular imbalances, body types, conditioning needs and movement behavior.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 3

### **DANC 350 - Field Experience in Dance Technique**

Field Experience provides the opportunity for students to teach in private studios, recreation centers and/or the public/private school systems. To be taken concurrently with DANC 323.

Students will be required to attend certain dance events for this course; some may require a fee.

#### **Prerequisites & Notes**

DANC 223 and DANC 326; co-requisite: DANC 323

Credits: 1

### **DANC 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 3

### **DANC 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 399 - Repertory**

This course provides students with an in-depth experience in an aspect of scholarly research, performance experience and/or creative process. This course may be repeated for a total of 6 credits. Course content will vary each semester the course is offered.

Students will be required to attend certain dance events for this course; some may require a fee.

#### **Prerequisites & Notes**

Dance majors and minors only.

Credits: 2

### **DANC 419 - Dance History II: Twentieth and Twenty-first Centuries**

This course examines dance in the 20th and 21st centuries, including ballet, jazz, modern and world dance genres. The aesthetics and philosophies of leading dance artists will be explored.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 3

### **DANC 420 - Modern Dance Technique: Level IV**

This fourth level modern dance technique course provides students with the theoretical and practical information needed to synthesize their knowledge and acquire an advanced understanding of critical thinking, technical skills, body awareness, body alignment and performance quality. The course may be repeated for a maximum of 6 credits.



Course content will vary each semester. Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Junior or senior level dance majors or minors.

Credits: 2

**DANC 421 - Ballet IV**

In this fourth level course, students will review and build upon the content of levels I-III and will learn advanced-level movement and terminology. The focus of the course will be on technique and artistic presentation. Course may be repeated for a maximum of 6 credits. The course content will vary each semester. Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Must be a dance major or minor; Permission of Instructor.

Credits: 2

**DANC 422 - Jazz IV**

This fourth level course is designed to enhance the student's development of performance skills, technique, and styles of jazz dance. Emphasis will be placed on the attainment of artistic qualities essential for the performance of jazz dance repertory. Course may be repeated for a total of 6 credits. Course content will be different each semester. Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Must be a dance major or minor; permission of instructor

Credits: 2

**DANC 424 - Contemporary Partnering**

This course investigates the techniques of Contact Improvisation to develop contemporary partnering. Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

DANC 224

Credits: 2

**DANC 425 - Senior Synthesis**

Advanced level research, writing and discussions will lead to the development, production, and presentation of the student's senior project (to be determined by the student and faculty). Philosophical aspects of dance, aesthetics, and dance as an art form will be the basis of this course. Practical experiences in resume and grant writing, graduate school applications, interviews, and career planning will be covered.

Students will be required to attend certain dance events for this course; some may require a fee.

**Prerequisites & Notes**

Senior Standing, DANC 323, 326, 350, 419, 420. In addition to these prerequisites, dance majors enrolled in Senior

Synthesis must register for a minimum of 2 semester hours of dance technique during the semester in which they take Senior Synthesis.

Credits: 3

### **DANC 426 - Modern Dance Technique: Level V**

This fifth level course is for the student who can demonstrate total integration of technique and performance, including sensitivity to aesthetic and theoretical concepts. Students will focus on the following: a continual refinement and advancement in the level and knowledge of technique, quality of performance and aesthetic concepts; a clear understanding of dance as a profession and demonstrated professionalism and maturity. Course may be repeated for a maximum of 6 credits. Course content will vary each semester. Students will be required to attend certain dance events for this course; some may require a fee.

#### **Prerequisites & Notes**

Junior or senior level dance majors or minors.

Credits: 2

### **DANC 428 - Modern Dance Technique: Level VI**

This sixth level modern dance course is for the student who can execute technique and performance at an advanced level and knows, understands, and can embody complex dance theory and concepts. This course is for the dancer who is at the pre-professional level. Course may be repeated for a maximum of 6 credits. Course content will vary each semester. Students will be required to attend certain dance events for this course; some may require a fee.

#### **Prerequisites & Notes**

Junior or Senior level dance majors or minors; and permission of instructor.

Credits: 2

### **DANC 450 - Dance Internship**

Supervised placement and research in an appropriate agency. For further information, contact the Department of Dance.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-9

### **DANC 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Students will be required to attend certain dance events for this course; some may require a fee.

Credits: 1-3

### **DANC 498 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Students will be required to attend certain dance events for this course; some may require a fee.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 1-3

### **DANC 499 - Dance Rehearsal & Production**

This course provides dance majors and minors the opportunity to receive credit for the numerous hours spent in rehearsals and performances. Students will select specific activities and then develop a contract for completion of responsibilities and evaluation. Tasks may include choreographer, rehearsal assistant, rehearsal and performance as a dancer, publicity, or as a member of the technical support staff during performance (stage manager, running crew, usher, lighting). This course requires an audition and/or permission of the faculty member of record.

Credits: 1

### **ECON 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ECON 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ECON 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ECON 201 - Principles of Macroeconomics**

Definition of economics; concepts and institutions; demand, supply and the price system; national income; employment and fiscal policy; monetary policy; economic stability and growth.

Credits: 3

### **ECON 202 - Principles of Microeconomics**

Economics of the firm; resource allocation; price and output determination; market structure; current economic problems; international economics.

Credits: 3

### **ECON 211 - Real Estate Finance**

The study of nature and scope of real estate, factors affecting demand and supply, property rights, title, deeds and title closing, sources of financing, real estate valuation, taxes, leveraged buy-outs, and real estate investment decision.

Credits: 3

### **ECON 219 - Business Statistics**

Probability and statistics in a business environment encompassing descriptive statistics, probability theory, hypothesis testing, linear regression and correlation. Prerequisites: Algebraic proficiency and microcomputer proficiency. Cross-linked as MGMT 219.

Credits: 3

### **ECON 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ECON 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ECON 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ECON 301 - Macroeconomic Analysis**

Determination of national income and employment. National income accounts as measures of aggregate economic behavior. Analysis of income stability, unemployment, inflation and growth.

**Prerequisites & Notes**

Econ 201, 202

Credits: 3

**ECON 302 - Microeconomic Analysis**

Intermediate price theory including theories of demand, supply, production, resource allocation, market structure, general equilibrium and risk analysis.

**Prerequisites & Notes**

ECON 201, 202

Credits: 3

**ECON 304 - Money and Banking**

Emphasis is upon monetary policy, how it is implemented, the theories on which it is based, and the implication of this policy on our economy.

**Prerequisites & Notes**

ECON 201

Credits: 3

**ECON 312 - Critical Choices in Health Care Policy**

This course analyzes the health care sector. It presents reasons for the growth in health care expenses, assesses how and why they are likely to grow, and details policy options that confront health care administrators, consumers, employers, and government officials.

**Prerequisites & Notes**

ECON 202

Credits: 3

**ECON 315 - Economics of Sustainable Development**

Economic causes and effects of pollution are discussed along with the issue of sustainable economic development. Government policy with respect to the environment and renewable energy will be surveyed. The framework connection between sustainability and the core functions of business for profit will be presented.

**Prerequisites & Notes**

ECON 202

Credits: 3

**ECON 318 - Intermediate Statistical Analysis**

Statistical analysis encompassing multiple regression and correlation, ANOVA (simple and multivariate), goodness of fit, statistical decision analysis, and advanced forecasting techniques.

**Prerequisites & Notes**

ECON 219 or MGMT 219 or permission of the instructor

Credits: 3

**ECON 326 - International Economics**

Alternative exchange rate systems, commercial trade policies, balance of payments, adjustment mechanisms and the role of international financial organizations.

**Prerequisites & Notes**

ECON 201, 202

Credits: 3

**ECON 360 - Labor Economics**

An investigation of labor markets and the effect of institutional forces on employment, wage determination, stability, and the availability of labor.

**Prerequisites & Notes**

ECON 202

Credits: 3

**ECON 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**ECON 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**ECON 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**ECON 450 - Internship**

Supervised placement and research in selected public and private agencies at appropriate institutions.

**Prerequisites & Notes**

Application and permission of the instructor.

Credits: Up to 12

**ECON 490 - Independent Study**

In-depth reading and/or research in an area of particular interest to the student, with the guidance of a faculty member. Prerequisites: 12 hours of major courses, application, and permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

**ECON 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**ECON 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**EGEO 055 - Living in America**

This course is not for native speakers of English. This course exposes students to a combination of American history and culture. Students will explore a variety of cultural topics and historical events. A multimedia approach will be used to develop cultural awareness. The class will encourage students to engage in open communication concerning their understandings and assumptions about life in the U.S. Students will participate in group projects in which they present cultural and historical backgrounds about important U.S. events or practices. Students will also explore the implication of U.S. history and culture for university life.

Credits: 0

**EGEO 100 - Environmental Geology**

The course examines problems of mineral, energy and water resources, waste disposal, soils and health, geologic hazards, and land use. Resources are the common property of all people. Sustainable use of resources is poised by equitable distribution of cost and benefits among diverse peoples.

Credits: 3

## **EGEO 101 - Physical Geology**

Emphasis is placed upon those processes acting to create earth materials, landforms, and structures in and on the earth.

Credits: 3

## **EGEO 103 - Concepts of Evolution and the Fossil Record**

An introduction to the fossil record and evolution of life through earth history, including the nature of science, marine and land dwelling organisms and basic theories of evolution and extinction of organisms. Students registering for 303 will be required to do additional work and take more comprehensive exams than the students registered in 103. Course cross-listed as EGEO303.

### **Prerequisites & Notes**

Concurrent registration in EGEO 304 is required for EGEO 303

Credits: 3

## **EGEO 110 - Environmental Geology Lab**

Complement to EGEO 100; laboratory study of geologic hazards and geologic resources with a focus on local environmental issues. Course may require a weekend field trip.

### **Prerequisites & Notes**

EGEO 100 must be taken prior to or concurrently

Credits: 1

## **EGEO 111 - Physical Geology Lab**

Complement to EGEO 101; laboratory studies of minerals, rocks and maps illustrate the concepts of EGEO 101.

### **Prerequisites & Notes**

EGEO 101 must be taken prior to or concurrently

Credits: 1

## **EGEO 121 - Meteorology**

Introduction to principles controlling weather and their effect on people and the environment. Includes lab.

Credits: 4

## **EGEO 131 - Oceanography**

Introduction to the physical, chemical and biological aspects of the marine environment.

Credits: 3

## **EGEO 190 - Experimental**



A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

### **EGEO 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **EGEO 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **EGEO 201 - Earth Materials and Processes**

Overview of the composition and structure of Earth. Introduction to fundamental physical and chemical Earth processes. Identification of rocks and minerals based on observation and study of physical properties. Includes lab.

#### **Prerequisites & Notes**

Any 100-level course in EGEO

Credits: 3

### **EGEO 202 - Earth History**

The evolutionary history of the earth and its life. Two Saturday field trips required.

#### **Prerequisites & Notes**

EGEO 201

Credits: 3

### **EGEO 203 - Quantitative Methods**

Review of mathematical techniques and principles. Training in the application of quantitative methods to the understanding and analysis of geological and environmental problems. Students will apply a variety of mathematical techniques to a range of geological and environmental problems. Emphasis will be placed on practical applications of quantitative methodology and the development and use of spreadsheets to manage, analyze, and present data sets.

#### **Prerequisites & Notes**

EGEO 202, MATH 125

Credits: 3

### **EGEO 212 - Earth History Lab**

Complement to EGEO 102; introduction to fossils, interpretation of geologic maps, and principles used in historical geology.

**Prerequisites & Notes**

Concurrent registration in EGEO 202

Credits: 1

**EGEO 221 - Weather and Climate Forecasting**

An analysis and use of local and regional computer-collected surface and upper air weather data to forecast weather. A study of past records of climate as clues to future changes. Includes lab.

**Prerequisites & Notes**

EGEO 121

Credits: 3

**EGEO 231 - Aerial Photography Interpretation**

Introduction to photogrammetry, remote sensing, and interpretation of geologic and cultural imagery.

**Prerequisites & Notes**

EGEO 101 or 201 or permission of the instructor

Credits: 3

**EGEO 242 - Glacial Geology**

A study of erosional and depositional landforms left by glaciers and their meltwaters. Glacial landforms and soils are examined on maps, air photos and in the field.

**Prerequisites & Notes**

EGEO 111

Credits: 3

**EGEO 251 - Aviation Meteorology**

This course is a study of weather conditions commonly encountered in aviation. The subject is treated from the viewpoint of the forecaster and the pilot. Includes lab.

**Prerequisites & Notes**

EGEO 121

Credits: 3

**EGEO 271 - Geotechniques: Lab**

Training in laboratory techniques and instruments for geological, geophysical and environmental surveys.

Credits: 2

### **EGEO 272 - Geotechniques: Geologic Reports**

Training in the use of library facilities and bibliographies, literature searches, construction of index cards, writing of abstracts and technical reports, and oral reporting.

#### **Prerequisites & Notes**

EGEO 102 or permission of instructor

Credits: 1

### **EGEO 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **EGEO 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **EGEO 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **EGEO 303 - Concepts of Evolution and the Fossil Record**

An introduction to the fossil record and evolution of life through earth history, including the nature of science, marine and land dwelling organisms and basic theories of evolution and extinction of organisms. Students registering for 303 will be required to do additional work and take more comprehensive exams than the students registered in 103. Course cross-listed as EGEO103.

#### **Prerequisites & Notes**

Concurrent registration in EGEO 304 is required for EGEO 303

Credits: 3

### **EGEO 304 - Paleontology Laboratory**

Laboratory examination of invertebrate fossils, and selected chordates (graptolites and conodonts), including morphology, taxonomy, identification, laboratory preparations and biostratigraphy. One weekend field trip is required.

#### **Prerequisites & Notes**

EGEO 112 and 271 or permission of the instructor; co-requisite: EGEO 303

Credits: 1

### **EGEO 323 - Planetary Geology**

Systematic study of geological processes that have operated on the planets, natural satellites, and minor bodies in the Solar System. Course will cover solar system formation and evolution, planetary interiors, surficial processes, the structure and history of individual planetary bodies. Quantitative techniques will be used to examine data from current and historic exploration missions.

#### **Prerequisites & Notes**

EGEO 102, 281

Credits: 3

### **EGEO 327 - Structural Geology**

Origin and description of primary and secondary structures of sedimentary, igneous, and metamorphic rocks.

#### **Prerequisites & Notes**

EGEO 112, 272

Credits: 3

### **EGEO 328 - Plate Tectonics**

Plate tectonics is the study of the motion of the lithosphere and deformation of the earth's crust on a regional scale. The course will evaluate the plate tectonic paradigm in terms of its historical evolution and modern application to understanding earth processes. The course examines a broad range of tectonic phenomena and considers the specific geological and geophysical processes involved. Topics covered include the uplift, deformation and metamorphism of mountain belts, the formation of ocean basins, the subsidence of sedimentary basins, the collision of continents and volcanic arcs, earthquake seismology of plate boundaries, magmatism related to plate processes, and tectonics and landscapes.

#### **Prerequisites & Notes**

EGEO 102, 112

Credits: 3

### **EGEO 340 - Air Pollution Meteorology**

A study of meteorological parameters of air pollution concentration, dispersion, and removal. Includes air pollution forecasting and modeling.

#### **Prerequisites & Notes**

EGEO 121

Credits: 3

## **EGEO 341 - Geomorphology**

A study of landforms, their origin and relation to geologic processes, structure, and climate.

### **Prerequisites & Notes**

EGEO 201 or GES 150

Credits: 3

## **EGEO 351 - Mineralogy**

Systematic crystallography, crystal chemistry, physics, genesis, occurrence, and identification of minerals.

### **Prerequisites & Notes**

EGEO 111, 271, 272, CHEM 108, 112 and permission of the instructor

Credits: 4

## **EGEO 352 - Petrology**

Classification, occurrence, and genesis of igneous, sedimentary and metamorphic rocks. Identification using hand specimens and polarizing microscope (thin sections).

### **Prerequisites & Notes**

EGEO 351

Credits: 4

## **EGEO 358 - Introduction to Geophysics**

An introduction to geophysics and geophysical methods and their use in the study of Earth's interior. Emphasis will be placed on illuminating subsurface geological features and applications in fields such as groundwater studies, development of energy resources and environmental studies.

### **Prerequisites & Notes**

Grade of C or higher in PHYS 211, MATH 225, and EGEO 201

Credits: 3

## **EGEO 360 - Introduction to Hydrology**

A study of the occurrence and movement of water and human's effect on this basic resource.

### **Prerequisites & Notes**

EGEO 101 and 201 or permission of the instructor

Credits: 3

## **EGEO 362 - Stratigraphy**

Principles of stratigraphy, stratigraphic mapping, and graphic techniques used in stratigraphic interpretation. Two Saturday field trips may be required.

**Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted

Credits: 3

**EGEO 368 - Women in Science**

This course will explore the issues of women in science. Specifically it will address the issues of gender in relation to the theory and practice of science and technology. The course content will use case studies to explore women that have made significant contributions to science despite barriers limiting their access to education and professional organizations. The content will cover topics including how the development of educational systems and professions affected women over the centuries, how scientific approaches have evolved, and how women meet challenges in today's scientific community. The case studies will provide students with the opportunity to analyze and synthesize the information presented into an understanding on the evolution of scientific thought and women's roles in science.

**Prerequisites & Notes**

students must complete 45 credits hours prior to enrolling in this class

Credits: 3

**EGEO 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**EGEO 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**EGEO 398 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**EGEO 399 - Field Camp**

Field Camp is final requirement and is usually conducted at a field study location.

Credits: 4

**EGEO 448 - X-ray Spectrometry**

Concepts of x-ray production and interaction with crystalline materials. Application of x-ray diffraction methods for identification of minerals, and x-ray fluorescence techniques for chemical analysis. One lecture and one two-hour laboratory per week.

**Prerequisites & Notes**

CHEM 107 and EGEO 201

Credits: 3

**EGEO 450 - Internship**

Supervised placement and research in selected public and private agencies.

**Prerequisites & Notes**

Permission of chairperson

Credits: Up to 12

**EGEO 451 - Geochemistry**

Basic thermodynamics applied to the geochemistry of natural systems. The course will focus on low temperature inorganic reactions that are important for the environmental fate and transport of contaminants in the environment. The course will require the use of computer spreadsheets and models to solve geochemical problems covered in lecture. Three hours of lecture and one hour of computer lab.

**Prerequisites & Notes**

CHEM 108, 112 and EGEO 201 or equivalent

Credits: 4

**EGEO 453 - Geotechniques: Geochemistry**

Laboratory and field experiments to study the geochemistry of local environmental systems. Field sampling, in-field and laboratory analysis, and construction of experimental systems will be conducted. Field trips for sample collection will occur weekly.

**Prerequisites & Notes**

EGEO 451 or permission of the instructor

Credits: 1

**EGEO 460 - Hydrogeology**

A study of the quantitative and qualitative interrelationships of geologic materials and processes with ground water.

**Prerequisites & Notes**

EGEO 360 or permission of the instructor

Credits: 3

**EGEO 469 - Field Investigations in the Geosciences**

This course will provide students with the opportunity to practice the nature of fieldwork by observing, interpreting, collecting data and analyzing physical and human landscapes, and the natural, cultural and economic forces that are shaping them.

Course is cross-listed as GES 469

Credits: 1-3

### **EGEO 476 - Geotechniques: Geophysics**

Lab and field techniques.

#### **Prerequisites & Notes**

EGE 460 and permission of the instructor

Credits: 1

### **EGEO 481 - Geologic Map Interpretation**

A seminar for advanced undergraduates in whom students and staff participate in map interpretation. One two-hour lab per week.

#### **Prerequisites & Notes**

Senior standing or permission of the instructor

Credits: 1

### **EGEO 482 - Senior Seminar**

A seminar for advanced undergraduates in which students and staff participate in discussions concerning classical and current geological problems.

#### **Prerequisites & Notes**

Senior standing or permission of the instructor

Credits: 1

### **EGEO 490 - Independent Study**

Independent work on a topic in the earth sciences selected by the student with permission and advice of the instructor. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

### **EGEO 495 - Workshop**



A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **EGEO 498 - Selected Topics**

The in-depth examination of a specific topic. The topic selected and its treatment depend on the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

### **EGEO 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **EGEO 595 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **EGEO 598 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **ELEC 100 - Early Childhood Education Theory & Practice**

This course is designed to introduce students to early childhood education with emphasis on historical and contemporary perspectives, theories, practice, and current trends and developments. Early childhood environments for children from birth through nine years of age will be studied and various curricula materials will be reviewed. Examination of the student's personal qualities in relationship to expectations of the field is addressed throughout the course (COE assessment of dispositions). Students will be exposed to children within a variety of early childhood settings via videotaped observations of children and classrooms.

#### **Prerequisites & Notes**

None

Credits: 3

### **ELEC 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

### **ELEC 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ELEC 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ELEC 200 - Child Development Typical**

This course will provide a critical overview of key aspects of child development (physical, psychosocial, and cognitive) from theories and research that span conception to the early school years (birth to age 9). Important contexts that shape children’s development will also be a major focus of this course, such as family, school, community, socioeconomic, and policy influences.

#### **Prerequisites & Notes**

None

Credits: 3

### **ELEC 214 - Developmental Formal & Informal Assessment**

A study of assessment for children from birth to Grade 4. Both formal and informal instruments will be discussed with the emphasis on tools that can be used by teachers of young children to inform developmentally appropriate instruction and practices on a daily basis. Considerations in choosing, administering, and reporting results of assessments will also be addressed.

#### **Prerequisites & Notes**

Prerequisites: ELEC 100 AND ELEC 200

Credits: 3

### **ELEC 230 - Field-Based Child Development Typical**

Candidates will connect theory to practice in this course. Both typical and atypical child development will be studied in-depth through observations in a variety of education and education-related settings for children birth through grade four.

#### **Prerequisites & Notes**

Prerequisites: ELEC100 and ELEC200

Co-Requisites: ELEC281 and ELEC237

Credits: 3

### **ELEC 237 - ELL Strategies and Practice for Early Childhood Education**

This course will focus on the development of competencies and skills needed to effectively teach students whose first language is not English so that teacher candidates can accommodate and adapt instruction and assessments for Pre-K through Grade 4 English Language Learners ( ELLs). In addition, this course is designed to provide pre-service early childhood educators with the scientific study of psycholinguistic phenomena in the study of language acquisition, to understand development of typical and atypical oral language in young children from birth to age 9, and to understand cultural and familial influences on language and literacy.

#### **Prerequisites & Notes**

Prerequisites: ELEC100 and ELEC200

Co-Requisites: ELEC230 and ELEC281

Credits: 3

### **ELEC 238 - Literacy Practices for the Emergent Learner(PreK-grade 1)**

Through a blend of theory and practice, this course explores research-based instruction for the emergent literacy learner (PreK-grade 1), including the relationship between language development and literacy, instructional activities to help children become competent users of oral language, reading and writing processes, creation of a literate environment, and cultural and familial influences on language and literacy.

#### **Prerequisites & Notes**

Prerequisites: ELEC 100 AND ELEC 200

Credits: 3

### **ELEC 281 - Family and Community Diversity and Partnerships**

This course is designed to acquaint the teacher candidate in early childhood education to the theories, practices, skills, and knowledge of home, school, and community relationships, building towards home and school partnerships. The focus of this course is developing a thorough understanding of diverse contexts and ethnicities that helps educators of young children strengthen the bonds between home, school and community.

#### **Prerequisites & Notes**

Prerequisites: ELEC100 and ELEC200

Co-requisite: ELEC230 and ELEC237

Credits: 3

### **ELEC 285 - Integrating Creative Expression through the Arts**

This course will identify basic elements, principals, related concepts, and vocabulary of the creative and performing arts. The creative arts exist as vehicles through which we can communicate the very essence of expressive language. Students will be introduced to various media, lesson planning, and ways of integrating the arts into planning academic and multicultural curricula for PreK-4 classrooms. This course will serve as a foundation for integrating arts across the curriculum.

**Prerequisites & Notes**

ELEC100 and ELEC200

Credits: 3

**ELEC 288 - Children's Literature**

This course introduces candidates to the values of children's literature and the wide range of genre available for enhancing the development and learning of children. Course content includes identifying and selecting outstanding literature for literacy content, children's needs and interests, multicultural perspectives, and curriculum enrichment. A field component includes the opportunity for candidates to implement strategies for the creative presentation of literature and the stimulation of creative responses by school-aged children.

**Prerequisites & Notes**

Prerequisite: Sophomore Standing; Corequisite: ELEC 281.

Credits: 3

**ELEC 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**ELEC 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**ELEC 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**ELEC 301 - Math/Science Teaching Lab**

Provides students with a myriad of opportunities to: identify and develop basic teaching skills, design and implement math and science lessons for peers and school-aged children, and reflect/analyze lessons in light of science and math education research findings. Throughout the course, candidates will have the opportunity to actually experience classroom teaching when possible.

**Prerequisites & Notes**

Admission to the College of Education; ELEC 281, 288; Co-requisites ELEC 342, 362.

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 1

### **ELEC 306 - Early Childhood Education I**

Research, history, philosophy, current trends and observations with emphasis on the nature and nurture of the young child from birth through third grade.

#### **Prerequisites & Notes**

Minimum overall GPA, professional conduct standards, and major GPA prerequisites may apply; details are available in the department office or from the student's advisor.

Credits: 3

### **ELEC 308 - Folk Literature and Storytelling**

Combines a study of traditional literature with practice in the best methods of presenting it orally. Oral presentations include a preschool story hour, folk tale, and myth or literary fairy tale. The course also emphasizes the importance of puppetry in education and recreation.

#### **Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 311 - Mathematics & Literacy Teaching Lab Pre K - 4**

This course provides teacher education candidates with an opportunity to observe, assist, and teach mathematics and literacy lessons in a pre-school or early childhood grade level setting. Through this lab, candidates identify and develop basic teaching skills, design and implement mathematics and literacy lessons for PK-Grade 4 children, and reflect and analyze on lessons taught, based on assessment data, research and philosophies examined concurrently in the mathematics and literacy methods courses. Candidates will also develop an appreciation for the many tasks teachers perform daily.

#### **Prerequisites & Notes**

Prerequisites: ELEC314 and ELEC337; Co-Requisites: ELEC340 and ELEC330

Credits: 1

### **ELEC 317 - Child and Family Development in Early Childhood**

This course is a theoretical, in-depth examination of physical, intellectual, social-emotional, language and family development from birth through age 8, which builds upon previous Human Development courses. Development is viewed as occurring within a family and a culture, not in isolation. Emphasis is placed upon the connections between the theoretical and the practical.

#### **Prerequisites & Notes**

CDEV 248 and ELEC 306.

NOTE: Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 320 - Elementary Field Experience**

Candidates enroll as part of the Professional Block in Elementary Education. This course involves an in-depth teaching experience in an elementary classroom in which opportunities are provided for the application of content knowledge, pedagogical skills, and the assessment of children's learning. Grading P/NC/Fail.

#### **Prerequisites & Notes**

Successful completion of block 2 in elementary education; Co-requisites: ELEC 332. NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 324 - Methods for Teaching English as a Second Language and Bilingual Education**

A course designed to acquaint the prospective teacher at any level with the methodology used to teach English to native speakers of other languages and to acquaint students with the specialized procedures used when teaching in bilingual classrooms (any two languages) on any level.

#### **Prerequisites & Notes**

One year of college language study or placement in 201. NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 327 - Social/Cultural Studies in Early Childhood Education**

This course is a multi-dimensional methods course which integrates background knowledge from the social sciences, natural sciences, and the humanities and fine arts. It focuses on an experiential approach to facilitating young children's growth and development, with an emphasis on human relationships. A multi-cultural perspective is fostered.

#### **Prerequisites & Notes**

ELEC 306 and 2.5 GPA. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 328 - Curriculum and Assessment in ESL Education**

This course prepares students seeking Pennsylvania certification in English as a second language (K-12) with key concepts related to curriculum development and assessment for students learning English as a second language. Topics include meeting ESL curriculum standards, novel and accurate assessment procedures, culturally biased testing,

assessment suitability criteria, and culturally appropriate testing situations. The course investigates assessment within the context of ESL curriculum design, implementation, and program evaluation. Finally, students will come to terms with the process of evaluating language minority students in relation to diagnosis, placement, formal and informal assessment, exiting, and monitoring of student progress.

#### **Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 330 - Literacy Practices for the Developing Learner, Grades 2 - 4**

Candidates will acquire a thorough understanding of literacy development (ages 5 - 9) as revealed in learning and motivation theories. Candidates will be prepared to use a variety of instructional strategies and materials selectively, appropriately, and flexibly. Candidates will be prepared to use multiple strategies for developing students' word/concept knowledge and word analysis skills in addition to understanding how word meaning and fluency support comprehension. Candidates will be able to teach multiple comprehension strategies that support readers in constructing meaning from text, both literary and informational, and in monitoring their comprehension. Candidates will gain strategies for infusing writing and the conventions of writing into literacy learning. Candidates will acquire appropriate assessment techniques to support responsive instructional decision making and reflection. Competencies and skills needed to effectively support students whose first language is not English will be central to this course.

#### **Prerequisites & Notes**

Prerequisites: ELEC337 and ELEC 314

Co-requisites: ELEC340 and ELEC311

Credits: 3

### **ELEC 332 - The Teaching of Elementary Reading**

Candidates will be introduced, through theory and practice, to a variety of strategies for teaching elementary reading. Candidates will become aware of ways to assess reading progress and ways to support children as they develop as readers. Candidates will also become familiar with materials used in the classroom to support literacy.

#### **Prerequisites & Notes**

ELEC 301, 342, 362; Co-requisites: ELEC 320. NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 340 - Mathematics Methods and Strategies for PRE K - 4 Teachers**

This course is designed to provide pre-service teachers with the pedagogy and materials necessary for teaching early childhood mathematics. This course addresses development and instruction in play-based and problem-based mathematics in pre-K to grade 4 settings. Included are methods, materials, and research findings related to teaching of mathematics. Questions that provide the structure for this course are: What is the nature of mathematics (what is mathematics and what does it mean to do mathematics)? How do children learn mathematics? How do we as

teachers help children learn mathematics?

**Prerequisites & Notes**

Prerequisites: MATH210, MATH310, ELEC237 AND ELEC230

Co-requisites: ELEC330 AND ELEC311

Credits: 3

**ELEC 342 - The Teaching of Elementary Mathematics**

The various processes and operations needed to effectively teach mathematics in the elementary school are carefully analyzed. Candidates recognize and can address the mathematical concepts and the potential misconceptions and misunderstandings of these concepts by school-aged children.

**Prerequisites & Notes**

MATH 210 and 310 or equivalent. Co-requisites: ELEC 301 and 362. Co- or pre-requisite SEFE 270. NOTE:

Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education handbook.

Credits: 3

**ELEC 347 - Modern Primary Programs**

A survey of philosophy, techniques and methodology used in educating children through continuous progress in an ungraded primary school.

**Prerequisites & Notes**

ELEC 306 and 2.5 GPA.

Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**ELEC 348 - Leadership, Advocacy & Program Development**

This course will focus on leadership, advocacy and program development for teacher candidates preparing to work with children Pre-K to Grade 4. Focus will be on the design, development, and evaluation of early childhood programs, including theory, paradigms and models, policy in the program development process, and the use of technology in program development. In addition, this course will include theory, research and practice in early childhood as a foundation for leadership in the field and advocacy on behalf of young children, families, communities, and the early childhood profession. An examination of current issues in the field and strategies for articulating positions and for working toward change will also be addressed.

**Prerequisites & Notes**

ADMISSION TO TEACHER CANDIDACY AND JUNIOR STANDING

Credits: 3

**ELEC 352 - The Teaching of Language Arts**



Candidates will be introduced, through theory and practice, to a variety of strategies for teaching elementary language arts. They will become familiar with the six components of language arts: reading, writing, speaking, listening, visually representing, and viewing. Candidates will learn strategies for teaching these components and integrating them into the classroom curriculum. Candidates will also become familiar with assessment tools for language arts.

**Prerequisites & Notes**

ELEC 301, 342, 362.

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**ELEC 362 - The Teaching of Elementary Science**

Candidates will learn numerous strategies which engage students in the science inquiry process by connecting scientific understanding and contemporary teaching and assessment practices. Locating and adapting appropriate activity-based science lessons are important components of this course.

**Prerequisites & Notes**

Two science courses, one with related laboratory; Co-requisites: ELEC 301, 342. NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards.

Credits: 3

**ELEC 372 - The Teaching of Elementary Social Studies**

Candidates in this course will explore the social studies curriculum, including its organization; analyze methods of teaching, objectives, and materials; and discuss evaluation/assessment techniques. Study focuses on best practice classroom applications and the relationship between instruction and student learning outcome. Field experiences included.

**Prerequisites & Notes**

ELEC 301, 342, 362.

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**ELEC 382 - Literacy Assessment**

A study of literacy assessment techniques designed to support the elementary teacher in designing a supportive literacy environment and effective literacy instruction for all students.

**Prerequisites & Notes**

ELEC 332. The Teaching of Elementary Reading. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework: Minimum over all GPA, professional dispositions, and major GPA prerequisites also apply. These are specified in the Teacher Education Policy Manual.

Credits: 3

### **ELEC 385 - Creativity**

An interdisciplinary approach to child-centered teaching through creative instructional materials, drama, music, and a variety of art media.

#### **Prerequisites & Notes**

CDEV 342.

Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 390 - Experimental Course**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

#### **Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education

Credits: 0

### **ELEC 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ELEC 397 - Early Childhood Education II**

Curriculum, materials, audio-visual and other aids and their implementation in various early childhood learning situations with full articulation of such programs with the primary grades.

#### **Prerequisites & Notes**

ELEC 306.

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ELEC 407 - Math and Science in Early Childhood Learning**

Students will apply theories of child development to the implementation of math and science in the early childhood curriculum. Using a constructivist approach, students will plan and implement activities designed to enhance cognitive development in these areas. Students will become aware of available materials for teaching and assessment.

#### **Prerequisites & Notes**

ELEC 327, 337.

Minimum overall GPA, professional conduct standards, and major GPA prerequisites apply. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 410 - Culture and Politics of American Education**

Public education (Pre-K-12) in the United States is one of the most important civic debates in our society. Everyone has attended school and everyone seems to have an opinion about what counts as a quality education. The problem of how to provide an education to the youth of this country requires thoughtful decisions-informed by scholarly research, multiple viewpoints and ethical perspectives. This course will provide students the opportunity to explore the cultural, political and legal issues facing public education today.

#### **Prerequisites & Notes**

First offered Summer 2014

Credits: 3

### **ELEC 415 - Early Science and Math**

Students will apply theories of child development to the implementation of math and science in the early childhood curriculum. Using a constructivist approach, students will plan and implement activities designed to enhance cognitive development in these areas. Students will become aware of available materials for teaching and assessment.

Credits: 4

### **ELEC 420 - Early Childhood Field Experience**

Candidates enroll as part of the Professional Block in Early childhood Education. This course involves an in-depth teaching experience in an early childhood setting in which opportunities are provided for the application of content knowledge, pedagogical skills, and the assessment of children's learning.

#### **Prerequisites & Notes**

Prerequisites: ELEC 330, ELEC 340, ELEC 311

Co-requisites: ELEC 440, ELEC 460, ELEC 470, and SPED 430

Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 427 - Early Intervention**

This course will examine atypical development from birth through age eight. Legal rights of children and families will be explored. Student will study the interventions necessary to assist the young child and their families adjust and adapt to development difficulties. A field component is included.

#### **Prerequisites & Notes**

ELEC 327, 337 and 2.5 GPA.

Minimum overall GPA, professional conduct standards, and major GPA prerequisites apply. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 437 - Assessment in Early Childhood**

This course is an overview of the role of assessment at the preschool and primary grade levels as integral to curriculum and instructional decision-making. Content will focus on informal assessment measures recommended for early childhood classroom teachers. A field experience gives students the opportunity to apply a variety of assessment measures with young children.

#### **Prerequisites & Notes**

ELEC 427, 447 and 2.5 GPA.

Minimum overall GPA, professional conduct standards, and major GPA prerequisites apply. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **ELEC 440 - ECE Curriculum Integration: Theory into Practice**

Development and implementation of an integrated program of all content areas across the learning standards Pre-K through Grade 4, through the integration of play-based, experience-based, and project-based teaching. Selection and development of materials and resources based on assessment data that meet the needs of culturally and linguistically diverse learners is stressed.

#### **Prerequisites & Notes**

Prerequisites: ELEC311, ELEC330, ELEC340

Co-requisites: ELEC470, ELEC460, ELEC420, and SPED 430

Credits: 3

### **ELEC 445 - Administration of Child Care Programs**

Students are introduced in a practical manner to the procedures required to organize, license, and administer a child care program (including preschool and elementary aged children). This course involves a field experience of 5 hours.

**Prerequisites & Notes**

ELEC 327, 337 and 2.5 GPA.

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**ELEC 450 - Internship: Early Childhood**

This course is a supervised off-campus, full-time work experience in a certified Early Childhood Education program. Students attend seminars and complete additional assignments made by supervisors. Open only to Elementary Education: Early Learning and Development students.

**Prerequisites & Notes**

ELEC 447.

Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 12

**ELEC 455 - Student Teaching: Early Childhood**

Under the guidance of a cooperating teacher and university supervisor, candidates engage in teaching assignments on a full-time basis in specified school districts and/or early childhood agencies and attend scheduled seminars. Student teaching requires a partnership between the university and cooperating school districts and agencies. It is considered the culminating experience and the most beneficial teacher preparation course. It is a transition between pre-service and in-service teaching.

**Prerequisites & Notes**

Must show evidence of taking all of the Praxis II tests PRIOR to Student Teaching

Credits: 12, 6, 3

**ELEC 460 - Instructional Strategies for Science and Technology**

This course is designed to introduce the teaching techniques and strategies used by science educators to make science teaching, meaningful, motivating, and plausible for PK-4 students. In addition, the most common curriculum units and supplements are introduced, explored, and examined for their appropriateness in the early childhood environment and the relationship to the PDE science standards. Emphasis is placed on how to collect and learn about scientific concepts in order to develop the skills necessary to teach coherent centers and/or lessons and choose instructional techniques that will most effectively help children learn. Lastly, confidence in teaching science is established as participants devise, employ, and assess science lessons presented to peers and young children.

**Prerequisites & Notes**

Prerequisites: ELEC311, ELEC330, ELEC340

Co-requisites: ELEC470, ELEC440, ELEC420, and SPED 430

Credits: 3

## **ELEC 470 - Social Studies & Citizenship**

Teacher candidates in this course will explore the social studies curriculum, including its organization; analyze methods of teaching, objectives, and materials; discuss evaluation/assessment techniques and citizenship development for PK-4 learners. Study focuses on best practice classroom applications and the relationship between instruction and student learning outcome.

### **Prerequisites & Notes**

Prerequisites: ELEC311, ELEC330, ELEC340, and SPED 430

Co-requisites: ELEC460, ELEC440 and ELEC420

Credits: 3

## **ELEC 480 - Assessment and Differentiating Literacy**

The purpose of this course is to provide teacher candidates with information and experiences that will enable them to utilize formal and informal methods for assessing children's reading ability and materials for improving decoding, fluency, vocabulary, comprehension and motivation. This course we explore the various roles of assessment in education and will look at a variety of data sets to draw conclusions about how they might impact class- or school-level decision making. This course will also provide teacher candidates with information to differentiate their teaching to meet the needs of all learners.

### **Prerequisites & Notes**

ELEC238 and ELEC330

Credits: 3

## **ELEC 490 - Independent Study**

A program of independent work conducted by a student who has demonstrated academic proficiency, with prior approval of the student's advisor and departmental chairperson. Prerequisite: Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

### **Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 1 to 3

## **ELEC 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **ELEC 498 - Selected Topics**

Experimental courses covering topics supplementary to teaching in the elementary school may be offered on an irregular basis with this course designation.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 1 to 3

### **ENGL 099 - Connecting Reading and Writing**

This course is designed to provide entering students with an introduction to college-level writing, reading, and thinking processes. It is a workshop style course, connecting students to the various academic, social, and cultural contexts that inform their reading, writing, and thinking. Students are placed in the course after receiving an SAT Verbal score of 390 or below, an ACT Writing score of 13 or under, or an SAT Essay Writing Component score of 6 or under (based on scores of two readers). Students meeting one of those criteria may sit for an on-site timed essay during orientation for possible exemption from this course. Credit earned in this course will not count toward the university's 120 credit hour minimum required for graduation. Enrollment is continuous until students earn a "C" or better. Students who excel in this course, with the professor's approval, may be placed directly into College Writing II and receive 3 credit hours towards graduation.

Credits: 3

### **ENGL 101 - Introduction to College Writing**

In this course, students will investigate the purposes, both academic and non-academic, for writing and reading. Students will learn to identify meaning and draw inferences from context cues. They will develop increased writing fluency, clarity, and coherence; a fuller understanding of rhetorical principles, including invention, organization, and audience; improved strategies for revising and editing their prose, emphasizing the standards of edited American English; and an understanding of writing and reading as tools for learning and communication.

Students should take this course before taking 102 by advisement, by their own choice, if any one of the following applies to them: if the SAT Verbal score is 399 or less, if the SAT Writing score is 399 or less, or if the ACT Writing score is 11 or less.

Credits: 3

### **ENGL 102 - College Writing**

Students will develop a full understanding of rhetorical principles, including invention, organization, and audience, along with strategies for revising and editing their prose that emphasize clarity, coherence, support, and the standards of edited American English.

They will learn to develop positions on selected issues and questions and compose strongly supported and reasoned arguments regarding those issues and questions.

Finally, they will learn basic information literacy skills, which will include how to locate, evaluate, and incorporate a variety of sources into their writing. They will use these to conduct independent research and integrate it into a written essay.

Credits: 3

### **ENGL 103 - College Writing II**

In this course, students will learn to read academic and persuasive discourse in an active, critical manner; develop deliberated positions on selected issues and questions; compose strongly supported and reasoned arguments regarding those issues and questions; acquire information literacy skills, learning efficient and productive strategies for research from both print and online sources; and complete documented essays which effectively integrate source materials into a persuasive whole.

#### **Prerequisites & Notes**

ENGL 101

Credits: 3

### **ENGL 150 - Writing to Discover**

An intensive writers' workshop where participants and facilitators work individually and in small groups to fine-tune the craft of their writing. Course may be repeated up to 4 credits.

Credits: 1

### **ENGL 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ENGL 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ENGL 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ENGL 204 - Composition and Rhetoric**

Expository and persuasive writing based on the study and application of rhetorical theory.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102



Credits: 3

### **ENGL 205 - Introduction to Professional Writing**

This course will introduce a variety of documents typically produced by writers in professional workplace. It will build essential skills for communicating with varied audience with whom one may interact in a professional capacity.

Students will work on developing collaborative skills, on rhetorical strategies, on document design, and on refining writing style for clarity, conciseness, and standard usage. The concept of organizational cultures will be introduced, as well as ethical considerations and responsibilities that accompany professional discourse.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

### **ENGL 210 - Interpreting Literature**

Students read, interpret, and write about texts from diverse genres, writers, and cultural perspectives, and learn ways of critical reading that speak to the human condition, including issues of diversity.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 OR ENGL 103

Credits: 3

### **ENGL 214 - Film Analysis**

A survey of contemporary and classic films.

Credits: 3

### **ENGL 217 - Introduction to Shakespeare**

An introduction to Shakespeare's plays and poetry within their literary, historical and cultural contexts.

#### **Prerequisites & Notes**

ENGL 102 OR ENGL 103 AND ENGL 210 or English major status

Credits: 3

### **ENGL 220 - Introduction to Literary and Cultural Studies**

An introduction to the critical essay. Students will read and write critically about literary texts (written and visual), cultural theory, and avenues of inquiry that theoretical approaches open. Students will also learn how to locate and evaluate the resources that literary and cultural studies depend on, and how to use disciplinary-specific methods of presenting and documenting work.

#### **Prerequisites & Notes**

ENGL 101 AND ENGL 103 OR ENGL 102

Credits: 3

### **ENGL 225 - Introduction to Creative Writing**

Introduction to Creative Writing is a foundations course, offering students the opportunity to develop their abilities to write poetry, fiction, and creative nonfiction. Original student work is read and discussed in class and in conferences with the instructor. Reading of classic and contemporary writers is assigned.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

### **ENGL 230 - Introduction to Linguistics and Grammar**

An introduction to the study of language structure, including the study of grammar (consisting of phonology, morphology, syntax and semantics) within psycholinguistic and sociohistorical linguistic approaches.

#### **Prerequisites & Notes**

ENGL 102 and ENGL 210 OR ENGL 220 OR English Major status or Secondary Education/English major status

Credits: 3

### **ENGL 235 - Writing for Non-Print Media**

This course gives students the opportunity to explore the genre of writing for non-print text, such as digital media, blogs, wikis, film, and social networks. Student will examine the use of audience, tone, and purpose in these types of communication and its application in classrooms as well as in cyber communities.

#### **Prerequisites & Notes**

ENGL 102 or 103

Credits: 3

### **ENGL 242 - African-American Literature**

A study of black American literature as it pertains to the American experience.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 AND ENGL 210 or English major status

Credits: 3

### **ENGL 243 - Literature of the Women's Movement**

Women authors from various periods read with a woman's perspective on the world. Prerequisite: ENGL 101 and 210 or English Major status.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 AND ENGL 210 or English Major Status

Credits: 3

### **ENGL 244 - Native American Literature**

A study of Native American Literature as it pertains to the American experience.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 AND ENGL 210 or English major status

Credits: 3

### **ENGL 246 - U.S. Latino / a Literatures**

Study of U.S. Latino literature written in English. Focus will be on how region determines varying components (identity, theme, form, or mood), exemplified in distinctions between immigration, barrio, southwestern, Chicago, and L.A. literatures.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 AND ENGL 210 or English major status

Credits: 3

### **ENGL 248 - Eastern Literature**

Study of such standard works as the Bhagavad-Gita, the writings of Confucius, and the Bible, in addition to other works from India, China, and the countries of the near East.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 AND ENGL 210 or English major status

Credits: 3

### **ENGL 249 - Life/Lit/Service**

Life/Lit/Service will explore selected literary and linguistic concerns-e.g. representations of place, class, ethnicity and/or dialectal variation-through a service learning experience, in this case, an intensive week-long trip/service project at an off-campus location (e.g. San Francisco). This course may be repeated for up to three credits.

#### **Prerequisites & Notes**

Permission of instructor.

Credits: 1

### **ENGL 260 - Elementary College Latin I**

An introduction to the Latin language, concentrating on the study of basic forms, grammar, and introductory readings.

Credits: 3

## **ENGL 261 - Elementary College Latin II**

Further study of the Latin language, concentrating on the study of advanced grammar and introductory readings.

### **Prerequisites & Notes**

English 260 or permission of the instructor

Credits: 0

## **ENGL 263 - World Literature**

Critical analysis of selected works by writers outside the U.S. and Britain.

### **Prerequisites & Notes**

ENGL 101 OR ENGL 102, AND ENGL 210 or English Major Status

Credits: 3

## **ENGL 272 - Business English**

English 272 is a basic overview of essential verbal and writing skills for communicating with various business, corporate, administrative, health services and criminal justice audiences. Student learning will focus on standard business letter and communication genres, standard written English skills, marketing and business presentation skills and strategies, telephone and email etiquette, and typical business reports such as business plans, case studies, and marketing documents.

### **Prerequisites & Notes**

ENGL 102 OR ENGL 103

Credits: 3

## **ENGL 288 - Classic Theatre Tour**

The study of classic drama, climaxed by a trip to the Stratford Shakespeare Festival in Ontario, Canada; the Shaw Festival Theater; or other appropriate theaters in Toronto. Offered in the summer. Travel fee required.

### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 AND ENGL 210 or English major status

Credits: 3

## **ENGL 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

## **ENGL 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **ENGL 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **ENGL 305 - Practicum: Teaching Writing**

Experience in developing, responding to, evaluating, and grading student writing tasks, and in tutoring student writers, combined with an introduction to theory used in the teaching of writing. Required for certification to teach English in the secondary schools.

### **Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

## **ENGL 306 - Technical and Scientific Writing**

Offers practice in integrating research skills and document design with understanding of style, technical concepts, genre, and audience. Features writing of technical and scientific reports, articles, and other documents for practical contexts. Technical and scientific writing occurs in many academic disciplines and professional fields; employs electronic media and design; includes production and presentation of written work; and is both individually and collaboratively written.

### **Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

## **ENGL 307 - Writing for Electronic Media and Film**

This course develops writing skills that enable students to write basic continuity for public service announcements, slide-tape instructional programs, local level video tape productions, and other applications as they relate to electronic media and film.

### **Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

## **ENGL 308 - Advertising Copywriting**

Work in the writing and production of advertising copy.

**Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

**ENGL 309 - Advanced Professional Writing**

Advanced level work in the rhetorical principles and practices of grant and proposal writing; report writing; policy writing; new media writing, including marketing communication; document and information design; and portfolio preparation.

**Prerequisites & Notes**

ENGL 205

Credits: 3

**ENGL 311 - Chaucer and Medieval Culture**

Works by Chaucer and his contemporaries studied within the context of later medieval culture.

**Prerequisites & Notes**

ENGL 102 OR ENGL 103 AND ENGL 210 or English major status

Credits: 3

**ENGL 314 - European Film**

The critical analysis of films from European Union countries with particular emphasis on countries with high annual film productivity such as France, United Kingdom, Italy, Spain, and Germany. Emphasis in on contemporary films with optional contrast to historical trend-setting films.

**Prerequisites & Notes**

ENGL 210 or English major status

Credits: 3

**ENGL 315 - The Cinematic Review: Historical and Critical Writing**

A survey of significant motion pictures with emphasis upon the techniques of film making and film reviewing.

**Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

**ENGL 316 - Asian Film**

The critical analysis of films from India and East Asia. Emphasis is on contemporary films from China and Japan. Also meets requirements for the Asian Studies Minor.

**Prerequisites & Notes**

ENGL 210 or English major

Credits: 3

### **ENGL 317 - British Literature I**

A comprehensive study of authors and literary works from the Old English period through Milton.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 OR ENGL 103

Credits: 3

### **ENGL 318 - British Literature II**

A comprehensive survey of authors and literary works from the Civil War and Restoration through the early 20th century.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 OR ENGL 103

Credits: 3

### **ENGL 319 - American Literature I**

A comprehensive survey of American literature from Puritan times through Melville.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 OR ENGL 103 AND ENGL 210 or English major status

Credits: 3

### **ENGL 320 - American Literature II**

A comprehensive survey of American literature from Whitman through modern times.

#### **Prerequisites & Notes**

ENGL 101 OR ENGL 102 OR ENGL 103 AND ENGL 210 or English major status

Credits: 3

### **ENGL 328 - Young Adult Literature**

Surveys literature for adolescents and young people and is intended to cultivate book appreciation, improve book knowledge, and provide curriculum enrichment in intermediate, junior and senior high school libraries. Includes a study of selection aids, book talks and a study of current non-print materials.

Credits: 3

### **ENGL 330 - Literary Publications & Design**

Literary Printing and Publication provides a deeper understanding of print and production practices for students with critical and creative writing backgrounds. Students will study theories and models - both historical and contemporary - for print design, layout, typography and production environment, while applying such theory to the practice of publishing literary artifacts.

**Prerequisites & Notes**

ENGL102 OR 103 AND ENGL 210 OR ENGLISH MAJOR

Credits: 3

**ENGL 331 - Historical Development of the English Language**

An examination of each historical period to discover the structure of the language, its spelling, vocabulary, syntax, and the influences of social conditions upon it.

**Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

**ENGL 332 - Modern English Grammar and Syntax**

Brief history of the English language; thorough study of traditional and transformational grammar with emphasis on syntax. Differences between prescriptive and descriptive grammar and problems of current usage.

**Prerequisites & Notes**

ENGL 101 or ENGL 102

Credits: 3

**ENGL 336 - Second Language Acquisition**

A course designed to acquaint the prospective teacher with theories of second language acquisition (SLA). SLA surveys the processes of acquiring/ learning language including the following issues: sound system-phonemic inventory; words-lexicon; semantics; syntax; critical period for second language learning; linguistic creativity, competence and performance.

Credits: 3

**ENGL 338 - Creative Writing: Creative Nonfiction**

This writing workshop provides the opportunity for students to develop their abilities in writing creative nonfiction. Original student work is read and discussed in class and in conferences with the instructor. Reading of classic and contemporary creative nonfiction is assigned.

**Prerequisites & Notes**

ENGL 225

Credits: 3-6 credits

**ENGL 339 - Creative Writing: Fiction**



This writing workshop provides the opportunity for students to develop their abilities in writing fiction. Original student work is read and discussed in class and in conferences with the instructor. Reading of classic and contemporary fiction is assigned. This course may be repeated for up to six credits.

**Prerequisites & Notes**

ENGL 225

Credits: 3

**ENGL 340 - Creative Writing: Poetry**

This writing workshop provides the opportunity for students to develop their abilities in writing poetry. Original student work is read and discussed in class and in conferences with the instructor. Reading of classic and contemporary poetry is assigned. This course may be repeated for up to six credits.

**Prerequisites & Notes**

ENGL 225

Credits: 3

**ENGL 349 - Creative Writing: Screenplay**

Students enrolled in Creative Writing:Screenplay will learn how to write the Hollywood narrative screenplay. Students will learn how to develop a workable story and characters that show growth. Students will write a screenplay and develop a marketing plan to sell it.

Credits: 3

**ENGL 360 - Latin Language and Literature**

A reading course in classical and medieval Latin verse and prose, with a continuing review of grammar as necessary.

**Prerequisites & Notes**

ENGL 261 or permission of the instructor.

Credits: 3

**ENGL 365 - Writing for the World Wide**

This course examines the structure form and rhetoric of writing for web environments.

**Prerequisites & Notes**

ENGL 101 OR ENGL 102

Credits: 3

**ENGL 389 - Stratford Shakespeare Tour**

Study of the works and time of Shakespeare, climaxed by a trip to the Stratford Shakespeare Festival in Stratford, Ontario, Canada. Offered in the summer only. Travel fee required.

**Prerequisites & Notes**

ENGL 101 OR ENGL 102 AND ENGL 210 or English major status

Credits: 3

**ENGL 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**ENGL 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**ENGL 398 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

**ENGL 403 - Literary and Cultural Theory**

Selected literary and cultural theory from Plato to the present day, with application to critical analysis of literary arts.

**Prerequisites & Notes**

ENGL 102 OR ENGL 103 AND ENGL 210 or English major status

Credits: 3

**ENGL 409 - Advanced Research Writing**

Course will instruct majors in the B.S. in Professional Writing and B.S. in Creative Writing majors in the goals, audiences, sources, methods, and processes requisite for research and professionalization as writers.

Credits: 3

**ENGL 410 - Literature of the Environment**

Encourage those interested in the rhetoric of science, nature writing, and environmentalism to pose informed questions regarding the language, rhetoric, images, and ideas found in significant poetry and prose, fiction and nonfiction, that concern the environment.

**Prerequisites & Notes**

ENGL 101 OR ENGL 102 AND ENGL 210 or English major status

Credits: 3

### **ENGL 429 - Grant and Proposal Writing**

A review of the research and rhetoric associated with writing successful grants and proposals.

#### **Prerequisites & Notes**

ENGL 102 OR ENGL 103

Credits: 3

### **ENGL 450 - Internship**

Provides work experience at an outside agency, such as newspapers, radio stations, industrial firms, government or social service, and the Pittsburgh Pirates and Pittsburgh Penguins public relations offices.

#### **Prerequisites & Notes**

Adviser approval

Credits: Up to 12

### **ENGL 480 - Literature Seminar**

This seminar focuses on a major author or pair of authors, a single literary genre, or a specific literary period.

#### **Prerequisites & Notes**

ENGL 102 OR ENGL 103 and ENGL 210 or English major status

Credits: 3

### **ENGL 490 - Independent Study**

A program of supervised independent study.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted

Credits: 1 to 3

### **ENGL 491 - Senior Writing Project**

Creative or expository writing projects.

#### **Prerequisites & Notes**

Dean's approval

Credits: 1 to 3

### **ENGL 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ENGL 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

### **ENVS 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ENVS 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ENVS 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ENVS 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ENVS 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ENVS 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ENVS 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ENVS 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ENVS 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ENVS 440 - Science, Technology and the Environment**

A scientific study of interactions of global systems in the geosphere and biosphere. Selected global problems, such as waste production and disposal, energy use, atmospheric warming, ozone depletion, and acid deposition are analyzed along with possible alternatives.

#### **Prerequisites & Notes**

Four courses completed in the natural sciences and mathematics area of the liberal studies program

Credits: 3

### **ENVS 450 - Environmental Science Internship**

Academic credit may be earned through a practicum experience, working for an agency or business.

#### **Prerequisites & Notes**

A minimum of 16 credits completed in the major and approval of the agency or business, the program director and the advisor

Credits: Up to 12

### **ENVS 480 - Environmental Systems Analysis**

The student will investigate an environmental problem in conjunction with an appropriate faculty member as a research project.

**Prerequisites & Notes**

A minimum of 16 credits completed in the major and the approval of the program director and the advisor

Credits: 3

**ENVS 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**ENVS 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**ENVS 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**ERS 100 - Introduction to Exercise Science: Careers and Content**

This course introduces students to the exercise science discipline and the numerous sub-disciplines of exercise science. Opportunities are provided to identify the various content areas of exercise science, characteristics of exercise science professionals and current trends in the field. Emphasis is placed on career planning and employment opportunities.

Credits: 3

**ERS 101 - Applied Anatomy**

This course focuses on the structure of the human body with emphasis on the musculoskeletal, cardiorespiratory, and nervous systems. The role of the musculoskeletal system in human movement is explored. Laboratory included.

Credits: 3

**ERS 107 - Introduction to Athletic Training**

Addresses the historical development of athletic training and the scope of present programs, including personnel, space and equipment, necessary supplies, conditioning, pharmacology, classification of sports injuries and tissue response to injuries.

Credits: 3

### **ERS 117 - Prevention & Emergency Care in Athletic Training**

This course is designed to facilitate learning of the cognitive and psychomotor knowledge, skills and abilities utilized in prevention and emergency care in Athletic Training. This course integrates cognitive concepts into progressively higher functional and practical application.

#### **Prerequisites & Notes**

ERS 101 (grade of B or better), ERS 107 (grade of B or better)

Credits: 3

### **ERS 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ERS 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ERS 198 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ERS 200 - Measurement and Statistical Application in Exercise Science**

This course focuses on the collection, analysis, and interpretation of health and fitness data. Computer software applications are used to analyze data with descriptive and inferential statistics.

Credits: 3

### **ERS 201 - Exercise Physiology**

This course focuses on the physiological bases of exercise with emphasis on the responses and adaptations of the human body to a variety of exercise stimuli. Laboratory included.

#### **Prerequisites & Notes**

ERS 101

Credits: 3

### **ERS 202 - Biomechanics**

This course examines human movement using mechanical principles. Human anatomy and basic physics are combined to understand and analyze human movement with specific emphasis on physical activity and exercise. **Biomechanics of movement in people with physical disabilities is also explored.** Laboratory included.

#### **Prerequisites & Notes**

ERS 101 and PHYS 201

Credits: 3

### **ERS 220 - Clinical Experiences in Athletic Training I**

This course is designed to provide opportunities for students to apply previously acquired athletic training knowledge, skills and abilities in the clinical setting under the direct supervision of a program approved preceptor. Emphasis is placed on practicing and implementing the current NATA Education Competencies designated at Level I in the learning over time model.

#### **Prerequisites & Notes**

ERS 117 (grade of C or better) and formal acceptance into the professional strand of the Athletic Training program

Credits: 1

### **ERS 221 - Lower Extremity Pathology, Diagnosis and Manual Techniques in Athletic Training**

This course is designed to integrate cognitive and psychomotor knowledge, skills and abilities, and facilitate practical application of the psychomotor skills specific to competent diagnosis and management of various injuries, conditions and pathologies incurred to the lower extremity.

#### **Prerequisites & Notes**

ERS 117 (grade of C or better) and formal acceptance into the professional strand of the Athletic Training program

Credits: 4

### **ERS 222 - Fundamentals of Research in Athletic Training**

This course is designed to introduce a foundational knowledge of research, the types of research, and the role it plays in athletic training. Emphasis is placed on developing library research skills, identifying research, demonstrating basic scientific writing skills, and becoming a knowledgeable consumer of research in order to apply it in the clinical environment.

#### **Prerequisites & Notes**

Formal acceptance into the professional strand of the Athletic Training program



Credits: 3

### **ERS 240 - Clinical Experiences in Athletic Training II**

This course is designed to provide opportunities for students to apply previously acquired athletic training knowledge, skills and abilities in the clinical setting under the direct supervision of a program approved preceptor. Emphasis is placed on practicing and implementing the current NATA Education Competencies designated at Level II in the learning over time model.

#### **Prerequisites & Notes**

ERS 220 (grade of C or better)

Credits: 1

### **ERS 241 - Upper Extremity Pathology, Diagnosis and Manual Techniques in Athletic Training**

This course is designed to integrate cognitive and psychomotor knowledge, skills and abilities, and facilitate practical application of the psychomotor skills specific to competent diagnosis and management of various injuries, conditions and pathologies incurred to the upper extremity.

#### **Prerequisites & Notes**

ERS 221 (grade of C or better)

Credits: 4

### **ERS 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **ERS 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ERS 298 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ERS 301 - Exercise Leadership: Group Fitness**

This course provides opportunities for practical skills and instruction in various group fitness activities. Emphasis is placed on physiological and biomechanical principles related to group fitness, as well as choreography, safety, and modifications for diverse populations. Current trends and research in the area of group fitness are explored.

**Prerequisites & Notes**

ERS 201 and ERS 202

Credits: 3

**ERS 302 - Exercise Leadership: Resistance Training**

This course provides both the theoretical knowledge and practical skills to safely and effectively design and implement resistance training programs for health and sports performance. Emphasis is placed on physiological and biomechanical principles associated with resistance exercise techniques. Current trends and research in resistance training are explored.

**Prerequisites & Notes**

ERS 201 and ERS 202

Credits: 3

**ERS 307 - Concepts of General Medicine in Athletic Training**

This course is designed to integrate cognitive knowledge and abilities with the practical application of psychomotor skills specific to the assessment and management of general medical conditions. This course will provide foundational knowledge and application related to pharmacology.

**Prerequisites & Notes**

ERS 117 (grade of C or better) and formal acceptance into the professional strand of the Athletic Training program

Credits: 4

**ERS 317 - Therapeutic Modalities Theory & Technique**

This course is designed to integrate cognitive knowledge and abilities with the practical application or psychomotor skills specific to the use of contemporary physical modalities. This course will provide foundational knowledge and application related to the indications, contraindications and methods of application.

**Prerequisites & Notes**

ERS 221 (grade of C or better) and formal acceptance into the professional strand of the Athletic Training program

Credits: 4

**ERS 320 - Clinical Experiences in Athletic Training III**

This course is designed to provide opportunities for students to apply previously acquired athletic training knowledge skills and abilities in the clinical setting under the direct supervision of a program approved preceptor. Emphasis is placed on practicing and implementing the current NATA Education Competencies designated at Level III in the learning over time model.

**Prerequisites & Notes**

ERS 240 (grade of C or better)

Credits: 1

**ERS 330 - Stress Management**

This course provides a comprehensive view of stress and stress management. The theories of stress, the psychophysiology of stress, the relation of stress to the different dimensions of wellness, the assessment of stress, and prevention and intervention techniques are covered. A physical activity component is included focusing on stress reduction techniques.

Credits: 3

**ERS 340 - Clinical Experiences in Athletic Training IV**

This course is designed to provide opportunities at an increasing professional level for students to apply previously acquired athletic training knowledge, skills and abilities in the clinical setting under the direct supervision of a program approved preceptor. Students will practice and implement the current NATA Education Competencies designated at Level IV in the learning over time model.

**Prerequisites & Notes**

ERS 320 (grade of C or better)

Credits: 1

**ERS 347 - Therapeutic Rehabilitation in Athletic Training**

this course is designed to facilitate learning specific to the theory and application of therapeutic rehabilitation techniques for a diverse population. Emphasis is placed on the planning and implementation of therapeutic rehabilitation protocols for the prevention and/or care of various injuries.

**Prerequisites & Notes**

ERS 221 (grade of C or better)

Credits: 4

**ERS 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**ERS 395 - Workshop**

Varies.

## **ERS 398 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **ERS 400 - Wellness Promotion and Programming**

This course examines wellness promotion in **diverse** settings, including community, worksite, clinical, and commercial. Emphasis is placed on synthesis of various concepts related to wellness programming and guidelines for planning, implementing, and evaluating successful programs. **Social and cultural considerations for wellness programming are examined.** Opportunities for planning, implementing, and evaluating programs **for diverse populations** are provided.

### **Prerequisites & Notes**

Sufficient Academic Performance; ERS 200, 301, 302, and BIOL 216

Corequisites: ERS 401, 402 and 403

Credits: 3

## **ERS 401 - Fitness Assessment**

This course provides practical experiences in the selection, administration, and interpretation of various health-related fitness tests. Emphasis is placed on proper technique and communication throughout the assessment process.

### **Prerequisites & Notes**

Sufficient Academic Performance; ERS 200, 301, 302, and BIOL 216

Corequisites: ERS 400, 402 and 403

Credits: 3

## **ERS 402 - Exercise Prescription**

This course provides the theoretical knowledge and practical skills to design personalized exercise programs that elicit specific physiologic responses and adaptations. Emphasis is placed on prescribing safe and effective individualized cardiorespiratory, musculoskeletal and weight management programs.

### **Prerequisites & Notes**

Sufficient Academic Performance; ERS 200, 301, 302, and BIOL 216

Corequisites: ERS 400, 401 and 403

Credits: 3

## **ERS 403 - Advanced Exercise Physiology**

This course provides in depth inquiry into the acute responses and long term adaptations of the human body to various types of exercise from the cellular level to the entire system. Emphasis is placed on the physiological demands of exercise and exercising at terrestrial extremes. Laboratory included.

### **Prerequisites & Notes**

Sufficient Academic Performance; ERS 200, 301, 302 and BIOL 216

Co-requisites: ERS 400, 401, 402

Credits: 3

## **ERS 407 - Health Care Administration in Athletic Training**

Studies topics relevant to management, organization, administration, and professional development in the profession of athletic training. Topics will include discussions specific to diversity in the health care system.

### **Prerequisites & Notes**

ERS387

Credits: 3

## **ERS 410 - Clinical Exercise Physiology**

This course examines cardiopulmonary exercise physiology, the pathophysiology of selected cardiovascular and respiratory diseases, cardiopulmonary rehabilitation, electrocardiography and clinical graded exercise testing. The influence of age, sex, culture, and ethnicity on risk factors for, prevalence of, and outcomes associated with selected cardiovascular and respiratory diseases are emphasized. Laboratory included.

### **Prerequisites & Notes**

Sufficient Academic Performance; Grade of C or better in the following ERS courses: ERS 400, 401, 402, 403; and BIOL 217

Corequisites: ERS 411 and 412

Credits: 3

## **ERS 411 - Exercise Science: Special Populations and Conditions**

This course evaluates the impact of physical activity and exercise on youth, older adults, and individuals with various health conditions and controlled diseases. Changes that occur during growth, development, maturation and the aging process in relation to physical activity/ exercise are examined. Pathophysiology, disease management, medications, exercise testing, and acute responses and chronic adaptations of physical activity/exercise programs for individuals with various health conditions and controlled diseases are identified. **Special considerations for health, disease, and physical activity / exercise programming for diverse populations are explored.**

### **Prerequisites & Notes**

Sufficient Academic Performance; Grade of C or better in the following ERS courses: ERS 400, 401, 402, 403; and BIOL 217

Corequisites: ERS 410 and 412

Credits: 3

## **ERS 412 - Exercise Science: Senior Synthesis**

This course provides the opportunity to synthesize knowledge, skills and abilities in both classroom and supervised practical settings. Emphasis is placed on developing, implementing and evaluating comprehensive exercise programs for diverse clientele. Opportunities to enhance professional and personal development are provided. Valid CPR/AED certification and proof of professional liability insurance required.

### **Prerequisites & Notes**

Sufficient Academic Performance; Grade of C or better in the following ERS courses: ERS 400, 401, 402, 403; and BIOL 217

Corequisites: ERS 410 and 411

Credits: 3

## **ERS 417 - Wellness and Reconditioning in Athletic Training**

This course is designed to facilitate learning specific to safe and effective health-related wellness screening, and the design and implementation of fitness programs for a diverse population. Incorporates theoretical knowledge and skills of health and wellness.

### **Prerequisites & Notes**

ERS 117 (grade of C or better) and formal acceptance into the professional strand of the Athletic Training program

Credits: 3

## **ERS 427 - Mastery in Athletic Training**

A capstone course that allows the student to synthesize and apply knowledge and skills of an entry-level athletic trainer in a comprehensive manner.

### **Prerequisites & Notes**

Completion of 9 credits of ERS 387

Credits: 3

## **ERS 430 - Seminar in Strength and Conditioning**

This course analyzes advanced strength and conditioning theory and practice. Topics include musculoskeletal and cardiorespiratory physiology, metabolism and nutrition, acute responses to exercise and chronic adaptations to training, biomechanical concepts, measurement and evaluation, resistance training techniques, exercise prescription, speed development, and plyometric training. In addition, this course prepares students to take the Certified Strength and Conditioning Specialist (CSCS) examination provided by the National Strength and Conditioning Association (NSCA).

### **Prerequisites & Notes**

ERS 302 or permission of instructor

Credits: 3

## **ERS 431 - Health and Fitness in the Older Adult**

This course examines wellness promotion and health fitness programs for the older adult, particularly people age fifty and above. Emphasis is placed upon prevention or delay of chronic diseases or disorders.

**Prerequisites & Notes**

ERS 401 and ERS 402 or permission of instructor

Credits: 3

**ERS 432 - Pediatric Exercise Science**

This course examines health, physical activity, and physical fitness status of children and adolescents. Physiological responses to exercise, methodologies for assessing physical fitness and physical activity, and promotion of physical activity are discussed. Current research in various topics related to exercise in children and adolescents are explored.

**Prerequisites & Notes**

ERS 401 and ERS 402 or permission of instructor

Credits: 3

**ERS 433 - Research Methods in Exercise Science**

This course examines the scientific method and the role of research in developing knowledge in the areas of health, wellness, fitness, and physical activity. Students develop skills to become critical consumers of research and other publicly disseminated information. Students design a research project using the concepts learned in the class.

**Prerequisites & Notes**

ERS 401, ERS 402, and MATH 152 or permission of instructor

Credits: 3

**ERS 434 - Physiology of Aging and Physical Activity**

This course examines the physiology of the aging process with emphasis on the effects of physical activity on health and on the degenerative process of aging. Emphasis is placed on the physiological responses to aging that are influenced by physical activity.

**Prerequisites & Notes**

ERS 401 and 402

Credits: 3

**ERS 450 - Exercise Science Internship**

This course provides the opportunity for students to develop and apply exercise science knowledge, skills, and abilities in a supervised university approved setting.

**Prerequisites & Notes**

Completion of internship application process which includes the following:

- Completion of internship application form
- Proof of current Student Professional Liability Insurance
- Proof of current CPR/AED and First Aid certification

- Successful Academic Performance
- Overall and major GPA of 2.75 or better
- Successful completion of Exercise Science coursework with a "C" grade or better required in all required upper level (400) courses

Credits: 12

### **ERS 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Senior standing

Credits: 3

### **ERS 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **ERS 497 - Clinical Synthesis in Athletic Training**

This course provides the students with decision-making opportunities to synthesize and integrate all previously acquired athletic training knowledge, skills and abilities in the classroom and clinical setting under the direct supervision of a program approved preceptor. Students will practice and implement all the current NATA Education Competencies designated at the clinical integratin proficiency level.

#### **Prerequisites & Notes**

ERS 340 (grade of C or better)

Credits: 3

### **ERS 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **ERS 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3



### **ESL 001 - Start ESL Reading**

This course is not for native speakers of English. This is a beginning ESL reading course in which students focus on understanding the meaning of written English by reading a variety of texts. Students develop skills to read and understand English to make a transition from word-by-word translation to reading comprehension.

Credits: 0

### **ESL 002 - Basic ESL Reading**

This course is not for native speakers of English. This is a basic ESL reading course in which students read various types of written texts in order to improve reading skills. Topics relate to academic and everyday life. Emphasis is placed on building vocabulary, developing reading strategies and critical thinking skills.

Credits: 0

### **ESL 003 - Intermediate ESL Reading**

This course is not for native speakers of English. Students learn to read English as a second language fluently by reading interesting stories with a variety of topics, controlled for proficiency with appropriate difficulty. The course focuses on developing reading skills including pre-reading, skimming and scanning as well as building and developing a working English vocabulary. Students also write responses to the stories they read and share their reflections with their classmates.

Credits: 0

### **ESL 004 - High Intermediate ESL Reading**

This course is not for native speakers of English. This course uses a variety of authentic, meaningful and stimulating ESL readings. The course focuses on developing critical reading strategies, skimming and scanning abilities, increasing reading speed, building academic vocabulary power, drawing inferences, previewing, predicting and finding the main idea. Students will build successful reading strategies to comprehend language and concepts presented in college textbooks.

Credits: 0

### **ESL 005 - Advanced ESL Reading**

This course is not for native speakers of English. In this course, students read a variety of authentic, meaningful and stimulating texts in order to help students develop critical reading strategies, increase reading speed and build academic vocabulary. The goal of this class is to prepare students with successful ESL reading strategies to comprehend language and concepts that students will encounter in university level textbooks through a variety of disciplines as is required by a liberal studies curriculum.

Credits: 0

### **ESL 011 - Start ESL Listening**

This course is not for native speakers of English. This course helps students with basic ESL listening needs in daily life situations. Students develop their listening and speaking skills in order to interact with others. Emphasis is also placed on recognizing different sounds in American English.

Credits: 0

### **ESL 012 - Basic ESL Listening**

This course is not for native speakers of English. This course helps students with basic ESL listening needs in daily life and basic academic situations. Focus is on listening comprehension, with students developing their listening and speaking skills in order to interact with others.

Credits: 0

### **ESL 013 - High Intermediate ESL Listening**

This course is not for native speakers of English. This course helps students with basic ESL listening needs in daily life and basic academic situations. Focus is on interpersonal communication skills in spoken American English. The course focuses on a variety of listening comprehension skills and strategies in order for students to become more effective listeners in a variety of settings.

Credits: 0

### **ESL 014 - High Intermediate ESL Listening**

This course is not for native speakers of English. This course prepares students for the demands of college-level academic listening tasks. The course aims to enhance students' ESL listening skills and to provide strategies and practice for listening to instructors and classmates who use a variety of speech patterns and vocabulary in class lectures and discussion.

Credits: 0

### **ESL 015 - Advanced ESL Listening**

This course is not for native speakers of English. This course prepares students for the demands of college-level academic listening tasks. The course aims to enhance students' ESL listening skills and to provide strategies and practice for listening to instructors and classmates who use a variety of speech patterns and vocabulary in class lectures and discussion. Students will practice listening to lectures from a variety of academic disciplines and will analyze the material that they hear. Students will also practice strategies for active participation in lectures and class discussion.

Credits: 0

### **ESL 021 - Start ESL Writing**

This course is not for native speakers of English. This course provides basic ESL writing instruction for beginning level English language learners. Students will work on sentence and short-paragraph length writing to express their ideas in English.

Credits: 0

### **ESL 022 - Basic ESL Writing**

This course is not for native speakers of English. This course helps ESL students learn how to generate topics and write paragraph length discourse. There is also an emphasis on reading to understand writing styles and organization

strategies. Students develop writing fluency by keeping a journal of American English essays throughout the semester.

Credits: 0

### **ESL 023 - Intermediate ESL Writing**

This course is not for native speakers of English. This course helps students learn to generate topics and write paragraph length ESL discourse. Sentence structure and writing conventions of academic American English are also explored. Students will study application of vocabulary and grammar skills for writing and practice reading to understand writing better.

Credits: 0

### **ESL 024 - High Intermediate ESL Writing**

This course is not for native speakers of English. This course prepares students to write academic papers by exploring elements of academic writing and its process. Students generate topics, write cohesive paragraphs, use organizational strategies and learn to consider audience. Students also explore self-expression and writing identity through ESL journal writing.

Credits: 0

### **ESL 025 - Advanced ESL Writing**

This course is not for native speakers of English. In this course, students learn to write for a variety of purposes considering their audience. Lessons include developing appropriate writing styles and applying organizational strategies for different styles of texts. Students practice the writing process and practice prewriting, revision and editing. Students also learn about the U.S. academic expectations of writers, including appropriate citation practices and the importance of avoiding plagiarism. Students also learn strategies to improve their writing through self and peer review.

Credits: 0

### **ESL 031 - Start ESL Speaking**

This course is not for native speakers of English. This course emphasizes interpersonal ESL communication at a beginning level. Class meetings center around speaking activities that encourage fluency. Some attention will also be given to cultural considerations, pronunciation and conversation strategies.

Credits: 0

### **ESL 032 - Basic ESL Speaking**

This course is not for native speakers of English. This course emphasizes interpersonal ESL communication with some focus on academic speech. Class meetings center around speaking activities that encourage fluency and comprehensibility. The class will help students set realistic goals for their pronunciation practices and learning strategies to improve their comprehensibility and confidence in speaking English.

Credits: 0

### **ESL 033 - Intermediate ESL Speaking**

This course is not for native speakers of English. This course is designed to help students develop their own identity as an ESL speaker and user. In this course, students draw on their background knowledge of conversation skills from their primary language while they explore standard conventions in American English. The class will help students set realistic goals for their pronunciation studies and learn strategies to improve their comprehensibility and confidence in speaking English.

Credits: 0

### **ESL 034 - High Intermediate ESL Speaking**

This course is not for native speakers of English. This course helps students explore the dynamic of ESL communication between different cultures. It provides students with strategies to communicate with people from different cultures and provides opportunities for students to interact with speakers from different cultural backgrounds. The emphasis of the class is oral communication, but students also learn about nonverbal communication and develop reading and writing skills.

Credits: 0

### **ESL 035 - Advanced ESL Speaking**

This course is not for native speakers of English. This course is designed to enhance students' academic language skills to help them be successful in U.S. college courses. Students will learn to participate effectively in a variety of academic situations, such as discussions, lectures, study groups, team-projects and debates. The students will acquire a number of study skills including note-taking, brainstorming, problem-solving and pragmatic strategies for participating in class discussions.

Credits: 0

### **ESL 041 - Introduction to American English Grammar**

This course is not for native speakers of English. This course presents the basics of American English grammar with an emphasis on conversational strategies.

Credits: 0

### **ESL 042 - Basic American Grammar**

This course is not for native speakers of English. This course presents the basics of American English grammar with an emphasis on the sources from authentic written texts.

Credits: 0

### **ESL 043 - Intermediate American English Grammar**

This course is not for native speakers of English. This course is designed to reinforce and refine knowledge of common grammatical structures. Students will increase their familiarity with and use of standard grammatical structures. Emphasis will be placed on grammatical structures common to academic speech and writing.

Credits: 0

### **ESL 044 - High Intermediate American English Grammar**

This course is not for native speakers of English. This course is designed to reinforce and refine knowledge of common grammatical structures. Students will increase their familiarity with and use of standard grammatical structures. Emphasis will be placed on grammatical structures common to academic speech and writing.

Credits: 0

### **ESL 045 - Advanced American English Grammar**

This course is not for native speakers of English. This course is designed to develop the abilities needed to use a variety of grammatical structures effectively and efficiently. The emphasis is on academic English in oral and written communication.

Credits: 0

### **ESL 051 - Introduction to American Culture**

This course is not for native speakers of English. In this course, students learn about U.S. culture and explore resources available in the community of Slippery Rock, PA. students study pragmatic strategies to help them have successful interactions with others in the Slippery Rock community.

Credits: 0

### **ESL 052 - Exploring American Culture I**

This course is not for native speakers of English. In this course, students learn about American life on campus and in the town and region. Students will learn to use the resources available at SRU and in Slippery Rock and Pittsburgh area. The aim of the course is to help students adjust more quickly and completely to living and studying in America and at SRU.

Credits: 0

### **ESL 053 - Exploring American Culture II**

This course is not for native speakers of English. In this course, students learn about American life on campus and in the town of Slippery Rock and the Pittsburgh region. Students will compare cultural perspectives from around the world. In addition, students will explore academic culture at SRU and learn to use the resources available at SRU.

Credits: 0

### **ESL 054 - Understanding American Culture**

This course is not for native speakers of English. In this course, students learn about American life on campus and in the town and region. Students will compare cultural perspectives from around the world. In addition, students will explore academic culture at SRU and learn to use the resources available at SRU. By exploring culture through a variety of activities, both in and outside of the classroom, students develop a repertoire of listening, speaking, reading and writing strategies for effective interactions in the U.S.

Credits: 0

### **ESL 055 - Living in America**

This course is not for native speakers of English. This course exposes students to a combination of American history and culture. Students will explore a variety of cultural topics and historical events. A multimedia approach will be used to develop cultural awareness. The class will encourage students to engage in open communication concerning their understandings and assumptions about life in the U.S. Students will participate in group projects in which they present cultural and historical backgrounds about important U.S. events or practices. Students will also explore the implication of U.S. history and culture for university life.

Credits: 0

### **ESL 061 - ESL Tutorial**

This course is not for native speakers of English. This course is a required tutorial. ESL tutoring provides individualized attention for students' language learning needs by pairing them with SRU students for small group instruction and interactions.

Credits: 0

### **ESL 062 - ESL Tutorial II**

This course is not for native speakers of English. This course is a required tutorial. ESL tutoring provides individualized attention for students' language learning needs by pairing them with SRU students for small group instruction.

Credits: 0

### **ESL 063 - ESL Tutorial III**

This course is not for native speakers of English. This course is a required tutorial. ESL tutoring provides individualized attention for students' language learning needs by pairing them with SRU students for small group instruction.

Credits: 0

### **ESL 064 - ESL Tutorial IV**

This course is not for native speakers of English. This course is a required tutorial. ESL tutoring provides individualized attention for students' language learning needs by pairing them with SRU students for small group instruction.

Credits: 0

### **ESL 065 - Independent Seminar**

This course is not for native speakers of English. This course is a self-driven, student-oriented academic ESL practice session. In the beginning of a semester, each student meets with the director about their study plan in an American university and the director assigns a semester-long task. In the middle and at the end of a semester, the student must report the progress and the outcome of the study to the director.

Credits: 0

### **FIN 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only “basis and not as a permanent part of the department’s curriculum.

### **FIN 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **FIN 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **FIN 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only “basis and not as a permanent part of the department’s curriculum.

### **FIN 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **FIN 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **FIN 303 - Issues in Global Business**

This course will focus on fundamental issues in the modern globalization of business. The topics covered will include the cultural environments in which business work, politics and law in global business, economic integration, global trade and investment, global finance, global operations and managing global businesses. A special emphasis will be placed on the challenges and opportunities presented to global businesses by the social, political and economic diversity encountered in the global marketplace.

#### **Prerequisites & Notes**

ECON201 and 202

Credits: 3

### **FIN 304 - Money and Banking**

Emphasis is upon monetary policy, how it is implemented, the theories on which it is based, and the implication of this policy on our economy.

#### **Prerequisites & Notes**

ECON 201

Credits: 3

### **FIN 318 - Intermediate Statistical Analysis**

Statistical analysis encompassing multiple regression and correlation, ANOVA (simple and multivariate), goodness of fit, statistical decision analysis, and advanced forecasting techniques.

#### **Prerequisites & Notes**

ECON 219 or MGMT 219, or permission of the instructor

Credits: 3

### **FIN 320 - Managerial Finance**

Capital budgeting, cost of capital, management of short and long term assets, mergers and financial reorganization.

#### **Prerequisites & Notes**

ACCT 210

Credits: 3

### **FIN 321 - Investments**

Introduction to security markets and their operation; investment alternatives; fundamentals of investment analysis.

#### **Prerequisites & Notes**

FIN 320 or permission of the instructor

Credits: 3

### **FIN 322 - Bank Financial Management**

Principles of bank financial management including sources and uses of funds and the role of the bank in financial markets.

#### **Prerequisites & Notes**

FIN 320 or permission of the instructor

Credits: 3

### **FIN 323 - Financial Markets and Institutions**



Introduction to financial markets and institutions and to their role in financing business, consumers and government.

**Prerequisites & Notes**

FIN 320 or permission of the instructor

Credits: 3

**FIN 326 - Intermediate Corporate Finance**

This course provides in-depth analysis of topics addressed in corporate finance and covers additional advanced topics including but not limited to real asset valuation, corporate governance, short-term financial management, and mergers and acquisitions.

**Prerequisites & Notes**

FIN 320

Credits: 3

**FIN 327 - Management of Working Capital**

In-depth analysis of financial management of business firms with special emphasis on the management of working capital.

**Prerequisites & Notes**

FIN 320

Credits: 3

**FIN 328 - Long Term Financial Management**

This course will examine such topics as capital budgeting under certainty, uncertainty and inflationary conditions, lease/buy decisions, capital structure theory, dividend policy and the value of the firm, sources of long-term financing and financing with options.

**Prerequisites & Notes**

FIN 320

Credits: 3

**FIN 329 - Principles of Insurance**

A study of the basic principles of insurance and risk. Topics include property and liability insurance; the financial structure and organization of insurance business, and the different fields of insurance.

**Prerequisites & Notes**

FIN 320

Credits: 3

**FIN 340 - Real Estate Investment**

The study of the nature and scope of real estate investment, investment decision process and investment strategy, financial and risk analysis, tax implications, institutional real estate investment and real estate investment trust funds.

**Prerequisites & Notes**

FIN 320

Credits: 3

**FIN 341 - Entrepreneurial Finance**

Entrepreneurial finance is the application and adaptation of financial tools and techniques to the planning, funding, operation, valuation and harvesting of entrepreneurial ventures.

**Prerequisites & Notes**

FIN 320

Credits: 3

**FIN 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**FIN 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**FIN 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**FIN 409 - Retirement and Estate Planning**

In-depth study of the tools and techniques available for use in retirement and estate planning from a personal financial planning perspective. Particular emphasis will be given to retirement cash flow analysis and planning as well as the transfer tax system inherent in estate planning and the methods available for estate management.

**Prerequisites & Notes**

FIN 321, FIN 329, ACCT 240, ACCT 308 or permission of the instructor

Credits: 3

**FIN 410 - Personal Financial Planning Seminar**

Synthesize the topics requisite to expertise in personal financial planning as explored principally through case studies. These topics include risk management, investment, insurance and tax planning, and retirement and estate planning.

**Prerequisites & Notes**

FIN 321, FIN 329, FIN 409, ACCT 240, ACCT 308 or permission of the instructor

Credits: 3

**FIN 420 - Finance Seminar**

Capital budgeting, cost of capital, capital structure, working capital management and long-term financing.

**Prerequisites & Notes**

FIN 320 or permission of the instructor

Credits: 3

**FIN 421 - Portfolio Theory**

Advanced treatment of investment concepts. In-depth analysis of Modern Portfolio Theory, Capital Asset Pricing Model (CAPM) and its extensions, options, interest options, future markets and precious metals.

**Prerequisites & Notes**

FIN 321

Credits: 3

**FIN 427 - International Financial Management**

International monetary systems, sources of funds, import and export financing; taxation of multinational corporations, foreign investment decisions; political risk; risk of foreign exchange losses; management of working capital.

**Prerequisites & Notes**

FIN 320

Credits: 3

**FIN 430 - International Banking**

Internationalization of U.S. and foreign banks to meet the global financial needs of multi-national activities.

**Prerequisites & Notes**

FIN 320, FIN 323 is recommended

Credits: 3

**FIN 450 - Internship**

Supervised placement and research in selected public and private agencies at appropriate institutions.

**Prerequisites & Notes**

Application and permission of the instructor

Credits: 3

### **FIN 490 - Independent Study**

In-depth reading and/or research in an area of particular interest to the student, done with the guidance of a faculty member.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

12 credits of major courses, application, permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

### **FIN 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **FIN 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **FREN 101 - French Language and Culture I**

This course is the first in a three course series which will provide an introduction to the French language.

Credits: 3

## **FREN 102 - French Language and Culture II**

This course is the second in a three course series which will provide an introduction to the French language.

#### **Prerequisites & Notes**

FREN 101 or the equivalent.

Credits: 3

## **FREN 103 - French Language and Culture III**

This course is the third in a three course series which will provide an introduction to the French language.

**Prerequisites & Notes**

FREN 102 or the equivalent

Credits: 3

**FREN 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

**FREN 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**FREN 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

**FREN 201 - French Conversation 1**

A functional course in speaking and writing French, stressing everyday vocabulary and sentence structure. Some grammar review.

**Prerequisites & Notes**

FREN 103 or the equivalent

Credits: 3

**FREN 220 - Reading in French**

An introduction to reading in French at the intermediate level.

**Prerequisites & Notes**

FREN 103 or the equivalent

Credits: 3

**FREN 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **FREN 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **FREN 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **FREN 300 - French Grammar and Composition 1**

An intermediate grammar review course emphasizing the basic structure of French.

#### **Prerequisites & Notes**

FREN 201 or 220 or the equivalent

Credits: 3

### **FREN 301 - French Conversation 2**

Development of French vocabulary and conversation skills through intensive study of selected theme areas.

#### **Prerequisites & Notes**

FREN 201, 220 or permission of the instructor

Credits: 3

### **FREN 303 - Professional French**

Designed to acquaint the student with formal registers and formulas of communication used in all professional communication in the French-speaking world.

New title Spring 2014; Old title=Business French

#### **Prerequisites & Notes**

FREN 201 or 220 or the equivalent

Credits: 3

### **FREN 305 - French Civilization**

An advanced course in the study of the development of French civilization from the earliest times to the end of the 19th century.

#### **Prerequisites & Notes**

FREN 201 or 220 or the equivalent

Credits: 3

### **FREN 306 - Modern France and Francophone Identities**

An exploration of diverse voices, social groups and societies in francophone literatures through works by francophone writers from all over the world. Designed as an introduction to the literatures and cultures of the francophone world, this course considers issues of social status, history, resistance, representation and identity. Taught in French.

#### **Prerequisites & Notes**

FREN 200 or the equivalent

Credits: 3

### **FREN 315 - French Study Abroad**

This course is designed for students who wish to study French/Francophone society firsthand. Students will study the culture, literature, history, art, and other issues concerning the country where the program is offered. Permission of instructor required.

Credits: 3

### **FREN 320 - Main Currents in French Literature**

An introduction to the study of French literature through prose, drama and poetry.

#### **Prerequisites & Notes**

FREN 201 or 220 or the equivalent

Credits: 3

### **FREN 330 - French Literature from the 18th Century to the Present**

Representative works and literary movements in French literature from the eighteenth century to the present will be studied.

#### **Prerequisites & Notes**

FREN 201 or 220

Credits: 3

### **FREN 350 - French Linguistics and Phonetics**

An introduction to general linguistics and the practical application of phonetics to the study of French. Analysis and practice of the sound system of the foreign language.

#### **Prerequisites & Notes**

Six credits at the 200 or above level

Credits: 3

### **FREN 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **FREN 395 - Workshop**

Special topics of interest to undergraduates and selected community members.

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **FREN 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **FREN 400 - French Grammar and Composition 2**

An advanced course in the study of French grammar and usage.

#### **Prerequisites & Notes**

FREN 300

Credits: 3

### **FREN 401 - French Conversation 3**

This course will provide the opportunity for advanced students to improve their aural comprehension and their conversation abilities in French.

#### **Prerequisites & Notes**



Six credits of French at the 300 level

Credits: 3

### **FREN 402 - Eighteenth-Century Novel**

A study of the Age of Enlightenment as reflected in the novel.

#### **Prerequisites & Notes**

Six credits of French at the 300 level

Credits: 3

### **FREN 403 - Nineteenth-Century French Literature**

Readings from the romantic, realistic and naturalistic movements.

#### **Prerequisites & Notes**

Six credits of French at the 300 level

Credits: 3

### **FREN 404 - Modern French Literature**

A study of various aspects of modern French literature.

#### **Prerequisites & Notes**

Six credits of French at the 300 level

Credits: 3

### **FREN 411 - Literature of the Classical Period**

A study of French Classicism, emphasizing the plays of Corneille, Moliere and Racine.

#### **Prerequisites & Notes**

Six credits of French at the 300 level

Credits: 3

### **FREN 430 - French Literature 12th to 17th Century**

Representative works and literary movements in French Literature from the 12th through the 17th centuries will be studied.

#### **Prerequisites & Notes**

FREN300 or equivalent

Credits: 3

### **FREN 490 - Independent Study**

Students have an opportunity to study selected areas in greater concentration.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted

Credits: 1 to 3

**FREN 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**FREN 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

**GERM 101 - German Language and Culture I**

This course is the first in a three course series which will provide an introduction to the German language.

Credits: 3

**GERM 102 - German Language and Culture II**

This course is the second in a three course series which will provide an introduction to the German language.

**Prerequisites & Notes**

GERM 101 or the equivalent

Credits: 3

**GERM 103 - German Language and Culture III**

This course is a third in a three course series which will provide an introduction to the German language.

**Prerequisites & Notes**

GERM 102 or the equivalent

Credits: 3

### **GERM 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **GERM 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **GERM 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **GERM 201 - Communication in German**

A functional course in speaking and writing German, stressing everyday vocabulary and sentence structure.

#### **Prerequisites & Notes**

GERM 103 or the equivalent

Credits: 3

### **GERM 210 - German Literature in Translation**

A study of representative German literary works, emphasizing the persons and ideas which have influenced German foreign literatures. The course will be given in English; no knowledge of German required. For non majors.

Credits: 3

### **GERM 220 - Reading in German**

An introduction reading in German at the intermediate level.

#### **Prerequisites & Notes**

GERM 103 or the equivalent

Credits: 3

### **GERM 257 - German Immersion**

This course, offered in Germany, introduces students first-hand to German culture, including aspects of everyday life in Germany. Course facilitates understanding of Germany's history and civilization through study of important monuments and urban design.

#### **Prerequisites & Notes**

GERM103 or permission of instructor

Credits: 3

### **GERM 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **GERM 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **GERM 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **GERM 300 - German Grammar Review**

An intermediate grammar review course, emphasizing the basic structures of German.

#### **Prerequisites & Notes**

GERM 201 or 220 or the equivalent

Credits: 3

### **GERM 303 - Business German**

A study of the German language as related to business and commerce. A consideration of the form and language of the business letter in German.

#### **Prerequisites & Notes**

GERM 201 or 220 or the equivalent

Credits: 3

### **GERM 305 - German Civilization**

A study of the development of German civilization from its earliest beginnings to its modern times. Course is for majors and non-majors.

#### **Prerequisites & Notes**

GERM 201 or 220 or the equivalent

Credits: 3

### **GERM 306 - Modern German Civilization**

A study of the civilization of German-speaking areas in the twentieth century.

#### **Prerequisites & Notes**

GERM 201 or 220 or the equivalent

Credits: 3

### **GERM 307 - German Conversation and Composition 1**

Course developing student abilities in listening, speaking and writing German. Emphasis is on discussions of student compositions on a variety of issues relating to modern Germany.

#### **Prerequisites & Notes**

GERM220 or permission of instructor

Credits: 3

### **GERM 308 - German Conversation and Composition 2**

Course developing student abilities in listening, speaking and writing German. Emphasis is on discussions of student compositions on a variety of issues relating to modern German.

#### **Prerequisites & Notes**

GERM307 or permission of instructor

Credits: 3

### **GERM 320 - Main Currents in German Literature**

An introduction to the study of German literature through prose, drama, and poetry.

#### **Prerequisites & Notes**

GERM250 or 255 or equivalent

Credits: 3

### **GERM 350 - German Linguistics and Phonetics**

An introduction to general linguistics and the practical application of linguistics to the study of German, Analysis and practice of the sound system of the foreign language.

#### **Prerequisites & Notes**

GERM250 or 255

Credits: 3

### **GERM 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **GERM 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **GERM 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **GERM 400 - Advanced Grammar**

An advanced course in the study of German grammar and usage.

#### **Prerequisites & Notes**

GERM300

Credits: 3

### **GERM 411 - Contemporary German Literature**

A study of the outstanding authors writing in German in the twentieth century.

#### **Prerequisites & Notes**

6 credits of German at the 300 level

Credits: 3

### **GERM 490 - Independent Study**

Students have the opportunity to study selected areas in greater concentration.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Credits: 1-3

### **GERM 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **GERM 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **GERO 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **GERO 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **GERO 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **GERO 265 - Aging and the Older Person**

Introduction to the interdisciplinary study of gerontology as a social, behavioral and biological science. A prerequisite to courses in gerontology and aging. Women and Aging examines the effects of women growing older in a changing society. Social, psychological, physical, economic, cultural, and political implications will be discussed, including health concerns, changing roles, and discrimination.

Credits: 3

## **GERO 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

## **GERO 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **GERO 298 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **GERO 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

## **GERO 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **GERO 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **GERO 414 - Death and Dying**



This course is an introduction to the study of death, dying and bereavement which utilizes a multidisciplinary approach. This course is aimed at sensitizing students to the subject of dying, death and bereavement, aiding students in adjusting to the death of a significant other, helping students examine their feeling and reactions to death and grieving and introducing students to diverse perspectives. This course is offered on the undergraduate and graduate (GERO 644) levels.

Credits: 3

### **GERO 425 - Women and Aging**

Examines the effects of women growing older in a changing society. Social, psychological, physical, economic, cultural, and political implications will be discussed, including health concerns, changing roles, and discrimination.

Credits: 3

### **GERO 450 - Gerontology Internship**

Individually designed experiential learning intended to provide the student with an opportunity for observation and participation in a wide range of gerontological activities in an approved institution or agency setting.

#### **Prerequisites & Notes**

Nine credits of approved gerontology coursework or permission of the gerontology coordinator

Credits: Up to 12

### **GERO 465 - Seminar in Gerontology**

An interdisciplinary investigation of selected facets of gerontology. Course content is drawn from the biological, behavioral, and social sciences, and it will include a consideration of current issues in such areas as mental health, housing, economics, transportation, preventive health program, long-term care, and leisure work activities.

#### **Prerequisites & Notes**

GERO 265 or equivalent work experience; additional coursework in gerontology is desirable

Credits: 3

### **GERO 490 - Independent Study**

A rigorous investigation of a topic of relevance to gerontology not covered in detail in existing courses. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of gerontology coordinator, instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

### **GERO 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **GERO 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **GERO 595 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **GERO 598 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **GES 100 - Discover Geography**

An introductory course that surveys the field of geography and demonstrates the relevance of basic geographic concepts and methodologies.

Credits: 3

### **GES 105 - World Regional Geography**

This course provides an introduction to the regional concept, classification of major culture regions throughout the world and a description of the physiocultural character of those regions.

Credits: 3

### **GES 107 - Environments and Peoples of the Developed World**

An introductory course that surveys the developed world, stressing the economic, social, political, and environmental characteristics of US and Canada, Europe, the Russian Republics, and Japan.

Credits: 3

### **GES 109 - Environments and Peoples of the Developing World**

An introductory course that surveys the developing world, stressing the economic, social, political, and environmental characteristics of Latin America, Africa, and Asia.

Credits: 3

### **GES 115 - Map Reading and Interpretation**

Provides fundamental map concepts with an emphasis on using and understanding an atlas, making and interpreting computer maps, and reading and interpreting topographic maps.

Credits: 1

### **GES 135 - Introduction to Environmental Problems**

An introduction to some of the more crucial environmental problems and alternative solutions that are available.

Credits: 3

### **GES 150 - The Natural Environment**

An introduction to interrelationships among the physical elements of the environment, including the study of vegetation, soils and landforms.

Credits: 3

### **GES 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **GES 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **GES 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **GES 201 - Latin America and the Caribbean**

Consideration is given to physical, historical, cultural, political, and economic patterns in Latin America and the Caribbean.

Credits: 3

### **GES 202 - United States and Canada**

An introductory course that surveys the patterns, connections, and evolution of environments, cultures, and economies of the U.S. and Canada.

Credits: 3

### **GES 204 - Post-Soviet Union**

Study of the Soviet Union and Soviet-bloc nations with emphasis on economic, physical, political, and cultural aspects.

Credits: 3

### **GES 215 - Rural and Urban Planning**

An introduction to social and physical planning for rural areas, towns, and cities.

Credits: 3

### **GES 220 - General Methods of Fieldwork**

A survey of methodology commonly employed for field research, including techniques of field observation, the use of field equipment, field mapping procedures, and the identification and tabulation of primary field data.

#### **Prerequisites & Notes**

G&ES 115

Credits: 3

### **GES 235 - Conservation**

An examination of the earth's complex resource base which places special emphasis on the geographic location of resources and on conservation/preservation practices.

#### **Prerequisites & Notes**

G&ES 135 or permission of the instructor

Credits: 3

### **GES 242 - Geography of Religion**

The distribution and arrangement of world religions, giving consideration to the comparative influence of religion on the cultural landscape and on regional development.

Credits: 3

### **GES 244 - Environmental Justice**

An examination of basic factors underlying the spatial allocation and development of resources.

Credits: 3

### **GES 245 - Population and Resources**

Basic demographic principles and their relationship to regional development.

Credits: 3

### **GES 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **GES 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **GES 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **GES 301 - Geography of Rural Areas**

Analyzes the structure and primary functional patterns of rural areas, with an emphasis on agricultural and industrial land use, problems of rural development, and population shifts.

Credits: 3

### **GES 302 - Cultural Geography**

This course explores basic environmental and spatial approaches in the field of cultural geography. These approaches include cultural ecology, cultural history, cultural diffusion, cultural region, cultural integration and symbolism, and the cultural landscape.

Credits: 3

### **GES 303 - Asia**

A survey of the major regions of Asia emphasizing their physical, cultural, and political characteristics. Several countries are selected for special emphasis.

Credits: 3

### **GES 307 - Australia**

This course will introduce students to the environments and peoples of Australia. Australia's natural environment, Aboriginal and white culture, economy, politics, and major current public issues will be covered.

Credits: 3

### **GES 308 - Europe**

The evolution of nations, the cultural landscape, and the spatial-economic organization of Europe.

Credits: 3

### **GES 309 - Africa**

This course surveys the patterns, connections, and evolution of environments, cultures, nations, and economies of Africa, with an emphasis on maps, regions, and images.

Credits: 3

### **GES 310 - Urban Geography**

The course is designed to provide insights into the nature of cities and smaller urban places.

Credits: 3

### **GES 315 - Cartography I**

Basic elements of computer-assisted thematic map design are discussed. Cartographic projects serve as a means of applying major concepts such as map projections, data classification, color theory, and qualitative/quantitative symbology. Includes a lab.

#### **Prerequisites & Notes**

G&ES 115

Credits: 3

### **GES 324 - Environmental Law and Policy**

The study of political control of the environment. Focus on the roles played by individuals and groups. Cross-listed with POLS 324.

Credits: 3

### **GES 325 - Introduction to Geographic Information Science**

This course introduces students to integrated computer tools for the capture, storage, manipulation, analysis, and printout of earth-referenced data. Computers are used to store maps, analyze maps, and produce new maps along with their attributes to address societal issues. Includes a lab. Cross listed as G&ES525.

**Prerequisites & Notes**

G&ES 115

Credits: 3

**GES 330 - Political Geography**

The effects of politics on geography and the effects of geographic factors on politics.

Credits: 3

**GES 331 - Economic Geography**

Examines human use and economic organization of the earth.

Credits: 3

**GES 345 - Population Analysis**

A study of the techniques of population analysis with respect to growth, distribution, fertility, migration, and other demographic characteristics.

**Prerequisites & Notes**

Some background in algebra or statistics

Credits: 3

**GES 355 - Earth's Changing Climate**

This course examines the interrelationship between climate and human activities. We will study the processes that control Earth's climate with a focus on the flow of energy through the Earth system and a study of the interactions between the atmosphere, the ocean, and the land surface. We will investigate climate change on variable time scales with a focus on how climate affects humans and the environment. Further, we will examine which factors influence society's decision in response to climate change.

Credits: 3

**GES 356 - Earth's Changing Climate Laboratory**

This course examines Earth's climate changes through an investigation of climate data and climate models. We will investigate climate change on variable time scales and in different geographic regions with a quantitative focus.

**Prerequisites & Notes**

EGEO121; Co-requisite G&ES355

Credits: 1

**GES 361 - Gender & the Environment**

Gender and the Environment will explore the ways that human interaction with the natural environment is shaped by gender roles and gender inequality in cultures around the world. Topics covered will include gender differences in

resource access, connections between environmental degradation and women's oppression, cultural metaphors that link nature and gender (e.g. "mother earth") and the way that gender shapes environmental movements.

**Prerequisites & Notes**

One other Geography or Women's Studies course.

Credits: 3

**GES 375 - Geography of Intolerance**

Analyzes cross-culturally the impact on resource allocation and the spatial implications of gender, racial, religious, political and class discrimination.

Credits: 3

**GES 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**GES 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**GES 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**GES 410 - Remote Sensing**

Covers the electromagnetic and thermal properties of earth objects, principles and operations of sensors, and the practical applications of remote sensing. Lectures will be supplemented with exercises requiring computer processing of satellite data.

Credits: 3

**GES 415 - Cartography II**

Advanced issues and theory of cartographic design are discussed. Cartographic applications include flow maps, bivariate statistical mapping, cartograms, interactive maps, and map animation. Includes a lab.

**Prerequisites & Notes**

G&ES 315 or permission of the instructor

Credits: 3



## **GES 420 - Historical Geography of Anglo-America**

A study of settlement patterns, land utilization, and sequent occupancies for selected periods since 1500. A student is expected to have background in geography and American history.

Credits: 3

## **GES 425 - Advanced Geographic Information Systems**

This course investigates and applies advanced Geographic Information Systems (GIS) techniques. Students will learn current techniques for the collection, evaluation, input, analysis, and output of spatial data with various GIS tools. Students will apply these techniques to real world problems in areas such as environmental monitoring, environmental modeling, urban planning, and economic location. Includes a lab.

### **Prerequisites & Notes**

G&ES 315, 325

Credits: 3

## **GES 426 - Environmental Modeling**

Environmental models quantify processes such as runoff generation, water pollution, erosion, landscape change, and change of biodiversity. In this course, these models will be applied to real-world examples. Includes a lab.

### **Prerequisites & Notes**

GES 325

Credits: 3

## **GES 435 - Preservation Planning**

A study of the American preservation movement as it relates to features of the cultural landscape. The origin and diffusion of building styles and the methods and problems associated with their preservation are emphasized.

Credits: 3

## **GES 444 - World Environmental Thought**

Students will explore and evaluate geographic and environmental ideas from western and non-western cultures.

### **Prerequisites & Notes**

Junior standing and/or permission of the instructor

Credits: 3

## **GES 445 - Regional Planning**

Deals with planning for the future of regions that are larger than any single local government. Consideration is given to economic development, land use, transportation, and other regional planning concerns. Cross-listed with PUBA 445.

### **Prerequisites & Notes**

G&ES/PUBA 215

Credits: 3

### **GES 450 - Internship**

Supervised placement and field experience in a selected public or private agency.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: Up to 12

### **GES 469 - Field Investigations in the Geosciences**

This course will provide students with the opportunity to practice the nature of fieldwork by observing, interpreting, collecting data and analyzing physical and human landscapes, and the natural, cultural and economic forces that are shaping them.

Course is cross-listed with EGEO469

Credits: 1-3

### **GES 489 - Field Studies**

Students use the scientific method in selecting a topic, collecting data in the field, analyzing these data, and preparing a formal paper.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 3

### **GES 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 3

### **GES 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **GES 498 - Selected Topics**

The in-depth examination of a specific topic. The topic selected and its treatment depend on the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

### **GES 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **GES 595 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **GES 598 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **HIST 151 - Ancient and Medieval World**

Major civilizations of the Western world as they meet and interact with the East. Emphasis is upon cultural achievements and institutional development to 1650.

Credits: 3

### **HIST 152 - Rise of the Modern World**

This course surveys major events in world history from the Renaissance to the end of the 19th Century.

Credits: 3

### **HIST 153 - Contemporary World History**

This course is a survey of major events, themes, and individuals in world history from 1900 to the present day. Topics could include the World Wars, the Cold War, and the emergence of new powers.

Credits: 3

### **HIST 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

### **HIST 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-3

### **HIST 198 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

### **HIST 201 - Colonial America to 1815**

Survey of American history during the period; topics may include the indigenous cultures that formed America's first permanent societies, the arrival of European colonists, the origins of slavery, the American Revolution, and the founding and expansion of the United States.

Credits: 3

### **HIST 202 - United States, 1815-1920**

Survey of American history during the period; topics may include westward expansion, sectional divisions over slavery, the Civil War, Reconstruction, industrialization, Progressivism and the increasing influence of the US in global affairs.

Credits: 3

### **HIST 203 - U.S. History Since 1920**

Survey of American history during the period; topics may include the changing role of government in domestic life, the Great Depression, World War II, the Cold War, the struggle for equality and civil rights among minority groups, postwar political realignments, and the changing role of the United States in the age of globalization.

Credits: 3

### **HIST 205 - The Historian's Craft**

The course introduces students to the essential skills associated with historical research and writing, as well as a survey of various historical philosophies, historiography, and careers for history majors.

**Prerequisites & Notes**

Credits: 3

**HIST 233 - African American History to 1876**

To investigate, discuss, and debate the historical experience of African Americans from their origins in West Africa, through the Middle Passage and the Plantation, to the 15th Amendment and the Sell-Out of 1876.

Credits: 3

**HIST 234 - African American History Since 1876**

The historical experiences of African Americans from the collapse of the Reconstruction and the emergence of Booker T. Washington, through the NAACP, UNIA, and the Harlem Renaissance, to the rise of the Nation of Islam, CORE, SCLC, and the election of 1976.

Credits: 3

**HIST 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

**HIST 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-3

**HIST 298 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

**HIST 304 - American Military History**

A survey of the development of all branches of the American military spanning the colonial period to present day. The course includes a brief introduction to the development of the western way of war from pre-Hellenistic conflict through the middle ages in Europe. Technological innovation, evolution of tactical through strategic levels of warfare, and the symbiotic relationship between military development, national policy, and societal expectations will be examined.

**Prerequisites & Notes**

None

Credits: 3

**HIST 305 - Russia to 1855**

A social, political and cultural history from ancient times to the death of Nicholas I.

Credits: 3

**HIST 306 - Russia Since 1855**

Continuity and change in Russia from the reign of Alexander II through the Soviet period.

Credits: 3

**HIST 313 - U.S. Manhood and Masculinities**

An examination of expressions of manhood in American History from the colonial era to the present. Through the use of gender as a category of historical analysis, students will study notions of manhood in social relations, sexuality, the economy and politics.

Credits: 3

**HIST 318 - Gender and Sexuality in European Society**

This course examines gender and sexuality in European society with emphasis on the relationship between ideas about gender and sexuality and their social and cultural manifestations.

Credits: 3

**HIST 319 - History of Women to 1750**

An analysis of women from the earliest civilizations to 1750 through the examination of the lives of ordinary and outstanding women from different levels of the social order.

Credits: 3

**HIST 320 - History of Women from 1750 to the Present**

This course will examine the role of women in the period 1750 to present from a cross-cultural perspective. Through the use of gender as a category of historical analysis and with particular reference to socio-economic differences, we will study the participation of women in the emergence of new national-states; the history of women's labor in the household and the work place, the contribution of women in intellectual life, and the participation of women in the social/political reform movements of the modern era.

Credits: 3

### **HIST 322 - Germany in the Twentieth Century**

Germany's drive for recognition as a world power, culminating in the horror of World War I, failure of the Weimar Republic, the rise of Hitler and Nazism, World War II and the division into East and West Germany.

Credits: 3

### **HIST 330 - Warfare in the Twentieth Century**

A survey of wars in this century with emphasis on World Wars I and II. Technical innovation, military theory, and strategy will be examined along with their relationship to the nations involved.

Credits: 3

### **HIST 331 - England to 1689**

Celts, Anglo-Saxons, Danes, and Normans in the formation of a nation, the medieval period, and the Tudor and Stuart centuries.

Credits: 3

### **HIST 332 - Britain Since 1689**

This course investigates key events and individuals in British history since the Glorious Revolution.

Credits: 3

### **HIST 333 - Medieval Church**

This course examines the medieval church and society with particular emphasis on the ways in which medieval men, women and institutions defined and applied the concepts of sanctity and heresy.

Credits: 3

### **HIST 335 - Outstanding Americans**

A biographical approach to the study of American history. A study is made of the lives of those Americans who have made a contribution to society outside of politics.

Credits: 3

### **HIST 337 - Indians of the United States**

The history and culture of the seven major geographic-cultural groups of native Americans, including analysis of the clash of cultures with European civilization.

Credits: 3

### **HIST 340 - The Historical and Political Legacies of the Vietnam Era**

Course examines the roots, nature, and course of the war in Vietnam and the accompanying cultural and political developments in the United States with a particular concern for the influences of war on our contemporary social and political context. Cross-listed as POLS 340.

Credits: 3

### **HIST 343 - Public History**

This course is intended to introduce students to the practices and theory of public history. Students will gain an understanding of museums, historic preservation, archives, documentary film, and many other methods of preserving and presenting historical content outside the classroom.

Credits: 3

### **HIST 344 - The American City**

This course explores the history of American cities from the colonial period through the present day, with particular emphasis on the late 19th and 20th centuries. Examines the formation and evolution of the physical urban environment; the city as a site of race, class, and ethnic interactions; urban political, economic, and cultural evolution; transportation and suburbanization; and the consequences of the "urban crisis" of post-World War II era.

Credits: 3

### **HIST 346 - Rise of Imperial Britain**

This course is a study of key events, people, and trends that shaped British history from the Act of Union that brought England, Scotland, Wales and Ireland together into a single nation, until the eve of WWI. This course will use literature, film, art, and primary source documents, as well as textbooks to examine Britain's rise to be the largest and most powerful empire in the world.

Credits: 3

### **HIST 347 - Twentieth Century British Culture**

This course is a study of key events, people, and trends that shaped British culture throughout the twentieth century. The course will focus on such moments as the two world wars, decolonization, and the rise of a multi-cultural populace. It will provide the historical narrative and then analyze the cultural impact through the use of film, television, art, theater, photography and music.

Credits: 3

### **HIST 350 - The American Civil War**

An examination of the causes, conduct, and consequences of the American Civil War with emphasis given to its political, constitutional, economic, military, and social ramifications.

Credits: 3



### **HIST 351 - Latin America to 1830**

Political, economic, and social development of the Spanish and Portuguese colonies in America, culminating in the winning of national independence.

Credits: 3

### **HIST 352 - Latin America Since 1830**

Developing countries of Latin America, their internal problems, international relations and historic evolution to the present.

Credits: 3

### **HIST 357 - Challenges of the American Experience I (to 1865)**

An interdisciplinary course including American literature, history, philosophy, and politics examining the roots of American institutions, values and cultures and their significance for the challenges confronting contemporary society.

Credits: 3

### **HIST 358 - Challenges of the American Experience II (1865 to the Present)**

An interdisciplinary course including American literature, history, philosophy, and politics examining the roots of American institutions, values and cultures and their significance for the challenges confronting contemporary society.

Credits: 3

### **HIST 362 - Africa North of the Zambezi**

Language groups, migrations of peoples, external influences, colonialism, and the emergence of independent states.

Credits: 3

### **HIST 363 - Southern Africa**

The Republic of South Africa and the High Commission Territories of Bechuanaland, Swaziland, and Basutoland, including colonialism, imperialism, war, and reconstruction in the 19th and 20th centuries.

Credits: 3

### **HIST 370 - History and the Bible**

The history of the eastern Mediterranean area from 1800 B.C.-100 A.D. with a study of the Old and New Testaments in order to evaluate their historical validity.

Credits: 3

### **HIST 371 - History of Jews**

A course surveying Jewish life and thought from early Roman times to the present. Four thousand years of Jewish participation in most world civilizations are examined, and religious, philosophical, and literary contributions are analyzed.

Credits: 3

### **HIST 376 - Modern Japan**

This course investigates the history of the Japanese people from the beginning of the nineteenth century to the present.

Credits: 3

### **HIST 380 - Egyptology**

A study of the history and culture of ancient Egypt from the old kingdom through the new kingdom. The methods and disciplines utilized in the study of an ancient culture will be analyzed and evaluated.

Credits: 3

### **HIST 381 - East Asian Military Traditions**

This course examines the factors that have distinguished East Asian military practices from the fifth century BCE to modern times.

Credits: 3

### **HIST 382 - Modern Asian Pacific Rim**

This course examines the political, social, economic, technological, and cultural factors that have affected the Asian Pacific Rim's evolution into the most economically dynamic region of the world today.

Credits: 3

### **HIST 386 - Modern China**

In this course we investigate the history of modern China, the major factors which influenced its course and the values that operate in Chinese society today as well as its fast ascent to major international importance.

Credits: 3

### **HIST 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

### **HIST 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-3

### **HIST 398 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

### **HIST 404 - Violence in Post-45 Europe**

This course focuses on three case studies of violence in Europe in the post-WWII era:

1. Displaced Persons and the refugee crisis as a result of the collapse of governments at the end of the war
2. The sectarian violence in Northern Ireland between 1968 and 2000
3. The wars in the Balkans in the 1990's

Credits: 3

### **HIST 406 - Mass Killing and Genocide in the Modern World**

In this course, we will explore through readings, films, discussion and internet the troubling and complex topics of mass killing (massacre) and genocide in the modern world, both vexing issues that continue to plague us into the twenty-first century and that no doubt we will face into the foreseeable future. We will examine definitions of terms and the long-term historical context(s) for mass killing/genocide, then we will consider specific cases of mass killing and genocide worldwide.

#### **Prerequisites & Notes**

Course created in 2014 and backdated to 2010

Credits: 3

### **HIST 422 - Ancient Greece**

This course examines the history of ancient Greece, from the rise of its city-states to the Hellenistic world created by Alexander the Great's conquests. In addition to surveying major events, significant persons, and intellectual achievements, additional emphasis will be given to examining contributions to modern concepts of participatory government and intellectual constructs.

Credits: 3

### **HIST 423 - Ancient Rome**

This course examines the history of ancient Rome, from its origins ca. 800 BCE to its "fall" traditionally dated ca. 476 CE. In addition to surveying major events and significant persons during its Regnal, Republican and Imperial Periods,

emphasis will be given to examining Roman culture and political development as antecedents to modern institutions.

Credits: 3

### **HIST 424 - The Middle Ages**

This course investigates the major political, social, and intellectual developments of Western Europe during the Middle Ages, 500 to 1500.

Credits: 3

### **HIST 426 - French Revolution and Napoleon**

French political, social, and economic affairs in the 18th century, the French Enlightenment, the Revolution, and the Napoleonic period.

Credits: 3

### **HIST 427 - Nineteenth Century Europe**

From the Congress of Vienna to the outbreak of World War I, examining nationalism, liberalism, the response to industrialism, imperialism, the rise of the alliance system, and the breakdown of nineteenth century order.

Credits: 3

### **HIST 435 - Pennsylvania**

The founding and growth of Pennsylvania to the present.

Credits: 3

### **HIST 437 - The American West**

This course examines the history of diverse groups that have resided in the American West since the sixteenth century - Native Americans, Spanish, Mexicans, and citizens of the United States. Topics include the role of the United States government in the conquest, economic development, and administration of the West; the legacy of that conquest for native and immigrant peoples; the formation of distinctive Western communities; contest for access to natural resources and wealth; and the idea of the mythic frontier in American Culture.

Credits: 3

### **HIST 442 - Studies in U.S. Women's History**

An in-depth investigation into specific topics of women's studies through individual reading assignments and group discussions.

#### **Prerequisites & Notes**

3 credits in women's studies or permission of the instructor

Credits: 3

### **HIST 445 - Americans and the Environment**

This course surveys the environmental history of North American from pre-Columbian societies until the present, exploring how the environment has influenced America's social, political, economic and cultural development, as well as how human activity and ideas have shaped nature.

Credits: 3

### **HIST 450 - History Internship**

Supervised placement and research in selected public and private agencies at appropriate institutions.

Credits: 1-12

### **HIST 451 - U.S. Foreign Relations to 1890**

Foreign relations from the beginning of our national history to the era of imperialism and the Spanish-American War.

Credits: 3

### **HIST 452 - U.S. Foreign Relations Since 1890**

American foreign policy from the Spanish-American War to the present.

Credits: 3

### **HIST 453 - American Constitutional History and Law**

Federal constitution by the Supreme Court, including the growth of constitutional law and political, social, economic, and technological changes. May be used as a political science elective.

Credits: 3

### **HIST 454 - Research and Writing Seminar**

This class is designed to provide advanced history students with the opportunity to develop the research and writing skills of the historian. Student will produce a major paper based on research in primary sources.

#### **Prerequisites & Notes**

HIST205 and Upper Division Standing

Credits: 3

### **HIST 455 - Economic U.S. History**

American economic development, with emphasis on change and growth in commerce, industry, labor, finance, and governmental participation. May be used as an economics elective.

Credits: 3

## **HIST 462 - The Contemporary Middle East**

The economic, social, cultural, and political aspects of the Middle East in the perspective of the past.

Credits: 3

## **HIST 463 - Israel - History, State, and Society**

In this course, we will examine the following topics: the development of Zionism and the circumstances in the Jewish Diaspora that led to the call for a "Jewish" state; the British Mandate for Palestine, 1920-1948; the establishment of Israel; Israeli state and society, 1948 to present; and Israel within the broader context of the modern Middle East.

Credits: 3

## **HIST 490 - Independent Study**

For history majors or advanced students with a background in history. Prerequisites: GPA of 2.750 in history and permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

## **HIST 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-3

## **HIST 498 - Selected Topics**

Selected topics such as JFK assassination and history and film are offered on a rotational basis as staffing allows.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

## **HLTH 100 - Introduction to Health Careers**

Provides students with an understanding of various career opportunities in health and safety occupations and the opportunity to determine whether their needs, interests, abilities, and values are suited to careers in their area.

Credits: 3

## **HLTH 101 - Personal Health**

Addresses concerns pertaining to college living and life-long health. Emphasizes wellness with its emotional, physical, and social components.

Credits: 3

### **HLTH 102 - Health Appraisal and Promotion**

Discusses the role of wellness in health promotion. Identifies major health risks and examines primary prevention strategies utilizing select health appraisal instruments for the promotion of optimal individual and community health. Exposes students to agencies, which serve as resources for health information.

#### **Prerequisites & Notes**

For community health, exercise science, physical education and school health majors only or by permission of the instructor. Freshman or sophomore standing only

Credits: 3

### **HLTH 103 - Health and Behavior Change**

Examines the major health problems and health risks to determine feasible secondary and tertiary intervention strategies to maintain, promote and manage the highest possible level of individual and community health. Explores behaviors and circumstances that are barriers to seeking and/or adhering to medical advice.

#### **Prerequisites & Notes**

For community health, exercise science, physical education and school health majors only or by permission of the instructor. Freshman or sophomore standing only

Credits: 3

### **HLTH 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **HLTH 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **HLTH 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **HLTH 210 - Introduction to Public Health**

Provides a broad foundation of information related to the structure and functioning of the community health system including the identification and examination of programs, providers, and current problems associated with the delivery of health services.

Credits: 3

### **HLTH 211 - Women's Health Issues**

Examines the role of women as consumers and as both formal and informal providers of health services.

Credits: 3

### **HLTH 262 - Health Foundations**

Identifies and examines the major health problems at the individual and community level. Emphasizes health information and resources that can be used to deliver developmentally appropriate primary, secondary and tertiary education and/or interventions among diverse populations.

Credits: 3

### **HLTH 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **HLTH 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **HLTH 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **HLTH 301 - Introduction to Health Education**

Examines the knowledge and skills necessary to function effectively as a community, school, or worksite health educator. Emphasizes the responsibilities and competencies of the Certified Health Education Specialist.

#### **Prerequisites & Notes**

HLTH 103 and HLTH 210

Credits: 3

### **HLTH 309 - Introduction to the Study of Disease**



Provides a broad foundation of information related to the etiology, pathophysiological mechanisms, signs and symptoms, outcomes and current therapies for selected communicable, genetic, and chronic diseases.

**Prerequisites & Notes**

BIOL 216 and 217, or permission of the instructor

Credits: 3

**HLTH 310 - Environmental Health**

Explores the ecologic, economic, ethical, toxicologic and epidemiologic bases for environmental health both globally and within the community setting. Emphasizes the relationship between biological, physical and chemical agents and disease/injury causation and the role of government.

**Prerequisites & Notes**

CHEM 104 or 107 and BIOL 210 or permission of the instructor

Credits: 3

**HLTH 311 - International Health**

Examines significant health problems affecting populations in various areas of the world. Provides opportunities to understand approaches to health from different cultural perspectives and focuses on the integration of disease patterns in peoples within specific geographic areas. Emphasizes interdisciplinary perspectives on how cultural diversity relates to us and the world community.

**Prerequisites & Notes**

Junior standing

Credits: 3

**HLTH 312 - Data Management for Health Science**

Explores methods of data collection, manipulation and reporting for health science. Includes computer applications.

**Prerequisites & Notes**

MATH 152 or permission of the instructor. Basic computer literacy is recommended

Credits: 3

**HLTH 313 - Biostatistics**

Provides a broad foundation of knowledge related to data analysis in health science. Emphasizes the interpretation of health data and the computer skills for common statistical methods.

**Prerequisites & Notes**

HLTH 312

Credits: 3

**HLTH 314 - Nutrition and Health**

Examines basic scientific principles of nutrition, specifically all major nutrient classes in terms of functions, food sources, and adequate intakes along with sensitivity to diverse needs throughout the life cycle. Emphasizes interdisciplinary perspectives on how cultural diversity relates to food choices and how unique ethnic health challenges influence dietary needs.

Credits: 3

### **HLTH 316 - Human Sexuality**

Surveys a broad range of information about human sexuality from biological, psychological, sociological, religious, and medical perspectives.

Credits: 3

### **HLTH 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **HLTH 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **HLTH 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **HLTH 406 - Program Planning and Evaluation**

Provides basic proficiency in quantitative and qualitative approaches to health education and health promotion program measurement and evaluation. Current trends and issues in community, school and worksite health promotion are brought to bear on the problems of implementing and interpreting the results of formative and summative evaluation.

#### **Prerequisites & Notes**

HLTH 301 and senior standing or permission of the instructor

Credits: 3

### **HLTH 410 - Epidemiology**

Introduces the study of population-based research and statistical methods of inquiry regarding distribution and determination of disease in human populations. Emphasizes appropriate study design and investigative techniques and interpretation of findings related to community health.

#### **Prerequisites & Notes**

HLTH 313 Biostatistics or a statistics course approved by the instructor with permission of the instructor and senior standing

Credits: 3

### **HLTH 424 - Nutrition and Exercise**

Focuses on the specific nutritional requirement for physical conditioning for persons involved in competitive and/or recreational activities. Emphasizes the development and/or maintenance of a healthy cardiovascular system.

#### **Prerequisites & Notes**

HLTH 314

Credits: 3

### **HLTH 440 - Public Health Seminar**

This course is designed to provide a critical analysis of the major contemporary public health problems facing persons and communities. Content will also address professionalism and career advancement in the public health professions.

#### **Prerequisites & Notes**

Senior Standing

Credits: 3

### **HLTH 450 - Internship**

Provides opportunity to apply theory and develop competencies through a work-related experience in an appropriate cooperating enterprise. Summers only.

#### **Prerequisites & Notes**

Program/major specified requirements and/or approval of instructor

Credits: Up to 12

### **HLTH 455 - Student Teaching - Health Science**

Under the guidance of a cooperating teacher and university supervisor, students engage in two, eight week assignments on a full-time basis in specified school districts and attend scheduled seminars. Supervisors assign additional requirements.

Credits: 12, 6, 3

### **HLTH 490 - Independent Study**

Students study under the supervision of a professor on a specific and significant topic.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Credits: 1 to 6

### **HLTH 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **HLTH 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **HONR 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **HONR 195 - Workbook**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **HONR 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **HONR 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **HONR 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **HONR 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **HONR 385 - The Great Books**

Seminars on selected topics from the classic works of human thought.

Credits: 3

### **HONR 386 - The Great Books**

Seminars on selected topics from the classic works of human thought.

Credits: 3

### **HONR 387 - The Great Books**

Seminars on selected topics from the classic works of human thought.

Credits: 3

### **HONR 388 - The Great Books**

Seminars on selected topics from the classic works of human thought.

Credits: 3

### **HONR 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **HONR 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **HONR 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **HONR 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **HONR 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **HSA 231 - The US Healthcare System**

This course offers an overview of the U.S. healthcare delivery system, its policy makers, values, ethics, and other issues that confront it. It focuses on the ever-changing components of the healthcare system and on the technical, economic, political, ethical, and social forces responsible for those changes. The roles of governmental and professional agencies and organizations are presented. The organization and delivery of healthcare services in all its settings are also covered. Opportunities are provided to students for social awareness, civic responsibility, and personal development as these relate to the allocation and use of healthcare resources. This course equips the student to become an informed healthcare consumer and introduces them to healthcare as an option for employment. The course is open to all majors.

### **Prerequisites & Notes**

None

Credits: 3

## **HSA 332 - Health Services Planning and Evaluation**

Provides knowledge about comprehensive health planning, comparing concepts, models, and approaches.

### **Prerequisites & Notes**

ECON/MGMT 219 AND COMM 231 AND HSA 231 AND MRKT 330 AND PROF 250 OR MGMT 351

Credits: 3

## **HSA 335 - Current Topics in Health Care**

This course examines current topics in healthcare from the interests of various constituencies and organizations. It is designed to introduce students to the identification and study of current economic, regulatory, or operational issues and emerging trends impacting the healthcare industry. Matters of healthcare policy, healthcare reform, current clinical and non-clinical healthcare developments, policy process, and advocacy will also be examined. The course presents a critical analysis of selected topics of interest to the health services management major as well as other students interested in healthcare.

### **Prerequisites & Notes**

This course is open to all majors with junior standing.

Credits: 3

### **HSA 436 - Technology in Health Care**

This course is designed to provide an understanding of common computer systems, applications, and the intelligent use of information in healthcare in areas such as: patient care, management, administration, strategic-decision support, and e-health. It presents information on hardware, software, networks, and data management to enable students to become conversant with modern technology and its use in healthcare organizations. Emphasis is placed on strategic planning, decision support, continuous quality improvement, and high-quality patient care.

#### **Prerequisites & Notes**

CPSC 210; HSA 231; CPSC 323

Credits: 3

### **HSA 437 - Financial Management of Healthcare Organizations**

This course is designed to enrich the student's understanding of common financial management and reimbursement strategies used in profit and not-for-profit healthcare organizations. It will expose students to various techniques necessary to equip them with practical skills to manage finances in a variety of healthcare settings such as: acute, longterm, and ambulatory care.

#### **Prerequisites & Notes**

HSA 231, PROF 205

Credits: 3

### **HSA 439 - The Accreditation and Survey Process**

Focuses on the role, responsibilities, standards, and requirements involved in accrediting and licensing surveys for health care organizations.

#### **Prerequisites & Notes**

HSA 231; PROF 250 OR MGMT 351; MRKT 330; ACCT 340

Credits: 3

### **HSA 450 - Internship in Health Services Administration**

Provides the student with an opportunity to apply theory to practice and develop competencies through a work-related experience in a profit, or not-for-profit healthcare organization.

#### **Prerequisites & Notes**

Completion of all Health Services Administration Courses and approval of professor.

Credits: 12

### **INDS 101 - FYRST Seminar**

The FYRST Seminar provides students with an opportunity to become integrated into the university's community of learners by exploring the purpose and value of higher education, participating in the teaching/learning process, addressing academic and social transition issues, utilizing campus programs, services, and technology, and developing academic skills and learning strategies during the student's first semester at Slippery Rock University. This course is a one credit hour course designed to especially and exclusively assist first year students in their adjustment to college life at Slippery Rock University. No prerequisite. Enrollment by advisement. Open to first year students only. The credit earned in this course counts for graduation requirements.

Credits: 1

### **INDS 102 - Learning Strategies**

Students will develop effective learning strategies, goals, and decision-making skills with a view toward implementing a plan to remove their probationary status and become a student in "good academic standing." This course is primarily for students on academic probation (other students may enroll with the permission of the instructor). Credits earned count for graduation as an elective.

Credits: 1

### **INDS 103 - Major and Career Exploration**

This course will examine various decision making models as they are applied to choosing an academic major and/or career. Through a variety of in-class and out-of-class activities students will integrate self-knowledge and knowledge about majors and the world of work.

Credits: 1

### **INDS 110 - Research.com**

A self-paced course introducing the resources of the university library. Students will select and use print and non-print materials on assigned subjects as preparation for future library research in various disciplines. Should be scheduled after the completion of any remedial English or communication course. For course information contact the library.

Credits: 1

### **INDS 121 - Freshman Research and Mentoring Experience**

The FRAME Seminar introduces students to academic research skills. Students will collaborate with faculty mentors, peers and professionals to develop skills in methodologies, analyses and dissemination of scholarly work. The seminar course is intended for second semester freshman.

Credits: 1

### **ITAL 101 - Italian Language and Culture I**

A broad and practical working foundation in the language.

Credits: 3

### **ITAL 102 - Italian Language and Culture II**



A broad and practical working foundation in the language.

**Prerequisites & Notes**

ITAL 101 or equivalent

Credits: 3

**ITAL 103 - Italian Language and Culture III**

A broad and practical working foundation in the language.

**Prerequisites & Notes**

ITAL 102 or equivalent

Credits: 3

**ITAL 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

**ITAL 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**ITAL 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

**ITAL 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

**ITAL 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **ITAL 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **ITAL 490 - Independent Study**

Students have an opportunity to study selected areas in greater concentration.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

### **JAPN 101 - Japanese Language and Culture I**

This course is the first in a three course series which will provide an introduction to the Japanese language.

Credits: 3

### **JAPN 102 - Japanese Language and Culture II**

This course is the second in a three course series which will provide an introduction to the Japanese language.

#### **Prerequisites & Notes**

JAPN 101 or equivalent

Credits: 3

### **JAPN 103 - Japanese Language and Culture III**

This course is the third in a three course series which will provide an introduction to the Japanese language.

#### **Prerequisites & Notes**

JAPN 102 or equivalent

Credits: 3

### **JAPN 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **JAPN 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **JAPN 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **JAPN 202 - Intermediate Japanese I**

Comprehensive review of Japanese language with emphasis on developing the students’ abilities for proficient oral and written accomplishments.

#### **Prerequisites & Notes**

JAPN 103 or equivalent.

Credits: 3

### **JAPN 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **JAPN 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **JAPN 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **JAPN 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **JAPN 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **JAPN 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **JAPN 490 - Independent Study**

Students have an opportunity to study selected areas in greater concentration. The nature of the topic is selected and its treatment are determined in consultation with the instructor.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university’s traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Credits: 1-3

### **JAPN 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **JAPN 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **KORN 101 - Korean Language and Culture I**

This course is the first in a three course series which will provide an introduction to the Korean language.

Credits: 3

### **KORN 102 - Korean Language and Culture II**

This course is the second in a three course series which will provide an introduction to the Korean language.

#### **Prerequisites & Notes**

KORN 101 or equivalent

Credits: 3

### **KORN 103 - Korean Language and Culture III**

This course is the third in a three course series which will provide an introduction to the Korean language.

#### **Prerequisites & Notes**

KORN 102 or equivalent

Credits: 3

### **KORN 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **KORN 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **KORN 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **KORN 202 - Intermediate Korean I**

Comprehensive review of Korean grammar with emphasis on developing the students' abilities for proficient oral and written accomplishments.

#### **Prerequisites & Notes**

KORN 103 or equivalent

Credits: 3

### **KORN 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **KORN 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **KORN 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **KORN 306 - Modern Korean Civilization**

Course analyzes the most significant characteristics, foreign influences, and cultural traditions that have comprised Korean culture since 1900. Course will be taught in English and is open to all interested students.

Credits: 3

### **KORN 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **KORN 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **KORN 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **KORN 490 - Independent Study**

Students have an opportunity to study selected areas in greater concentration. The nature of the topic selected and its treatment are determined in consultation with the instructor.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Credits: 1-3

### **KORN 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **KORN 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **MARS 110 - Introduction to Oceanography**

An introduction to marine sciences with emphasis on physiography of the ocean basins, waves, tides, near-shore processes, the physical and chemical nature of seawater, circulation, characteristics of marine plant and animal communities, history of oceanography, and law of the sea.

Credits: 3

### **MARS 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **MARS 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MARS 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MARS 200 - Art Workshop-Painting of the Coastal Area**

This workshop is to be an intensive involvement with the esthetic qualities of the seashore and its environs. Paintings using various media (watercolor, oils, acrylics) according to personal preference will be created. Slides and other reproductions of relevant paintings by artists of historical importance will be examined and discussed.

Credits: 3

### **MARS 201 - Art Workshop-Pewter and Marine Jewelry**



This workshop will explore pewter and objects found in the near-shore environment as materials for making jewelry and body ornaments. Participants will learn techniques of casting, fabricating, soldering, tinning and bezel setting for the purpose of creating unique pieces.

Credits: 3

### **MARS 204 - Writing about the Sea**

A survey of literature from several genre, both fiction and nonfiction, which focuses on maritime themes and topics.

Credits: 3

### **MARS 211 - Field Methods in Oceanography**

A course to familiarize students with the dynamic marine environment and field work on board small research vessels, to instruct in the use and application of standard oceanographic instruments and sampling devices and to promote and encourage independent research through the initial stages of scientific projects.

#### **Prerequisites & Notes**

MARS 110 or permission of the instructor

Credits: 3

### **MARS 212 - Navigation**

This course covers navigation, i.e. the art and science of safely bringing a boat from one position to another in a body of water. Topics covered are piloting, navigation within sight of land, electronic navigation, radio bearings by radio direction finder, LORAN, OMEGA, radar, celestial navigation, circles of equal altitude, navigational triangle, celestial lines of position, celestial fix, Greenwich Mean Time, Greenwich Hour Angle.

#### **Prerequisites & Notes**

Four years of high school math or permission of the instructor

Credits: 3

### **MARS 215 - Marine Wildlife Photography**

This class includes an in-depth study of the science of photography and how this relates to the field work of marine biology. The student will develop skills in micro- and macrophotography and an understanding of the science of optics, filter and camera techniques, and darkroom procedures and techniques. The class will learn various chemical processes for color and black/white photography. Specific articles on marine science photography will be used to develop an understanding both within the marine science laboratory and in the field.

#### **Prerequisites & Notes**

A chemistry or biology or related laboratory course

Credits: 3

### **MARS 221 - Marine Invertebrates**

A study of the invertebrate phyla with emphasis on development, reproduction, structure, function and classification of selected marine organisms. Laboratory field experience will be given in collection, preservation and classification of the phyla.

**Prerequisites & Notes**

One year of biology or permission of the instructor

Credits: 3

**MARS 241 - Marine Biology**

A study of plant and animal life in the marine environment. Emphasis will be on physical and chemical environmental factors affecting the biota in the inter-tidal, open water, and benthic habitats. Common biota characteristic of each habitat will be investigated in terms of their natural history, morphology, and ecological relationships.

**Prerequisites & Notes**

One semester of biology or permission of the instructor

Credits: 3

**MARS 250 - Wetland Ecology**

The ecology and management of wetland wildlife with emphasis on the management of wetlands as ecological systems.

Credits: 3

**MARS 260 - Marine Ecology**

A study of the ecology of marine organisms, the relationship of plants and animals to physical, chemical and biological factors and their zonation and communities.

**Prerequisites & Notes**

One year of biology or permission of the instructor

Credits: 3

**MARS 270 - Coastal Vegetation**

In-depth examination of vegetation falling under the marine influence. Identification of same and determination of factors limiting and controlling their distribution.

Credits: 3

**MARS 280 - Field Biology**

An introduction to basic principles of ecology and natural history of selected plants and animals in terrestrial, freshwater, and marine environments. Course is suitable for non-science majors.

Credits: 3

**MARS 285 - Recreation Management/Development in the Coastal Zone**

This course focuses on the recreation component of coastal zone management. The nature, extent, location, and value of coastal recreation behavior will be probed and related to the overall coastal management framework.

Credits: 3

### **MARS 290 - Experiment**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **MARS 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MARS 298 - Selected Topics**

An opportunity for intensive study on a specific topic of interest. Course duration from 1 to 3 weeks.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

Variable, depending on the topic

Credits: 1 to 3

### **MARS 300 - Behavior of Marine Organisms**

Concepts of ethology; discussion and observation of the influences of external and internal factors on the regulation and control of behavior of organisms living in the marine coastal environment.

#### **Prerequisites & Notes**

General Biology

Credits: 3

### **MARS 310 - The Mammals of Coastal Ecosystems**

Distribution, behavior, physiology, adaptations, and ecological relationships of mammals with special emphasis on the mammals of the Delmarva Peninsula. In addition to the lectures and seminars, the laboratory and field work will deal with the productivity, population dynamics, species diversity, ecoenergetics, and behavior of local mammals.

#### **Prerequisites & Notes**

General Biology

Credits: 3

## **MARS 320 - Marine Microbiology**

A survey of methods and concepts of marine microbiology. Attention will be given to technical aspects of sample collection, microbial ecology of the marine environment, enrichment culturing, methods of enumeration and identification with emphasis on marine bacteria.

### **Prerequisites & Notes**

General Microbiology

Credits: 3

## **MARS 330 - Tropical Invertebrates**

An introduction to tropical invertebrates. A variety of collection and observation methods will be used to sample near-shore and reef areas. Emphasis will be on systematics and ecology using the communities approach. One week at Wallops will be intensive review of general systematics and ecology of marine invertebrates. The last two weeks in Florida will involve sampling and identifying species and describing ecological communities.

### **Prerequisites & Notes**

Marine Invertebrates, Invertebrate Zoology or a thorough Zoology course with permission of the instructor

Credits: 3

## **MARS 331 - Chemical Oceanography**

Treatment of a wide range of oceanic chemical phenomena, including salinity and age of the oceans, sources and residence times of chemical constituents in seawater, geochemical cycles of mineral resources and trace elements. Sampling and laboratory analysis techniques.

### **Prerequisites & Notes**

MARS 110 and one year of Chemistry or permission of the instructor

Credits: 3

## **MARS 342 - Marine Botany**

A study of marine and marine fringe plants of the Middle Atlantic Coast, their taxonomy, ecology, distribution, life histories, physiology, and economic status. Techniques of collecting, preserving, identifying and herbarium cataloging will be stressed. Exercises in plant ecology and marine microbiology will be included.

### **Prerequisites & Notes**

A course in General Biology and/or one semester of Botany or permission of the instructor

Credits: 3

## **MARS 343 - Marine Ichthyology**

A study of the fishes. Specimens collected along the eastern seaboard by the students will be used to illustrate the anatomy, physiology and systematics of this major vertebrate group. Field collections will also give students the opportunity to observe the relationships of these animals to their biotic and physical environment.

**Prerequisites & Notes**

General Biology and/or permission of the instructor

Credits: 3

**MARS 344 - Anatomy of Marine Chordates**

A course designed to familiarize the students with the qualitative aspects of the speciation process; to lay ground work for understanding the basic and specialized structure of marine chordates; to trace the most obvious or important trends (and their functional significance) in the evolution of this basic structure in various vertebrate lines. The laboratories will be devoted primarily to dissection of representative marine vertebrates, particularly those collected live on field trips.

**Prerequisites & Notes**

Six credits of Biology, including General Zoology

Credits: 3

**MARS 345 - Ornithology**

Introduces the student to avian fauna of the seacoast and at the same time enables comparison with inland species. In addition to the field work providing visual and vocal identification, lecture material will include information on the distribution, behavior, physiology, and anatomy of birds.

**Prerequisites & Notes**

One year of biology or permission of the instructor

Credits: 3

**MARS 350 - Physiology of Marine Invertebrates**

Mechanisms and regulation of organ function in marine invertebrates with emphasis on homeostasis. Invertebrate examples of fundamental principles and of unique physiological mechanisms.

**Prerequisites & Notes**

Introductory Biology

Credits: 3

**MARS 362 - Marine Geology**

Structure and sedimentology of the ocean basins and shores; methods of exploration, general feature of the ocean basins, and theory of ocean basin evolution.

**Prerequisites & Notes**

MARS 110 and one semester of Geology or permission of the instructor

Credits: 3

**MARS 364 - Physical Oceanography**

A study of the physical properties of the oceans to include: mass and energy budgets; theory of distribution of variables; cause, nature, measurement, analysis and prediction of tides, currents and waves; basic instrumentation in field work.

**Prerequisites & Notes**

Introductory Oceanography, one year of Physics, Algebra and Trigonometry and one semester of Calculus or permission of the instructor

Credits: 3

**MARS 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**MARS 394 - Comparative Physiology of Marine Organisms**

This course will provide an introduction to the physiology of marine organisms utilizing a comparative approach. The lecture will introduce the topics of respiration, circulation, metabolism, osmoregulation, thermoregulation, locomotion and sensory systems by drawing comparisons between the mechanisms and strategies utilized by a wide range of marine organisms. Laboratory and field work will focus on the physiological responses of marine plants and animals to common environmental stresses such as salt load, temperature variation, depletion of dissolved oxygen, and tidal flux. This will be accomplished through measurements and observations in the field, as well as through experimental manipulations in a laboratory setting.

Credits: 3

**MARS 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**MARS 398 - Developmental Biology of Marine Organisms**

Principles of development and differentiation in marine organisms at the molecular and supramolecular levels of organization. The laboratory will include both descriptive and experimental embryology.

**Prerequisites & Notes**

Introductory Biology

Credits: 3

**MARS 420 - Marine Micropaleontology**

Designed for students majoring in either biological or geological sciences, the course will deal with modern, living representatives of micro-organisms important in the fossil record. Particular emphasis will be on the taxonomy, morphology, evolution and ecological affinities of the Foraminifera (Sarcodina), but other groups, including the Radiolaria, Diatoms and Ostracoda, will also be considered. Laboratory and field aspects will include sample collecting, preparation and analysis.

**Prerequisites & Notes**

One year of Geology or Biology or permission of the instructor

Credits: 3

**MARS 431 - Ecology of Marine Plankton**

Study of the phytoplankton and zooplankton in marine and brackish environments. Qualitative and quantitative comparisons will be made between the planktonic populations of various types of habitats in relation to primary and secondary productivity.

**Prerequisites & Notes**

One year of Biology

Credits: 3

**MARS 432 - Marine Evolutionary**

The study of the ecological mechanisms underlying evolutionary processes. This course is broad in scope and requires that students synthesize both evolutionary and ecological concepts and theory into an understanding of how organisms adapt to their environment. Marine, estuarine, and maritime organisms will be used as model systems and processes, which affect marine populations, will be emphasized.

Credits: 3

**MARS 441 - Biology of Molluscs**

The Mollusca is the second largest group of animals and perhaps the most diverse in terms of morphological, ecological and behavioral variations. This course offers an evolutionary, functional, and ecologic approach to studying this important group of organisms.

Credits: 3

**MARS 451 - Coastal Environmental Oceanography**

This course examines the interaction of biological, chemical, physical, geological and ecological ocean processes as applied to coastal environments. Emphasis is placed on environmental management issues of the coastal zone. Topics include water quality analysis, barrier island geology and ecology, estuarine pollution, beach defense and biological implications in areas of coastal up welling and coastal fronts. Specific cases in coastal pollution will be examined from coastal environments around the U.S., including Kepone in the James River, VA, DDT on the Palos Verde Shelf, CA., Eutrophication on the North Carolina Coast, The Exxon-Valdex Oil spill and Pfsteria in the coastal waters of N.C. and VA. Cross listed as MARS551.

**Prerequisites & Notes**

MARS 110

Credits: 3

### **MARS 457 - Marine Geophysics**

A study of the basic geophysical theories about the transmission of shock waves, and gravity and magnetic fields to the understanding and exploration of the continental shelves and marine basins. The student is introduced to the use and limitations of the portable seismic refraction seismograph, gravity meter, and magnetometer.

#### **Prerequisites & Notes**

Oceanography, Physical Geology, College Algebra or permission of the instructor

Credits: 3

### **MARS 458 - Exploration Methods in Marine Geology**

A study of geophysical and geologic instruments and techniques used to penetrate the water layer obscuring the ocean bottom topography and geology and the results of some of that effort. Emphasis is on laboratory and field assignments using basic geophysical and geological instruments. The students are introduced to the use, limitations and results of these instruments.

#### **Prerequisites & Notes**

Physical Geology and one year of Math or permission of the instructor

Credits: 3

### **MARS 459 - Coastal Geomorphology**

A study of coastal environments with an emphasis on understanding the inter-relationship among land forms, processes and materials. The student will participate in field studies conducted along high and low wave energy environments.

#### **Prerequisites & Notes**

One year of Geology or Physical Geography (landforms) or permission of the instructor

Credits: 3

### **MARS 464 - Biological Oceanography**

Interdisciplinary study of the interactions between biological communities and the ocean environment as seen by distributions of coastal plankton, fish, and benthic invertebrates. Projects will involve boat trips to sample populations and to quantitatively document environmental variables with state of the art equipment, laboratory and field experiments to determine rate processes, and visits to nearby field and government laboratories. Examples of project topics include transport of plankton at barrier island passes, effect of submarine banks on fish populations, ground truth data for satellite imagery, and other current topics in biological oceanography.

Credits: 3

### **MARS 491 - Coral Reef Ecology**

A study of coral reef structure, formation, types, and the relationships of reef organisms to their environment. Emphasis is given to species diversity, identification, symbioses, and effects of temperature, salinity, light, nutrient concentration,



predation, and competition on the abundance and the distribution of coral reef organisms.

Credits: 3

### **MARS 492 - Marine Mammals**

A study of the distribution, population ecology, behavior, physiology and adaptations of marine mammals. Student projects will entail collecting physiological and behavioral data at field sites and at facilities studying marine mammals.

Credits: 3

### **MARS 493 - Behavioral Ecology**

Designed to present animal behavior within an ecological and evolutionary context. Presents mathematical and theoretical framework of behavioral ecology. An in-depth exploration of the ways in which the behavior of animals is influenced by the environment, especially with regard to resource distribution.

Credits: 3

### **MARS 494 - Marine Aquaculture**

This course will include the theory and practice of raising organisms for food and for the aquarium trade. Techniques for raising economically important organisms from the egg stage to marketable size and their food supplies will be studied.

#### **Prerequisites & Notes**

Nine credits in Biology

Credits: 3

### **MARS 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MARS 498 - Selected Topics**

An opportunity of intensive study in a specific topic of interest. Course duration from 1 to 3 weeks.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

Variable, depending on the topic

Credits: 1 to 3

### **MARS 500 - Problems in Marine Science**

Graduate or undergraduate students after advanced registration in the course may complete the course requirements by either of the following options: Students may elect to take a 200-, 300-, or 400-level course in which they desire advanced work and complete, in addition to the regular course requirements, an approved project in the area under the direction of the instructor; or the student may do an independent research project. In order to be admitted to the latter option, students must submit a research proposal to the academic committee of the Marine Science Consortium. The proposal must include the scope and duration of the proposed research, equipment and facilities required, and a recommendation and approval from the academic advisor.

Credits: 3

### **MARS 510 - Oceanography (In-Service Teachers)**

An introductory course to familiarize teachers with the nature of the oceans and create an awareness of the interdisciplinary nature of oceanography. The teachers will have the opportunity to participate in field activities, develop skills in handling marine instruments, and perform investigative laboratory activities, which will enhance their effectiveness in classroom teaching of oceanography through personal experience.

Credits: 3

### **MARS 530 - Coastal Sedimentation**

Study of depositional environments of marine-dominated shorelines; their processes, sediments, sedimentary facies; models for recognizing ancient counterparts in rock record; and growth and development of barrier island-tidal deltas.

#### **Prerequisites & Notes**

Introductory course in Sedimentation or Marine Geology or permission of the instructor

Credits: 3

### **MARS 540 - Environmental Science Education**

A field-oriented approach to environmental education with special emphasis on coastal zones. Students will relate their own disciplines to education for quality environments. Consideration will be given to sources, facilities, methods, techniques and concepts used in environmental education.

Credits: 3

### **MARS 551 - Coastal Environment Oceanography**

This course examines the interaction of biological, chemical, physical, geological and ecological ocean processes as applied to coastal environments. Emphasis is placed on environmental management issues of the coastal zone. Topics include water quality analysis, barrier island geology and ecology, estuarine pollution, beach defense and biological implications in areas of coastal up welling and coastal fronts. Specific cases in coastal pollution will be examined from coastal environments around the U.S., including Kepone in the James River, VA, DDT on the Palos Verde Shelf, CA., Eutrophication on the North Carolina Coast, The Exxon-Valdex Oil spill and *Pfsteria* in the coastal waters of N.C. and VA. Cross listed as MARS451.

#### **Prerequisites & Notes**

MARS115

Credits: 3

### **MARS 555 - Ocean Resources**

This is an introductory course designed to emphasize the potential resources and the feasibilities of their exploitation. The role of ocean science and engineering in accomplishing this goal will be covered.

Credits: 3

### **MATH 113 - Mathematics as a Liberal Art**

A cultural enrichment course, which introduces topics and applications from different branches of mathematics.

#### **Prerequisites & Notes**

ACSD 110 or equivalent

Credits: 3

### **MATH 115 - Financial Mathematics**

Methods of solving problems arising from the growth of money through simple and compound interest. Savings accounts, loans, financing, mortgages, depreciation, bonds, pensions and life insurance are included.

#### **Prerequisites & Notes**

ACSD 110 or equivalent

Credits: 3

### **MATH 118 - Elementary Geometry**

A survey of Euclidean geometry and related elementary geometrical concepts. This course is not appropriate for those planning to teach geometry at the secondary level, but would be an excellent choice for those who will be teaching mathematics in the elementary school.

#### **Prerequisites & Notes**

ACSD 110 or equivalent

Credits: 3

### **MATH 120 - Intermediate Algebra**

Linear functions, equations, inequalities, polynomials, algebra of functions, rational exponents, quadratic equations and inequalities, systems of equations. Course is graded A,B,C, or NC.

#### **Prerequisites & Notes**

ACSD 110 or equivalent

Credits: 3

### **MATH 122 - Matrices and Linear Programming**

The algebra of matrices with applications in linear programming, algebraic and graphical solutions.

**Prerequisites & Notes**

MATH 120 or equivalent

Credits: 3

**MATH 123 - Introduction to Applied Calculus**

The course is compatible with the background and interests of students not majoring in the physical sciences or mathematics. The theorem-proof approach of differential calculus is replaced with the explanation-example approach. The course includes an introduction to exponential and logarithmic functions, limits, derivatives, maxima/minima, and Lagrange multipliers, and applications from business, economics, and finance. Problem-solving with mathematical software will also be emphasized.

**Prerequisites & Notes**

MATH 120 or MATH 125 or equivalent

Credits: 3

**MATH 125 - Precalculus**

A bridge between high school algebra and calculus involving polynomial, trigonometric, logarithmic, exponential functions, complex numbers, and the conic sections.

**Prerequisites & Notes**

MATH 120; or two years of high school algebra and appropriate placement score

Credits: 4

**MATH 131 - Discrete Mathematics**

Topics include propositional calculus, set theoretic concepts, relations and functions, mathematical induction, counting techniques, recursion, graphs and trees.

**Prerequisites & Notes**

MATH 125; or high school Trigonometry/Precalculus and appropriate placement score

Credits: 3

**MATH 152 - Elementary Statistics I**

Introduction to statistics: descriptive statistics, bivariate data, elementary probability, random variables, normal and binomial probability distributions, Central Limit Theorem, confidence intervals, and hypothesis Testing. MINITAB will be used.

**Prerequisites & Notes**

ACSD 110 or equivalent

Credits: 3

## **MATH 153 - Elementary Statistics II**

Review of Elementary Statistics I, confidence intervals and hypothesis testing of means, proportions, and standard deviations of two populations, nonparametric methods, multinomial experiments, linear regression and correlation, and one-way ANOVA. MINITAB will be used.

### **Prerequisites & Notes**

MATH 152 or equivalent

Credits: 3

## **MATH 180 - Introduction to Mathematical Software**

An introduction to the appropriate use of mathematical software with emphasis on problem solving. Topics will include mathematical concepts from calculus, linear algebra, and differential equations.

### **Prerequisites & Notes**

Co-requisites: MATH 225 (1 credit)

Credits: 1

## **MATH 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

## **MATH 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **MATH 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **MATH 210 - Elementary Mathematics I**

This course explores the development of the number system through the integers, using a problem solving approach. Emphasis on place-value and arithmetic operations is essential if these future teachers are to engage their students in higher levels of mathematics.

### **Prerequisites & Notes**

ACSD 110 or equivalent and Freshman II standing

Credits: 3

## **MATH 225 - Calculus I**

Limits, continuity. Differential calculus for algebraic and transcendental functions of one variable with applications. Introduction to integration.

### **Prerequisites & Notes**

A grade of C or higher in MATH 125; or high school Trigonometry/Precalculus and appropriate placement score

Credits: 4

## **MATH 230 - Calculus II**

Integral calculus for functions of one variable. Definite integrals, techniques of integration, and applications. Infinite series.

### **Prerequisites & Notes**

A grade of C or higher in MATH 225

Credits: 4

## **MATH 231 - Calculus III**

Differential and integral calculus for functions of several variables and vector fields.

### **Prerequisites & Notes**

A grade of C or higher in MATH 230

Credits: 4

## **MATH 235 - Modern Concepts of Mathematics**

Basic logic and set theory, and methods of proof, induction, relations and functions.

### **Prerequisites & Notes**

MATH 225, 131

Credits: 3

## **MATH 240 - Linear Algebra and Differential Equations**

Computational aspects of matrices, determinants, systems of linear equations, vector spaces, linear dependence, Wronskian, characteristic values, elementary differential equations, separable and exact equations, linear differential equations with constant coefficients.

### **Prerequisites & Notes**

MATH 230

Credits: 3

## **MATH 252 - Introduction to Statistical Modeling**

Linear correlation and regression, multiple regression, polynomial regression, analysis of variance, and time series. MINITAB will be used for data analysis.

**Prerequisites & Notes**

MATH 153 and either MATH 123 or 125

Credits: 3

**MATH 280 - Theory of Interest**

A rigorous, calculus based treatment of the Theory of Interest, including simple and compound interest, annuities, bonds, yield rates, amortization schedules and sinking funds, yield curves, and practical applications. This course is intended to prepare students for the Society of Actuaries examination on the theory of interest.

**Prerequisites & Notes**

MATH 230

Credits: 3

**MATH 281 - Actuarial Exam Preparation I**

The purpose of this course is to prepare students for The Society of Actuaries' (SOA) first professional examination. Topics will be selected from the SOA syllabus which currently includes general probability theory, univariate and multivariate probability distributions (discrete and continuous), applications involving insurance and risk analysis, and supporting topics from Calculus.

**Prerequisites & Notes**

Permission from instructor

Credits: 1

**MATH 282 - Actuarial Exam Preparation II**

The purpose of this course is to prepare students for The Society of Actuaries' (SOA) second professional examination. Topics will be selected from the SOA syllabus which currently includes time value of money, yield rates, methods of loan repayment, annuities, asset/liability management, immunization, duration, convexity, bonds, stocks, mutual funds, capital budgeting, short sales, spot and forward rates, options, derivatives, futures, and arbitrage.

**Prerequisites & Notes**

MATH280

Credits: 1

**MATH 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

## **MATH 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **MATH 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **MATH 301 - Differential Equations I**

First and second order differential equations, infinite series solutions, Laplace transforms, existence and uniqueness theorems.

### **Prerequisites & Notes**

MATH 240; Co-requisite: MATH 231

Credits: 3

## **MATH 302 - Differential Equations II**

A continuation of MATH 301. Systems of ordinary differential equations, non-linear systems and stability, partial differential equations.

### **Prerequisites & Notes**

MATH 301

Credits: 3

## **MATH 304 - Geometric Structures**

Finite and infinite axiomatic systems, including Euclidean and projective geometrics.

### **Prerequisites & Notes**

MATH 235

Credits: 3

## **MATH 309 - Linear Algebra**

Vector spaces, linear transformations, matrices, and determinants with applications.

### **Prerequisites & Notes**

MATH 240; Co-requisite: MATH 231

Credits: 3



## **MATH 310 - Elementary Mathematics II**

This course finishes exploring the development of the number system by looking at the rational and real numbers and then looks at measurement, statistics, and probability. This course will not count as an upper division course for mathematics majors.

### **Prerequisites & Notes**

MATH 210

Credits: 3

## **MATH 311 - Introduction to Operations Research**

Linear programming, transportation and assignment problems, branch and bound algorithm, simulation.

### **Prerequisites & Notes**

MATH 122 or 240

Credits: 3

## **MATH 313 - Introductory Analysis I**

Cardinality, topology of the real numbers, sequences and continuity of functions.

### **Prerequisites & Notes**

MATH 231, 235

Credits: 3

## **MATH 314 - Introductory Analysis II**

Differentiation, Mean Value Theorem, Integration, series (convergence, exponential, trigonometric functions).

### **Prerequisites & Notes**

MATH 313

Credits: 3

## **MATH 315 - Numerical Mathematics**

The mathematics of computation and approximation, interpolation, calculating the roots of equations, curve fitting linear systems, numerical differentiation and integration and error analysis.

### **Prerequisites & Notes**

Some competence in a computer language. Prerequisite MATH 240.

Credits: 3

## **MATH 320 - Theory of Numbers**

A study of the properties of natural numbers and number theoretic functions.

**Prerequisites & Notes**

MATH 235

Credits: 3

**MATH 325 - Abstract Algebra I**

An introduction to groups. Topics include integers mod  $n$ , cyclic groups, permutation groups, normal subgroups, isomorphisms, finite Abelian groups.

**Prerequisites & Notes**

MATH 235

Credits: 3

**MATH 326 - Abstract Algebra II**

An introduction to rings. Topics include integral domains, fields, polynomial rings.

**Prerequisites & Notes**

MATH 325

Credits: 3

**MATH 331 - Mathematical Methods of Physics**

Applications in physical science and engineering of the following: vector analysis, complex variables, Fourier and Laplace transforms, linear algebra, and some boundary value problems. Cross-linked as PHYS 331. This course may be counted as a physics course or as a mathematics course, but not both.

**Prerequisites & Notes**

PHYS 211 and MATH 240; Co-requisite: MATH 231

Credits: 3

**MATH 335 - Mathematical Modeling**

A general introduction to mathematical modeling involving optimization, dynamic and probabilistic models. Specific topics selected from dimensional analysis, optimization techniques, continuous and discrete modeling, stability analysis, linearization, eigenvalue methods, qualitative analysis, Markov chains, regression models, simulation techniques, and others as time permits.

**Prerequisites & Notes**

Math 231 and Math 240

Credits: 3

## **MATH 352 - Mathematical Statistics I**

An introduction to the mathematical foundations of probability theory including discrete and continuous probability distributions, random variables, mathematical expectation, momentuo, and moment generating functions.

### **Prerequisites & Notes**

MATH 230

Credits: 3

## **MATH 353 - Mathematical Statistics II**

Functions of random variables, sampling distributions, introduction to mathematical theory of statistical inference, including methods of moments, estimators, maximum likelihood estimators, sufficient statistics, interval estimates, and hypothesis testing.

### **Prerequisites & Notes**

MATH 352

Credits: 3

## **MATH 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

## **MATH 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **MATH 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **MATH 403 - Elementary Topology**

Topological properties of the real line.

### **Prerequisites & Notes**

MATH 309, 313

Credits: 3

## **MATH 406 - Intermediate Analysis**

Selected topics.

### **Prerequisites & Notes**

MATH 314

Credits: 3

## **MATH 407 - Complex Variables**

Complex numbers, analytic functions, complex integration, convergence of sequences and series, and applications.

### **Prerequisites & Notes**

MATH 313

Credits: 3

## **MATH 490 - Independent Study**

Supervised study in advanced area. Prerequisites: Two 300-level mathematics courses, a 3.000 GPA in major, permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

## **MATH 491 - Mathematics Seminar**

Designed to broaden the students' backgrounds by investigating topics in mathematics not usually taught in the regular curriculum. Students may elect to take course up to three times.

### **Prerequisites & Notes**

MATH 235 and one 300 or higher level math course or permission of the instructor

Credits: 1

## **MATH 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **MATH 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

### **MGMT 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only “basis and not as a permanent part of the department’s curriculum.

### **MGMT 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MGMT 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MGMT 219 - Business Statistics**

Probability and statistics in a business environment, encompassing descriptive statistics, probability theory, hypothesis testing, linear regression and correlation. Cross-listed as ECON 219.

#### **Prerequisites & Notes**

Algebraic proficiency and microcomputer proficiency.

Credits: 3

### **MGMT 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only “basis and not as a permanent part of the department’s curriculum.

### **MGMT 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MGMT 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **MGMT 320 - Operations Management I**

Operations strategy and competition, production systems and processes, decision analysis and graphical linear programming, quality management and process control, facility location and layout, work methods and measurement, inventory management and project evaluation review technique (PERT).

### **Prerequisites & Notes**

MGMT/ECON 219

Credits: 3

## **MGMT 341 - Organizational Leadership**

This course will include a combination of leadership theory, practice, and application to contemporary organizations. Major challenges will be discussed including the strengths and weaknesses of these firms and ways in which organizational effectiveness can be improved. We will discuss the inextricable relationship between leadership and diversity and the essential nature of a diverse workforce for maximum success through the empowerment of people. Concepts such as strategic thinking, self-leadership, change and globalization are included.

### **Prerequisites & Notes**

MGMT351 and junior standing

Credits: 3

## **MGMT 351 - Organizational Behavior**

Study of the satisfaction, motivation, learning, problem solving and growth of persons in organizational settings. Conceptual learning is combined with self-analysis in each area.

Credits: 3

## **MGMT 352 - Operations Management II**

Management science analysis and optimization techniques including linear programming, transportation algorithm, waiting line models, simulation processes, network models, materials requirement planning, and forecasting methods applied to a variety of business operations situations.

### **Prerequisites & Notes**

MGMT 320 and 351

Credits: 3

## **MGMT 353 - Development of Management Thought**

Contemporary management as the result of an evolutionary process involving the thoughts and writings of many famous management theoreticians and practitioners.

**Prerequisites & Notes**

MGMT 351

Credits: 3

**MGMT 354 - Human Resources Management**

A survey course emphasizing aspects of the basic processes of HRM including principles, policies, tools and techniques utilized in the human resource function in any organization. Managing human capital encompasses: recruiting, hiring, training, development, compensation and performance management. Managing individuals and groups that include a diversity of backgrounds throughout each function, are core human resource activities and are incorporated in this class through a variety of techniques.

**Prerequisites & Notes**

MGMT351

Credits: 3

**MGMT 357 - International Operations Management**

Issues critical to globalization of manufacturing operations including global planning and organization, comparison of operations, international operations strategy, managerial issues in global operations.

**Prerequisites & Notes**

MGMT 320 and 351

Credits: 3

**MGMT 360 - Total Quality Management**

Managerial and technological issues that are necessary to understand and implement quality assurance programs including human resource development, strategic planning, management information systems, cost effectiveness, implementation procedures and statistical quality control.

**Prerequisites & Notes**

MGMT 219 or MATH 152 and MGMT351 and MRKT330

Credits: 3

**MGMT 364 - Recruitment and Selection**

Components of an effective selection program including job analysis, employment testing, and selection interviews with emphasis on the legal issues and relevant federal regulations.

**Prerequisites & Notes**

MGMT 354

Credits: 3

**MGMT 365 - Management Information Systems**

Managerial and technological issues that are necessary to understand, establish, manage and use information systems in all functional areas of organizations.

**Prerequisites & Notes**

CPSC 210 and MGMT 351

Credits: 3

**MGMT 370 - Sustainable Entrepreneurship and Innovation**

This integrative course introduces students to issues related to sustainable new venture creation. It includes topics such as the importance of innovation and creativity in opportunity recognition and the design of sustainable business models, industry/market analysis, resource acquisition and disposition, assessing a venture's financial strength, and ethical legal issues. Students will learn the entrepreneurial process while acknowledging multiple stakeholders and addressing social, economic and environmental concerns.

**Prerequisites & Notes**

FIN 320; MGMT 351; MRKT 330 or permission of instructor

Credits: 3

**MGMT 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**MGMT 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**MGMT 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**MGMT 449 - Sustainable Management Internship**

Supervised placement, work, and research in selected public and private organizations.

**Prerequisites & Notes**

Application and permission of instructor.

Credits: 3

**MGMT 450 - Internship**



Supervised placement, work, and research in selected public and private organizations.

**Prerequisites & Notes**

Application and permission of the instructor

Credits: 3

**MGMT 451 - Employment Law**

This course covers the law as it applies to all aspects of the employer - employee relation, including union activity, discrimination, selection, testing and employment contracts.

**Prerequisites & Notes**

MGMT 351

Credits: 3

**MGMT 452 - Management-Labor Relations**

Modern industrial relations from the perspective of both management and labor, including the historical development of large-scale business and organized labor.

**Prerequisites & Notes**

MGMT 351

Credits: 3

**MGMT 453 - Collective Bargaining**

The major issues in the negotiation process: bargaining, public policy implications, impasse resolution, strikes, and legislation affecting collective bargaining.

**Prerequisites & Notes**

MGMT 351

Credits: 3

**MGMT 454 - Management Seminar**

Contemporary methods and theories of management are discussed in terms of current organizational practice.

**Prerequisites & Notes**

MGMT 320, 354 and senior standing

Credits: 3

**MGMT 455 - Compensation Management**

Rationale, composition and administration of employee reward systems considering both the internal organizational factors and external environmental factors. Contemporary issues such as comparable worth, CEO salaries, and the rising cost of benefits are included.

**Prerequisites & Notes**

MGMT 354

Credits: 3

**MGMT 456 - Management and Society**

This course will engage students in exploring the social, ethical, environmental, economic, and political/legal restraints on organizational decision-making that managers face today. Students will develop critical thinking, communication and managerial skills necessary to be effective in a business world, where multiple stakeholder interests must be addressed.

**Prerequisites & Notes**

MGMT 351

Credits: 3

**MGMT 457 - International Management**

Examination of environments, resources, strategies and models of managerial functions in international organizations.

**Prerequisites & Notes**

MGMT 351

Credits: 3

**MGMT 458 - Integrated Business Policy**

Integrated Business Policy uses a computerized business simulation as a learning tool to enhance student understanding of the interaction and influence of functional areas of business on an organization's strategy and policy. Course material presents the scope of management's ethical responsibilities and the organization's commitment to diversity.

**Prerequisites & Notes**

All courses in the business core plus Senior II or instructor permission

Credits: 3

**MGMT 459 - Sustainable Business Consulting**

In this course student teams engage in field-based consulting to analyze actual problem situations involving sustainability for regional businesses.

**Prerequisites & Notes**

Application and permission of the instructor

Credits: 3

**MGMT 460 - Training and Development**

Training and development as a human resource management function supporting organizational strategic planning including: training needs analysis, training program objectives, training methods, management and organization development methods, program evaluation and cost-benefit analysis, and training budgeting. Current trends in training and development will be covered including computer based training, competency based training and cross cultural training.

**Prerequisites & Notes**

MGMT 354

Credits: 3

**MGMT 465 - Management of Information Technology**

Management and specific technical concepts and techniques applied to the function of providing information technology services to the organization.

**Prerequisites & Notes**

MGMT 351, three credits of CPSC

Credits: 3

**MGMT 490 - Independent Study**

In-depth reading and/or research with the guidance of a faculty member in an area selected by the student.

Prerequisites: 12 credits in major courses, application, and permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

**MGMT 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**MGMT 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**MGMT 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **MGMT 595 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **MGMT 598 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **MODL 105 - Introduction to Asian Civilizations**

This course is an introductory, interdisciplinary course designed to give students a broad understanding of the geographic, historical and religious, cultural, artistic, social, political and economic forces that shape Asia. No prior knowledge is expected. This is a Liberal Studies, Global Community, Non-US course.

Credits: 3

### **MODL 151 - Self-Instructional Languages**

Self-Instruction in basic language is open to serious students with previous language background. The course is designed to develop the speaking, listening comprehension of the student on a basic level. Course may be repeated in each language up to a maximum of three credits. Not applicable for modern language requirement or liberal studies. Students may choose from any world languages not available in the regular offerings.

Credits: 3

### **MODL 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **MODL 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **MODL 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **MODL 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **MODL 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **MODL 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **MODL 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **MODL 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **MODL 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **MODL 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 3

### **MODL 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **MODL 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **MRKT 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **MRKT 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MRKT 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MRKT 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

### **MRKT 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MRKT 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MRKT 330 - Principles of Marketing**

An analytical overview of market decision-making including product, pricing, place, and promotional strategies considering the heterogeneity and diversity of customers and markets with respect to their demographic, geographic, psychographic, cultural, and behavioral characteristics.

Credits: 3

### **MRKT 331 - Distribution Management**

Principles, methods and problems relating to wholesaling, retailing and physical distribution management.

#### **Prerequisites & Notes**

MRKT 330

Credits: 3

### **MRKT 332 - Business Marketing**

A management perspective of the internal and external environments affecting the demand for industrial goods; marketing intelligence and control; and marketing strategy for product, service, channel, price, and promotional components.

#### **Prerequisites & Notes**

MRKT 330

Credits: 3

### **MRKT 333 - Consumer Behavior**

The buying process with emphasis on economic, social, cultural and psychological determinants of consumer choice.

#### **Prerequisites & Notes**

MRKT 330

Credits: 3

### **MRKT 334 - Advertising Management**

Management of advertising, including background, roles, planning, media strategy, message, testing, research, evaluation, and administration of advertising.

#### **Prerequisites & Notes**

MRKT 330

Credits: 3

### **MRKT 335 - Retail Management**

Store location and layout, retail personnel management, merchandising policies and control, and marketing strategy.

#### **Prerequisites & Notes**

MRKT 330 or permission of the instructor

Credits: 3

### **MRKT 336 - Sales Management**

Provides foundations of sales processes and management to prepare students for careers in selling or sales management.

#### **Prerequisites & Notes**

MRKT 330 or permission of the instructor

Credits: 3

### **MRKT 338 - E-Commerce**

The role, structure, organization, and use of the Internet as a channel of distribution to conduct electronic commerce.

#### **Prerequisites & Notes**

MRKT 330

Credits: 3



### **MRKT 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **MRKT 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MRKT 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MRKT 430 - Marketing Research**

Research methodology as a managerial tool used in problem solving and decision making in marketing.

#### **Prerequisites & Notes**

ECON 219 or MGMT 219, MRKT 330 and senior standing

Credits: 3

### **MRKT 431 - Marketing Seminar**

Advanced topics in marketing with emphasis on the analysis and solution of marketing problems.

#### **Prerequisites & Notes**

MGMT 320, MRKT 332, 333 and senior standing

Credits: 3

### **MRKT 437 - International Marketing**

The marketing issues of firms engaged in international business with emphasis on strategies for successful foreign market penetration.

#### **Prerequisites & Notes**

MRKT 330

Credits: 3

### **MRKT 450 - Internship**

Supervised placement, work, and research in selected public and private organizations.

**Prerequisites & Notes**

Application and permission of the instructor

Credits: 3

**MRKT 490 - Independent Study**

In-depth reading and/or research with the guidance of a faculty member in an area selected by the student. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

12 credits of major courses, application, permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

**MRKT 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**MRKT 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**MRKT 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

**MRKT 595 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**MRKT 598 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **MS 100 - The American Military Experience**

Establishes a framework of reference regarding military service, an understanding of the profession of arms and its impact on and place in American society. The course begins the Army's leadership development process. Includes a lab. ++

#### **Prerequisites & Notes**

None. Fills a Liberal Studies requirement as a Human Institutions & Personal Relationships Enrichment Course.

Credits: 3

### **MS 102 - Principles of Leadership**

This course continues the student's introduction to the military organization and begins to teach leadership techniques and principles using military situations as a point of reference. Various academic studies of civilian-based leadership theories and styles are examined and compared to military theories and styles. Includes a lab. ++

Credits: 3

### **MS 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **MS 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MS 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MS 201 - Basic Military Skills**

Begins to teach basic military skills such as map reading, land navigation using a map and compass, first aid, weapons marksmanship, drill and small unit tactics. Includes a lab. ++

Credits: 3

### **MS 202 - Intermediate Military Skills**

Continues instruction in map reading, land navigation using a map and compass, first aid, weapons marksmanship, drill and small unit tactics. Begins to integrate all skills into leading small units in tactical situations. Includes a lab. ++

Credits: 3

### **MS 209 - Evolution of Modern Military Art**

A survey of the development of all branches of the American military spanning the colonial period to present day, this course includes a brief introduction to the development of the western way of war from pre-Hellenistic conflict through the Middle Ages in Europe. Technological innovation, evolution of tactical through strategic levels of warfare, and the symbiotic relationship between military development, national policy, and societal expectations will be examined.

Credits: 3

### **MS 250 - ROTC Basic Leadership Practicum**

A five week experience of training and evaluation conducted in a tactical framework at Fort Knox, Kentucky. Students learn basic military skills which enable them to take advanced military science courses on campus.

#### **Prerequisites & Notes**

Permission of the department chair required to take this course

Credits: 3

### **MS 280 - Leadership Seminar**

This course involves individualized instruction, research and presentation on research in areas required to fill in a students knowledge base to be able to move into the ROTC advanced course. This course may be taken only once.

#### **Prerequisites & Notes**

3.0 GPA in military science studies, permission of the instructor, department chairperson and dean of the college

Credits: 3

### **MS 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **MS 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MS 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MS 301 - Fundamentals of Tactical Operations**

Focuses on tactics at the squad level. Students learn the troop leading procedures and how to give both oral and written operations orders. Students continue to enhance their skills at land navigation and rifle marksmanship. Physical fitness conditioning is a mandatory part of the laboratory. Includes a lab. ++

#### **Prerequisites & Notes**

Permission of the department chair required to take this course

Credits: 4

### **MS 302 - Advanced Military Skills**

Continues development of intermediate level cadet leader skills in preparation for attendance at the Leadership Development and Assessment Course at Ft. Lewis, Washington. The course is supplementary in scope and includes leadership, written and oral communications, operations and tactics, land navigation, weapons, and radio and wire communications subjects. A laboratory experience is required.++

#### **Prerequisites & Notes**

Permission of the department chair required to take this course

Credits: 4

### **MS 350 - ROTC Advanced Leadership Practicum**

A five week experience of training and evaluation conducted in a tactical framework at Fort Lewis, Washington. Cadets demonstrate and learn advanced military skills. Cadets also demonstrate their leadership skills in a variety of leadership positions in tactical and non-tactical environments.

Credits: 3

### **MS 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **MS 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MS 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MS 401 - Leadership Dimensions and Concepts**

This course begins the transition from cadet to officer. Focus is on organization of the Army, command and staff functions, officer and noncommissioned officer evaluation system, military law and development of training. Students participate in a staff ride to a significant military battlefield. Includes a lab. ++

#### **Prerequisites & Notes**

Permission of the department chair required to take this course

Credits: 4

### **MS 402 - Officership and the Profession of Arms**

This course continues the transition from cadet to officer. Students begin a critical analysis of the role of the officer and the noncommissioned officer, and their interaction, at the platoon, company and battalion level. Students are introduced to joint operations and conduct some critical analysis of national military policy. Includes a lab. ++

#### **Prerequisites & Notes**

Permission of the department chair required to take this course

Credits: 4

### **MS 450 - The Cadet Troop Leadership Internship**

A three-week experience as a leader in a U.S. Army unit, under the close supervision of a U.S. Army lieutenant or captain. It gives the student the opportunity to lead real soldiers in a real U.S. Army unit. The intern will actually supervise the planning and execution of the unit's scheduled training.

#### **Prerequisites & Notes**

MS 301, 302, 350 and professor of military science permission

Credits: 3

### **MS 490 - Independent Study**

In-depth reading and research in an area of particular interest to the student with the guidance of an individual faculty member. This course may be taken only once.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

3.000 GPA in military science studies, permission of the instructor, department chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

### **MS 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MS 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MUSI 101 - Introduction to Music**

A survey course designed to develop the student perception and understanding of changing musical styles and practices in Western culture.

Credits: 3

### **MUSI 102 - Introduction to World Music**

A course designed to survey non-Western musical traditions and practices. Emphasis is given to the music of India, Russia, Japan, Africa, the Middle East, and the American Indian.

Credits: 3

### **MUSI 104 - Introduction to American Music**

A survey course designed to develop student knowledge and understanding of music composed and performed in the United States between 1620 and the present.

Credits: 3

### **MUSI 105 - Jazz**

The stylistic development of jazz and its relevance to society.

Credits: 3

### **MUSI 106 - Introduction to Jazz Performance**

This course will introduce the high school music student to jazz pedagogy at the university level. Emphasis will be placed on performing skills, theory, improvisation, ear training and music technology. Course may be repeated up to four credits.

#### **Prerequisites & Notes**

Proficiency on a musical instrument or voice

Credits: 3

### **MUSI 107 - Fundamentals of Music**

Understanding and using music notation and terminology.

Credits: 3

### **MUSI 108 - Flute Camp**

The SRU "Flute Camp" will give high school flutists an opportunity to be on the SRU campus during the Summer Arts Academy for an intensive 2 week program involving all aspects of flute performance. Follow up involvement of the high school students during the fall semester will consist of their attendance at flute related university events and critical writing about the concerts/rehearsals/master classes they observed during the fall component.

Credits: 1

### **MUSI 109 - Jazz Combo**

Students will meet weekly with the appropriate faculty member to work on jazz performance in the small group (combo) setting. Study of phrasing, articulation, jazz theory, improvisation, and other jazz performance practices will be addressed. Students will be auditioned at the beginning of the semester for placement. At least one public performance will be given per semester. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 111 - Introduction to Music Education (begins Fall 2013)**

This course is designed to introduce the student to the field of music education. The course will be an introduction to planning and preparation for teaching music, creating an effective classroom environment for teaching music, instructional delivery in music, historical background relevant to music education, copyright laws in the music classroom, instructional planning, and advocacy. Students will prepare to complete their observation hours in the schools, begin creating their portfolio, and write an initial philosophy of music education.

Credits: 1

### **MUSI 113 - Saxophone Quartet**

Students will meet weekly with the appropriate faculty member to work on literature selected for their performance ability level. Study of phrasing, articulation, balance, blend, intonation, and other performance practices will be addressed. Students will be auditioned at the beginning of the semester for placement. At least one public performance will be given per semester. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 114 - Symphonic Wind Ensemble**

A chamber ensemble composed of select musicians chosen by audition, performing contemporary literature as well as transcriptions for winds and percussion. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.



**Prerequisites & Notes**

Audition with the director of the Symphonic Wind Ensemble and the instrumental faculty

Credits: 1

**MUSI 115 - Concert Choir**

Approximately 50 men and women, chosen by audition, to study and perform the great choral literature from the Renaissance to the present. Concerts are presented on campus and on tours. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

**MUSI 116 - Choral Ensemble**

A large ensemble chosen by audition to study and perform the great choral literature. Two and one-half hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

**MUSI 117 - Chamber Singers**

A selected small ensemble of well-blended voices appropriate for the performance of madrigals and other chamber vocal music. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

**MUSI 118 - Marching Pride**

The Marching Pride performs during the half time at football games, both home and away, and for other special events. Much of its music is specially arranged. Open to all students. Six hours a week rehearsal during the football season. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

**MUSI 119 - Concert Band**

The Concert Band members are carefully selected to provide a balanced instrumentation of the best players. Music written for concert band is the main repertoire. Concerts on campus. Six hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 120 - Jazz Ensemble**

The SRU Jazz Ensemble performs jazz literature from all eras of jazz history including big band, bop, hard bop, fusion and contemporary. This ensemble often performs with guest artists of national and international stature, both on and off campus. Membership in this ensemble requires an audition. Four and one-half hours of rehearsal per week. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 121 - Orchestra**

The orchestra is a string ensemble, with winds and percussion added when needed, which performs music from the orchestral repertoire. Admission by audition. Two and one-half hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 122 - Chamber String Ensemble**

The Chamber String Ensemble is a small ensemble selected for the study and performance of chamber music written for strings. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 123 - Brass Ensemble**

The university's Brass Ensemble is a select ensemble of brass (and percussion) players who study and perform music from all historical periods. Both large brass choir works and small chamber brass works are performed. The ensemble performs on and off campus. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 124 - Woodwind Ensemble**

The Woodwind Ensemble is a small select ensemble of woodwind players who study and perform music for woodwinds from all historical periods. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 125 - Percussion**

This small select ensemble of percussionists studies and performs music composed and transcribed for both percussion and mallet ensembles. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 126 - Flute Choir**

The SRU Flute Choir is made up of a select group of flutists who will rehearse and perform a variety of music written for flute ensemble. Audition required. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 127 - Orientation to Music Therapy**

Orientation to the field of music therapy through lectures, readings, films, and field trips to clinical centers.

Credits: 1

### **MUSI 128 - Applied Alexander Technique**

This course is an introduction to the Alexander Technique in which the students will examine their habitual movement patterns in order to encourage positive energy usage within the body. This technique heightens kinesthetic sensitivity, offering performers a control that is fluid and lively, thus lessening chances of performance injury. The principles of this technique are based on an understanding of human anatomy, which promotes ease, and freedom of movement, balance, flexibility, and coordination. Course may be repeated up to two credits.

Credits: 1

### **MUSI 131 - Class Piano I**

For beginners with no previous keyboard experience. Fundamentals of note reading, beginning piano repertoire, melody harmonization and improvisation. Of particular value to the student desiring to gain a working knowledge of the piano either as a classroom tool or for personal use. Music majors only.

Credits: 1

### **MUSI 132 - Class Piano II**

Continued development of skills begun in Class Piano I (MUSI 131). Music majors only.

**Prerequisites & Notes**

MUSI 131 or equivalent

Credits: 1

**MUSI 133 - Class Voice**

Designed for the purpose of studying basic singing technique and thereby producing a good vocal tone; valuable to the student interested in improving his/her vocal skill. Music majors only.

Credits: 1

**MUSI 134 - Voice Methods**

The pedagogy of singing is emphasized via individual teaching demonstrations thereby enabling students to improve their ability to communicate basic vocal principles to other students. Music majors only.

**Prerequisites & Notes**

MUSI 133

Credits: 1

**MUSI 135 - String Methods**

A study of the fundamental concepts needed to play and teach beginning string instruments (violin, viola, cello, or string bass). No previous experience required. Instruments are provided by the university.

Credits: 1

**MUSI 137 - Functional Guitar for Music Therapy I**

A study of the fundamental concepts needed to play and teach beginning guitar. Students must provide their own instruments. Music majors only.

Credits: 1

**MUSI 138 - Functional Guitar for Music Therapy II**

Continued development of skills begun in Class Guitar I (MUSI 137). Music majors only.

**Prerequisites & Notes**

MUSI 137 or equivalent

Credits: 1

**MUSI 151 - Music Theory and Analysis I**

The student will study the grammar and literature of music through composition, analysis, listening, and performance. Three class meetings each week.

**Prerequisites & Notes**

Co-requisite: MUSI 154

Credits: 2

### **MUSI 154 - Musicianship Skills I**

Students will develop aural, rhythmic and keyboard skills, sight-singing, intervals and triad recognition, simple meters, basic harmonic progressions, major and minor keys and scales. Two class meetings each week.

#### **Prerequisites & Notes**

Co-requisite: MUSI 151

Credits: 1

### **MUSI 165 - Applied Performance Voice**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 165, 265, 365 may each be taken two times for a total of 18 credits; MUSI 465 may be taken four times for a total of 12 credits.

#### **Prerequisites & Notes**

Audition

Credits: 3

### **MUSI 166 - Applied Performance Piano**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 166, 266, 366 may each be taken two times for a total of 18 credits; MUSI 466 may be taken four times for a total of 12 credits.

#### **Prerequisites & Notes**

Audition

Credits: 3

### **MUSI 167 - Applied Performance Strings**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 167, 267, 367 may each be taken two times for a total of 18 credits; MUSI 467 may be taken four times for a total of 12 credits.

#### **Prerequisites & Notes**

Audition

Credits: 3

### **MUSI 168 - Applied Performance Woodwinds**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 168, 268, 368 may be taken two times for a total of 18 credits; MUSI 468 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 169 - Applied Performance Brass**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 169, 269, 369 may each be taken two times for a total of 18 credits; MUSI 469 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 170 - Applied Performance Percussion**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 170, 270 and 370 may each be taken two times for a total of 18 credits; MUSI 470 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 179 - Applied Piano**

With the approval of the applied music teacher, lessons are available in piano, voice, and any of the standard string, brass, woodwind or percussion instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

**MUSI 181 - Applied Voice**

With the approval of the applied music teacher, lessons are available in voice. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

**MUSI 182 - Applied Strings**

With the approval of the applied music teacher, lessons are available in standard string instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 183 - Applied Brass**

With the approval of the applied music teacher, lessons are available in standard brass instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 184 - Applied Woodwinds**

With the approval of the applied music teacher, lessons are available in standard woodwind instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 185 - Applied Percussion**

With the approval of the applied music teacher, lessons are available in standard percussion instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **MUSI 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MUSI 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **MUSI 199 - Fundamental Skills in Music Therapy**

Designed to prepare music therapy majors in fundamental clinical skills in music therapy necessary for working with a variety of client populations. It includes identifying client needs, delineating goals and objectives, task analysis and treatment strategies (re-creative techniques) through the application of functional music skills. Group processes and leadership techniques appropriate for various clientele.

### **Prerequisites & Notes**

MUSI 127,137

Credits: 1

## **MUSI 201 - Studies in Children's Music**

Listening, moving, playing instruments, singing and creating using repertoire suitable for children of various developmental levels.

Credits: 3

## **MUSI 205 - Music in Recreation**

A practical study of the ways and means of planning effective music programs for leisure and recreation and developing the competencies needed by a music leader in recreation.

Credits: 3

## **MUSI 209 - Jazz Combo**

Students will meet weekly with the appropriate faculty member to work on jazz performance in the small group (combo) setting. Study of phrasing, articulation, jazz theory, improvisation, and other jazz performance practices will be addressed. Students will be auditioned at the beginning of the semester for placement. At least one public performance will be given per semester. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 213 - Saxophone Quartet**

Students will meet weekly with the appropriate faculty member to work on literature selected for their performance ability level. Study of phrasing, articulation, balance, blend, intonation, and other performance practices will be addressed. Students will be auditioned at the beginning of the semester for placement. At least one public performance will be given per semester. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 214 - Symphonic Wind Ensemble**



A chamber ensemble composed of select musicians chosen by audition, performing contemporary literature as well as transcriptions for winds and percussion. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

**Prerequisites & Notes**

Audition with the director of the Symphonic Wind Ensemble and the instrumental faculty

Credits: 1

**MUSI 215 - Concert Choir**

Approximately 50 men and women, chosen by audition, to study and perform the great choral literature from the Renaissance to the present. Concerts are presented on campus and on tours. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

**MUSI 216 - Choral Ensemble**

A large ensemble chosen by audition to study and perform the great choral literature. Two and one-half hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

**MUSI 217 - Chamber Singers**

A selected small ensemble of well-blended voices appropriate for the performance of madrigals and other chamber vocal music. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

**MUSI 218 - Marching Pride**

The Marching Pride performs during the half time at football games, both home and away, and for other special events. Much of its music is specially arranged. Open to all students. Six hours a week rehearsal during the football season. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

**MUSI 219 - Concert Band**

The Concert Band members are carefully selected to provide a balanced instrumentation of the best players. Music written for concert band is the main repertoire. Concerts on campus. Six hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 220 - Jazz Ensemble**

The SRU Jazz Ensemble performs jazz literature from all eras of jazz history including big band, bop, hard bop, fusion and contemporary. This ensemble often performs with guest artists of national and international stature, both on and off campus. Membership in this ensemble requires an audition. Four and one-half hours of rehearsal per week. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 221 - Orchestra**

The orchestra is a string ensemble, with winds and percussion added when needed, which performs music from the orchestral repertoire. Admission by audition. Two and one-half hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 222 - Chamber String Ensemble**

The Chamber String Ensemble is a small ensemble selected for the study and performance of chamber music written for strings. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 223 - Brass Ensemble**

The university's Brass Ensemble is a select ensemble of brass (and percussion) players who study and perform music from all historical periods. Both large brass choir works and small chamber brass works are performed. The ensemble performs on and off campus. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 224 - Woodwind Ensemble**

The Woodwind Ensemble is a small select ensemble of woodwind players who study and perform music for woodwinds from all historical periods. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 225 - Percussion**

This small select ensemble of percussionists studies and performs music composed and transcribed for both percussion and mallet ensembles. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 226 - Flute Choir**

The SRU Flute Choir is made up of a select group of flutists who will rehearse and perform a variety of music written for flute ensemble. Audition required. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 228 - Therapeutic Musical Strategies**

Designed to further prepare music majors in various therapeutic musical strategies (receptive and compositional techniques) through the application of functional music skills, group processes and leadership techniques appropriate for various clientele.

#### **Prerequisites & Notes**

MUSI 127, 137, 138, 199 or concurrent enrollment

Credits: 1

### **MUSI 229 - Clinical Integration**

A supervised clinical experience allowing the music therapy student practical experience in a variety of community health care agencies and educational settings.

#### **Prerequisites & Notes**

MUSI 127, 137, 138, 199 or concurrent enrollment

Credits: 0/1

### **MUSI 230 - Clinical Integration**

A supervised clinical experience allowing the music therapy student practical experience in a variety of community health care agencies and educational settings.

**Prerequisites & Notes**

MUSI 228, 229

Credits: 0/1

**MUSI 233 - Chamber Music Performance**

A chamber music ensemble (of various instrumental and/or vocal combinations) which studies and performs music from many style periods. Two hours a week rehearsal time. Course may be repeated up to four credits. Permission of the instructor.

Credits: 1

**MUSI 234 - Class Piano III**

Continued development of skills acquired in Class Piano II to prepare music majors for piano proficiency exam, including sight-reading, transposition, playing by ear, technique and repertoire. Music majors only.

**Prerequisites & Notes**

MUSI 132 or equivalent

Credits: 1

**MUSI 235 - Class Piano IV**

Continued development of skills acquired in Class Piano III to prepare music majors for piano proficiency exam, including sight-reading, transposition, playing by ear, technique and repertoire. Music majors only.

**Prerequisites & Notes**

MUSI 234 or equivalent

Credits: 1

**MUSI 236 - Music Therapy Assessment, Measurement and Evaluation**

This course will present professional standards of music therapy practice including assessment, documentation, and evaluation; as well as techniques and application of behavioral observation and measurement in music therapy.

**Prerequisites & Notes**

MUSI 127, 199 and 228

Credits: 2

**MUSI 237 - Opera Performance**

Performance of scenes, arias, or full operas, taking into consideration the interest and skill of each student. Two to three hours of rehearsal per week; more rehearsal as needed in weeks leading to performance. Each course number may be repeated up to four times.

**Prerequisites & Notes**

Declared Voice major or permission of the instructor.

Credits: 1

**MUSI 245 - Brass Methods**

A study of the fundamental concepts needed to play and teach beginning brass instruments (French horn, trumpet, trombone, baritone horn, tuba) both as soloists and in ensemble.

Credits: 1

**MUSI 246 - Woodwind Methods**

A study of the fundamental concepts needed to play and teach beginning instruments of the woodwind family and the factors peculiar to each instrument (flute, oboe, clarinet, bassoon and saxophone). Students will complete field experience in the public schools as part of the requirements of this course.

**Prerequisites & Notes**

Accepted into Teacher Candidacy

Credits: 2

**MUSI 247 - Percussion Methods**

A study of the fundamental concepts needed to play and teach beginning percussion instruments (pitched and non-pitched).

Credits: 1

**MUSI 253 - Music Theory and Analysis II**

This course is a continuation of Comprehensive Musicianship I. The student will study musical literature written between 600-1750 through composition, analysis, aural discrimination, diatonic harmony, modal counterpoint, and performance. Three class meetings each week.

**Prerequisites & Notes**

MUSI 151 or equivalent; Co-requisite: Should be taken concurrently with MUSI 256

Credits: 2

**MUSI 254 - Music Theory and Analysis III**

This course is a continuation of the Comprehensive Musicianship I and II semesters in which the student will study the musical literature of the years 1750-1900 through the means of chromatic harmony, analysis, score reading, aural discrimination, composition and performance. Three class meetings each week.

**Prerequisites & Notes**

MUSI 253 or equivalent; Co-requisite: should be taken concurrently with MUSI 257

Credits: 2

### **MUSI 255 - Music Theory and Analysis IV**

This course is a continuation of the Comprehensive Musicianship I, II and III sequence. Musical literature of the 20th century will be approached through analysis, listening, score reading, composition and performance. Three class meetings per week.

#### **Prerequisites & Notes**

MUSI 254 or equivalent; Co-requisite: should be taken concurrently with MUSI 258

Credits: 2

### **MUSI 256 - Musicianship Skills II**

Students will work on more advanced harmonies, cadences, phrases, basic harmonization, triadic patterns, sight-singing skip, compound meters. Two class meetings per week.

#### **Prerequisites & Notes**

MUSI 154 or equivalent; Co-requisite: should be taken concurrently with MUSI 253

Credits: 1

### **MUSI 257 - Musicianship Skills III**

Continued study of chromatic harmony and more complex melodic passages, complex meters. Two class meetings per week.

#### **Prerequisites & Notes**

MUSI 256 or equivalent; Co-requisite: should be taken concurrently with MUSI 254

Credits: 1

### **MUSI 258 - Musicianship Skills IV**

Study of rhythmic counterpoint and late 19th century and 20th century harmony. Two class meetings per week.

#### **Prerequisites & Notes**

MUSI 257 or equivalent; Co-requisite: should be taken concurrently with MUSI 255

Credits: 1

### **MUSI 265 - Applied Performance Voice**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 165, 265, 365 may each be taken two times for a total of 18 credits; MUSI 465 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 266 - Applied Performance Piano**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 166, 266, 366 may each be taken two times for a total of 18 credits; MUSI 466 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 267 - Applied Performance Strings**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 167, 267, 367 may each be taken two times for a total of 18 credits; MUSI 467 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 268 - Applied Performance Woodwinds**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 168, 268, 368 may each be taken two times for a total of 18 credits; MUSI 468 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 269 - Applied Performance Brass**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 169, 269, 369 may each be taken two times for a total of 18 credits; MUSI 469 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

## **MUSI 270 - Applied Performance Percussion**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 170, 270 and 370 may each be taken two times for a total of 18 credits; MUSI 470 may be taken four times for a total of 12 credits.

### **Prerequisites & Notes**

Audition

Credits: 3

## **MUSI 273 - History of Music I**

A survey of musical styles from the ages of classical Greece and Rome through the Baroque period. Important composers and their literature will be discussed in relation to artistic, social, political, and economic conditions of their period. A reading knowledge of music is essential.

### **Prerequisites & Notes**

MUSI 151

Credits: 3

## **MUSI 275 - Keyboard Music**

This course will examine the music literature for western keyboard instruments using live and recorded performances.

Credits: 3

## **MUSI 276 - Songs & Singers**

This course will examine music literature for voice. Areas of consideration include solo songs, opera, oratoria, and vocal chamber music.

Credits: 3

## **MUSI 278 - Literature of the American Musical Theater**

A study of the changing styles in the musical theater from 1860 to current Broadway musicals, rock operas, and operetta. Study conducted through the use of recordings, scores and participation.

Credits: 3

## **MUSI 279 - Applied Piano**

With the approval of the applied music teacher, lessons are available in piano. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1



### **MUSI 281 - Applied Voice**

With the approval of the applied music teacher, lessons are available in standard voice. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 282 - Applied Strings**

With the approval of the applied music teacher, lessons are available in string instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 283 - Applied Brass**

With the approval of the applied music teacher, lessons are available in standard brass instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 284 - Applied Woodwinds**

With the approval of the applied music teacher, lessons are available in standard woodwind instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 285 - Applied Percussion**

With the approval of the applied music teacher, lessons are available in standard percussion instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 288 - Music Education for Diverse Learners**

This course is an introduction to historical and instructional foundations of using music with diverse learners. Major topics and developments in the field of special education, important terminology, and curricular issues are explored. Students will learn about the characteristics of students with specific needs, the educational effects of these needs, appropriate adaptations, as well as music education approaches used with diverse learners.

Credits: 3

### **MUSI 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

### **MUSI 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **MUSI 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **MUSI 299 - Diction for Singers I**

In this study of language diction for singers, students will learn the International Phonetic Alphabet and apply it to the singing of English and Italian songs. The course is open to all voice majors.

#### **Prerequisites & Notes**

MUSI 133 or 181

Credits: 1

### **MUSI 300 - Marching Band Field Charting**

Planning and preparation of half time shows using computer assisted design software and the “corps style” approach. Leadership skills, marching band pedagogy, and hand charting techniques will also be studied.

#### **Prerequisites & Notes**

One semester prior experience in the Marching Pride or concurrent enrollment

Credits: 1

### **MUSI 301 - Women and Music**

Explores the musical contributions of women, a group often excluded from studies of music history, from the Middle Ages to the present. Emphasis will be placed on the changing roles of and attitudes towards women as composers, performers, teachers, writers, patrons, and instrument-builders. Focus will be on the music itself, as well as reception history and historical and sociological context. There will also be discussion on the role of gender in shaping musical ideology and experiences.

#### **Prerequisites & Notes**

MUSI 101 or permission of the instructor

Credits: 3

### **MUSI 309 - Jazz Combo**

Students will meet weekly with the appropriate faculty member to work on jazz performance in the small group (combo) setting. Study of phrasing, articulation, jazz theory, improvisation, and other jazz performance practices will be addressed. Students will be auditioned at the beginning of the semester for placement. At least one public performance will be given per semester. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 312 - Music Therapy for Children**

Application of music therapy techniques and materials in all areas of mental health and special education.

#### **Prerequisites & Notes**

MUSI 236 and SPED 100

Credits: 3

### **MUSI 313 - Saxophone Quartet**

Students will meet weekly with the appropriate faculty member to work on literature selected for their performance ability level. Study of phrasing, articulation, balance, blend, intonation, and other performance practices will be addressed. Students will be auditioned at the beginning of the semester for placement. At least one public performance will be given per semester. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 314 - Symphonic Wind Ensemble**

A chamber ensemble composed of select musicians chosen by audition, performing contemporary literature as well as transcriptions for winds and percussion. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

#### **Prerequisites & Notes**

Audition with the director of the Symphonic Wind Ensemble and the instrumental faculty

Credits: 1

### **MUSI 315 - Concert Choir**

Approximately 50 men and women, chosen by audition, to study and perform the great choral literature from the Renaissance to the present. Concerts are presented on campus and on tours. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 316 - Choral Ensemble**

A large ensemble chosen by audition to study and perform the great choral literature. Two and one-half hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 317 - Chamber Singers**

A selected small ensemble of well-blended voices appropriate for the performance of madrigals and other chamber vocal music. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 318 - Marching Pride**

The Marching Pride performs during the half time at football games, both home and away, and for other special events. Much of its music is specially arranged. Open to all students. Six hours a week rehearsal during the football season. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 319 - Concert Band**

The Concert Band members are carefully selected to provide a balanced instrumentation of the best players. Music written for concert band is the main repertoire. Concerts on campus. Six hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 320 - Jazz Ensemble**

The SRU Jazz Ensemble performs jazz literature from all eras of jazz history including big band, bop, hard bop, fusion and contemporary. This ensemble often performs with guest artists of national and international stature, both on and off campus. Membership in this ensemble requires an audition. Four and one-half hours of rehearsal per week. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 321 - Orchestra**

The orchestra is a string ensemble, with winds and percussion added when needed, which performs music from the orchestral repertoire. Admission by audition. Two and one-half hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 322 - Chamber String Ensemble**

The Chamber String Ensemble is a small ensemble selected for the study and performance of chamber music written for strings. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 323 - Brass Ensemble**

The university's Brass Ensemble is a select ensemble of brass (and percussion) players who study and perform music from all historical periods. Both large brass choir works and small chamber brass works are performed. The ensemble performs on and off campus. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 324 - Woodwind Ensemble**

The Woodwind Ensemble is a small select ensemble of woodwind players who study and perform music for woodwinds from all historical periods. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 325 - Percussion**

This small select ensemble of percussionists studies and performs music composed and transcribed for both percussion and mallet ensembles. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 326 - Flute Choir**

The SRU Flute Choir is made up of a select group of flutists who will rehearse and perform a variety of music written for flute ensemble. Audition required. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 327 - Psychology of Music**

This course combines the study of 1) a survey and analysis of music therapy research in order to provide a foundation for developing skills in formulating a research question, reviewing the literature, designing a study, examining ethical questions related to research, analyzing data and writing reports; and 2) psychological and physiological foundations of musical behavior.

#### **Prerequisites & Notes**

PSYC 100 or 105 and MUSI 236

Credits: 3

### **MUSI 329 - Clinical Integration**

A supervised clinical experience allowing the music therapy student practical experience in a variety of community health care agencies and educational settings.

#### **Prerequisites & Notes**

MUSI 230

Credits: 0/1

### **MUSI 330 - Clinical Integration**

A supervised clinical experience allowing the music therapy student practical experience community health care agencies and educational settings.

#### **Prerequisites & Notes**

MUSI 329

Credits: 0/1

### **MUSI 332 - Vocal Conducting**

This course is designed to give the student a practical knowledge of choral conducting techniques and a theoretical understanding of the Vocal Ensemble and its function from auditions through performance.

#### **Prerequisites & Notes**

MUSI 133,155 or equivalent

Credits: 1

### **MUSI 333 - Instrumental Conducting**

The practical aspects of learning to conduct the instrumental ensemble. Students will focus on developing expressive gestures to enhance the basic techniques. Score study, acoustical properties of the instruments, ensemble precision, balance and intonation will be addressed.

**Prerequisites & Notes**

MUSI 151 or equivalent

Credits: 1

**MUSI 334 - Secondary School Music**

The course is designed to prepare the student to teach junior and senior high school choral and general music, choose appropriate teaching materials, supervise a music program, and become aware of professional organizations, workshops, and conferences. Field Experience Required.

**Prerequisites & Notes**

MUSI 134, 332

Credits: 2

**MUSI 335 - Elementary School Music Methods**

A music education course designed to prepare the music education major to teach elementary classroom/vocal music in the public schools through the study of musical literature, methodologies and materials appropriate for use with children. Field experience required.

**Prerequisites & Notes**

MUSI 134

Credits: 2

**MUSI 336 - Instrumental Methods**

Instrumental methods is a music education course designed to prepare the student for a career in public school instrumental music, including: appropriate literature, repair of instruments, public relations, and rehearsal techniques. Field Experience Required.

**Prerequisites & Notes**

MUSI 133, 245, 246, 247 and 333

Credits: 2

**MUSI 337 - Instrumental Rehearsal Techniques**

In this course for music education majors, students will analyze and conduct beginning and intermediate musical scores for concert band and orchestra. The student conductor will identify performance errors and learn specific rehearsal techniques to improve the ensemble's performance. Students will complete field experience in the public schools as part of the requirements of this course.

**Prerequisites & Notes**

MUSI 135, 245, 246, 247 and 333

Credits: 2

### **MUSI 338 - Guitar Methods for Music Education**

A music education course designed to prepare music education majors to teach guitar in the elementary, junior, and/or high school settings. It will also prepare students with the functional skills to use the guitar as an accompanying instrument.

#### **Prerequisites & Notes**

Music Education Majors only

Credits: 1

### **MUSI 350 - Computer Technology in Music**

This course will introduce students to the technologies that are prevalent in the music and arts world today. Students will study the history of music and technology and work with today's computer music technologies such as, DC-Rom and MIDI, as well as creating software through the use of the program Hypercard.

#### **Prerequisites & Notes**

MUSI 255

Credits: 2

### **MUSI 351 - Arranging & Orchestration**

This course covers the basic concepts of arranging relative to instrumental and vocal groups. Emphasis is placed on the making of arrangements in addition to the transcription of composition.

#### **Prerequisites & Notes**

MUSI 255, 350

Credits: 2

### **MUSI 352 - Music Technology**

This course will cover the basic techniques, operation and creative use of recording equipment, electronic music equipment, and computer equipment through practical experience in the Department of Music's recording studio, electronic music studio, and computer music laboratory. Application of music technology in music education, composition, performance, and studio work will be addressed.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 3

### **MUSI 360 - Keyboard Improvisation**

Melody harmonization and improvisation at the keyboard in 20th century popular and jazz styles. One class meeting and one laboratory session each week.



**Prerequisites & Notes**

MUSI 235 or applied equivalent

Credits: 1

**MUSI 361 - Instrumental Improvisation**

This course teaches the basic concepts of improvisation, chord notation and chord styles in popular and jazz music styles. Open to all instrumentalists. One class meeting and one laboratory session per week.

**Prerequisites & Notes**

MUSI 254 or permission of the instructor

Credits: 1

**MUSI 365 - Applied Performance Voice**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 165, 265, 365 may each be taken two times for a total of 18 credits; MUSI 465 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 366 - Applied Performance Piano**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 166, 266, 366 may each be taken two times for a total of 18 credits; MUSI 466 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

**MUSI 367 - Applied Performance Strings**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 167, 267, 367 may each be taken two times for a total of 18 credits; MUSI 467 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

## **MUSI 368 - Applied Performance Woodwinds**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 168, 268, 368 may be taken two times for a total of 18 credits; MUSI 468 may be taken four times for a total of 12 credits.

### **Prerequisites & Notes**

Audition

Credits: 3

## **MUSI 369 - Applied Performance Brass**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 169, 269, 369 may each be taken two times for a total of 18 credits; MUSI 469 may be taken four times for a total of 12 credits.

### **Prerequisites & Notes**

Audition

Credits: 3

## **MUSI 370 - Applied Performance Percussion**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 170, 270 and 370 may each be taken two times for a total of 18 credits; MUSI 470 may be taken four times for a total of 12 credits.

### **Prerequisites & Notes**

Audition

Credits: 3

## **MUSI 373 - History of Music II**

This course examines the music and culture from the period of the Rococo through the 19th century. Lectures, readings, performances and listening sessions develop the student's musical understanding of the period. A reading knowledge of music is essential.

### **Prerequisites & Notes**

MUSI 151

Credits: 3

## **MUSI 379 - Applied Piano**

With the approval of the applied music teacher, lessons are available in standard piano. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 381 - Applied Voice**

With the approval of the applied music teacher, lessons are available in standard voice. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 382 - Applied Strings**

With the approval of the applied music teacher, lessons are available in standard string instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 383 - Applied Brass**

With the approval of the applied music teacher, lessons are available in standard brass instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 384 - Applied Woodwinds**

With the approval of the applied music teacher, lessons are available in standard woodwind instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 385 - Applied Percussion**

With the approval of the applied music teacher, lessons are available in standard percussion instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 387 - Applied Counterpoint I**

This study and practice of writing music according to contrapuntal theory of the 16th century. Course may be repeated for up to 3 credits.

#### **Prerequisites & Notes**

MUSI 255

Credits: 1

## **MUSI 388 - Applied Counterpoint II**

The study and practice of writing music according to contrapuntal theory of the 18th century. Course may be repeated for up to 3 credits.

### **Prerequisites & Notes**

MUSI 255

Credits: 1

## **MUSI 389 - Applied Composition**

Compositional techniques relative to the student's interest will be studied through an analysis of works by major composers. Although no definite idiom is prescribed, contemporary techniques are encouraged. May be repeated for up to three credits.

### **Prerequisites & Notes**

MUSI 255 or permission of the instructor

Credits: 1

## **MUSI 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

## **MUSI 391 - Applied Electronic Composition**

A course designed to present the elements involved in electronic composition. The student will compose using magnetic tape, computer, and synthesizer. Course may be repeated for up to 3 credits.

### **Prerequisites & Notes**

MUSI 255 or 352

Credits: 1

## **MUSI 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

## **MUSI 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **MUSI 399 - Diction for Singers II**

In this study of language diction for singers, students will continue the study of the International Phonetic Alphabet and apply it to the singing of German and French art songs. The course is open to all voice majors.

### **Prerequisites & Notes**

MUSI 299 with grade of C or better

Credits: 1

## **MUSI 409 - Jazz Combo**

Students will meet weekly with the appropriate faculty member to work on jazz performance in the small group (combo) setting. Study of phrasing, articulation, jazz theory, improvisation, and other jazz performance practices will be addressed. Students will be auditioned at the beginning of the semester for placement. At least one public performance will be given per semester. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 413 - Saxophone Quartet**

Students will meet weekly with the appropriate faculty member to work on literature selected for their performance ability level. Study of phrasing, articulation, balance, blend, intonation, and other performance practices will be addressed. Students will be auditioned at the beginning of the semester for placement. At least one public performance will be given per semester. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 414 - Symphonic Wind Ensemble**

A chamber ensemble composed of select musicians chosen by audition, performing contemporary literature as well as transcriptions for winds and percussion. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

### **Prerequisites & Notes**

Audition with the director of the Symphonic Wind Ensemble and the instrumental faculty

Credits: 1

## **MUSI 415 - Concert Choir**

Approximately 50 men and women, chosen by audition, to study and perform the great choral literature from the Renaissance to the present. Concerts are presented on campus and on tours. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 416 - Choral Ensemble**

A large ensemble chosen by audition to study and perform the great choral literature. Two and one-half hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 417 - Chamber Singers**

A selected small ensemble of well-blended voices appropriate for the performance of madrigals and other chamber vocal music. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 418 - Marching Pride**

The Marching Pride performs during the half time at football games, both home and away, and for other special events. Much of its music is specially arranged. Open to all students. Six hours a week rehearsal during the football season. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 419 - Concert Band**

The Concert Band members are carefully selected to provide a balanced instrumentation of the best players. Music written for concert band is the main repertoire. Concerts on campus. Six hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 420 - Jazz Ensemble**

The SRU Jazz Ensemble performs jazz literature from all eras of jazz history including big band, bop, hard bop, fusion and contemporary. This ensemble often performs with guest artists of national and international stature, both on and off campus. Membership in this ensemble requires an audition. Four and one-half hours of rehearsal per week. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 421 - Orchestra**

The orchestra is a string ensemble, with winds and percussion added when needed, which performs music from the orchestral repertoire. Admission by audition. Two and one-half hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 422 - Chamber String Ensemble**

The Chamber String Ensemble is a small ensemble selected for the study and performance of chamber music written for strings. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 423 - Brass Ensemble**

The university's Brass Ensemble is a select ensemble of brass (and percussion) players who study and perform music from all historical periods. Both large brass choir works and small chamber brass works are performed. The ensemble performs on and off campus. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 424 - Woodwind Ensemble**

The Woodwind Ensemble is a small select ensemble of woodwind players who study and perform music for woodwinds from all historical periods. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 425 - Percussion**

This small select ensemble of percussionists studies and performs music composed and transcribed for both percussion and mallet ensembles. Three hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

## **MUSI 426 - Flute Choir**

The SRU Flute Choir is made up of a select group of flutists who will rehearse and perform a variety of music written for flute ensemble. Audition required. Two hours a week rehearsal time. One credit for every semester of satisfactory participation is granted for this music performance group, with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. The ensemble is also available without credit.

Credits: 1

### **MUSI 428 - Music Therapy Advanced Topics: Supervision, Ethics, and Issues of Diversity**

Seminar and practical experience in clinical supervision, professional ethics, disability studies, race theory, and feminism.

#### **Prerequisites & Notes**

MUSI 327, 330

Credits: 3

### **MUSI 431 - Pedagogy**

Acquaintance with the philosophy, theories, techniques, materials, and practical applications of teaching applied music on the student's major instrument of study. Laboratory experience under the supervision of the instructor will be an integral part of the course.

#### **Prerequisites & Notes**

Four semesters of applied major lessons or the equivalent

Credits: 1

### **MUSI 432 - Clinical Integration**

A supervised clinical experience allowing the music therapy student practical experience in a variety of community health care agencies and educational settings.

#### **Prerequisites & Notes**

MUSI 330

Credits: 0/1

### **MUSI 433 - Clinical Integration**

A supervised clinical experience allowing the music therapy student practical experience in a variety of community health care agencies and educational settings.

#### **Prerequisites & Notes**

The student may enroll in this course only when five semesters of music therapy field experience have successfully been completed and with permission of the instructor

Credits: 1

### **MUSI 437 - Opera Performance**



Performance of scenes, arias, or full operas, taking into consideration the interest and skill of each student. Two to three hours of rehearsal per week; more rehearsal as needed in weeks leading to performance. Each course number may be repeated up to four times.

**Prerequisites & Notes**

Declared Voice major or permission of the instructor.

Credits: 1

**MUSI 440 - Music Therapy for Adult Clients**

Application of music therapy techniques and materials in all areas of mental health, corrections, and special education. Emphasis is placed on adult populations and group dynamics.

**Prerequisites & Notes**

MUSI 312, 432 or permission of the instructor and PSYC 276

Credits: 3

**MUSI 450 - Music Therapy Internship**

A continuous six-month internship in an approved music therapy program under the direction of a Board Certified Music Therapist. Required of all candidates for graduation.

**Prerequisites & Notes**

All coursework must be completed

Credits: Up to 12

**MUSI 455 - Student Teaching - Music**

Under the guidance of a cooperating teacher and university supervisor, students engage in two eight-week assignments on a full-time basis in specified school districts and attend scheduled seminars. Supervisors assign additional requirements.

**Prerequisites & Notes**

All program coursework must be completed

Credits: 12

**MUSI 465 - Applied Performance Voice**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 165, 265, 365 may each be taken two times for a total of 18 credits; MUSI 465 may be taken four times for a total of 12 credits.

**Prerequisites & Notes**

Audition

Credits: 3

### **MUSI 466 - Applied Performance Piano**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 166, 266, 366 may each be taken two times for a total of 18 credits; MUSI 466 may be taken four times for a total of 12 credits.

#### **Prerequisites & Notes**

Audition

Credits: 3

### **MUSI 467 - Applied Performance Strings**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 167, 267, 367 may each be taken two times for a total of 18 credits; MUSI 467 may be taken four times for a total of 12 credits.

#### **Prerequisites & Notes**

Audition

Credits: 3

### **MUSI 468 - Applied Performance Woodwinds**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 168, 268, 368 may be taken two times for a total of 18 credits; MUSI 468 may be taken four times for a total of 12 credits.

#### **Prerequisites & Notes**

Audition

Credits: 3

### **MUSI 469 - Applied Performance Brass**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 169, 269, 369 may each be taken two times for a total of 18 credits; MUSI 469 may be taken four times for a total of 12 credits.

#### **Prerequisites & Notes**

Audition

Credits: 3

## **MUSI 470 - Applied Performance Percussion**

Applied lessons for the Bachelor of Music in Performance student. One lesson and 15 hours of practice each week are required for three credits. Applied lessons beyond degree requirements will be granted upon faculty availability. MUSI 170, 270 and 370 may each be taken two times for a total of 18 credits; MUSI 470 may be taken four times for a total of 12 credits.

### **Prerequisites & Notes**

Audition

Credits: 3

## **MUSI 473 - History of Music III**

This course examines the musical events from approximately 1890 to the present. Lectures, readings, performances and listening sessions develop the students' musical understanding of the period. A reading knowledge of music is essential.

### **Prerequisites & Notes**

MUSI 151

Credits: 3

## **MUSI 479 - Applied Piano**

With the approval of the applied music teacher, lessons are available in standard piano. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

## **MUSI 481 - Applied Voice**

With the approval of the applied music teacher, lessons are available in standard voice. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

## **MUSI 482 - Applied Strings**

With the approval of the applied music teacher, lessons are available in standard string instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

## **MUSI 483 - Applied Brass**

With the approval of the applied music teacher, lessons are available in standard brass instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 484 - Applied Woodwinds**

With the approval of the applied music teacher, lessons are available in standard woodwind instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 485 - Applied Percussion**

With the approval of the applied music teacher, lessons are available in standard percussion instruments. Materials studied will depend on the students' background and ability. Normally one lesson and five hours of practice each week are required.

Credits: 1

### **MUSI 487 - Applied Counterpoint I**

This study and practice of writing music according to contrapuntal theory of the 16th century. Course may be repeated for up to 3 credits.

#### **Prerequisites & Notes**

MUSI 255

Credits: 1

### **MUSI 488 - Applied Counterpoint II**

The study and practice of writing music according to contrapuntal theory of the 18th century. Course may be repeated for up to 3 credits.

#### **Prerequisites & Notes**

MUSI 255

Credits: 1

### **MUSI 489 - Applied Composition**

Compositional techniques relative to the student's interest will be studied through an analysis of works by major composers. Although no definite idiom is prescribed, contemporary techniques are encouraged. May be repeated for up to three credits.

#### **Prerequisites & Notes**

MUSI 255 or permission of the instructor

Credits: 1

### **MUSI 490 - Independent Study**

Students have an opportunity to study selected areas in greater concentration under the direction of a music faculty.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

**MUSI 491 - Applied Electronic Composition**

A course designed to present the elements involved in electronic composition. The student will compose using magnetic tape, computer, and synthesizer. Course may be repeated for up to 3 credits.

**Prerequisites & Notes**

MUSI 255 or 352

Credits: 1

**MUSI 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**MUSI 498 - Mozart and His Music**

This unique course relates Mozart's life and music to the history, culture, and social conditions of the 18th century. There will be a classroom, but in reality, the entire city of Salzburg, where Mozart was born and lived, will be the true classroom. Students will explore not only the "birth house" of Mozart, but the Baroque and Rococo architecture, cathedrals, museums and ballrooms which had such profound influences on the young Wolfgang. The class will hear some of Mozart's music played on the original piano. Discussions will include what music meant in the 18th century and what it is and means today.

**Prerequisites & Notes**

None. Open to all, and taught in English.

Credits: 3

**MUSI 499 - Applied Recital**

The purpose of this course is to give the performance majors an opportunity to perform a full recital on their major instrument. It will be taken in addition to study in the student's major applied area. Course may be repeated up to two credits.

Credits: 1

**NURS 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only “basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **NURS 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **NURS 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **NURS 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only “basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **NURS 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **NURS 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **NURS 311 - Introduction to Health Care Informatics**

This course is designed to provide students with an opportunity to apply knowledge and skills from information science and computer science to the health care field. Emphasis will be on developing a basic understanding of how automation is used to manage information in healthcare. Topics covered include types of information systems used in healthcare, how to select and implement information systems, current developments in healthcare information systems, issues surrounding computers in health care. In this course the focus is on the computer as a tool for helping healthcare providers do their work.

Credits: 3

### **NURS 312 - Nursing in Transition**

Nursing 312 examines professional role socialization from a historic, contemporary, and futuristic view. It enables the student to develop communication and technology skills necessary for success in a collegiate nursing program.

#### **Prerequisites & Notes**

Admission into the BSN program

Credits: 3

### **NURS 322 - The Teaching-Learning Process in Nursing**

This course is designed for the registered nurse who desires greater knowledge and skill in assisting individuals, families, and groups to acquire health-related knowledge, skills, and values. The course provides opportunities from a conceptual and practical perspective to explore the dynamics that contribute to effective health education. Emphasis will be placed upon developing the nurses' abilities, confidence, and self-image as teachers.

Credits: 3

### **NURS 327 - Group Process for Nursing**

Provides opportunities to develop leadership skills with groups for the purposes of maintaining, regaining or improving their levels of wellness. The focus is on the group as a system. Combined conceptual knowledge and practical skills needed to work effectively with health-related groups will be taught (3 credits theory)

Credits: 3

### **NURS 331 - Evidence Based Health Assessment and Promotion**

This course emphasizes the complete health assessment, the nursing process, and its relationship to the prevention and early detection of disease in clients across the life span. This course reinforces the processes of health assessment: interviewing, history-taking, and physical assessment. Dominant models, theories and perspectives are used to explain health behaviors in relation to evidence-based health promotion and health education strategies. Students are expected to correlate health assessment and promotion with current evidence. This course includes assignments with computer simulated standardized patients. Incorporated throughout the course is the importance of communication and collaboration across culturally diverse populations.

Credits: 3

### **NURS 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **NURS 395 - Workshop**

All academic departments list this workshop course. Please contact the individual department for more information. A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1 to 3

### **NURS 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **NURS 408 - Delivery of Nursing Care in a Managed Care Environment/Clinical**

This course prepares students to understand managed health care delivery systems and their impact of delivery and practice patterns with emphasis on the delivery of nursing care.

#### **Prerequisites & Notes**

NURS 311, 312, 327

Credits: 3

### **NURS 422 - Nursing Research**

This course examines in-depth the role of research in the development and refinement of the nursing process and its relationship and contribution to the development of nursing science. The student becomes a more critical consumer of nursing research by developing beginning understanding of the principles associated with each major step of the research process and applying these to a group research exercise. Students conduct a computer-assisted search of the literature as well as to apply the concepts derived from beginning statistics.

#### **Prerequisites & Notes**

NURS 311, 312, 327

Credits: 3

### **NURS 426 - Community and Public Health Nursing**

In this course the focus is on the community as the client. Theories, models, and concepts from community and public health nursing are examined. A course project, the Community Assessment, provides students the opportunity to complete and analyze a community assessment.



**Prerequisites & Notes**

NURS 311, 312, 327

Credits: 3

**NURS 429 - Financial Management for Nursing Case Managers**

This course provides students with content related to current issues, tools (i.e. Excel spreadsheet), and regulation necessary to function as a nursing case manager.

Credits: 3

**NURS 430 - Leadership in Nursing and Healthcare Systems**

This course is designed to provide students with a working knowledge of concepts and processes of leadership theory and practice in nursing and healthcare systems. Students successfully completing this course will be able to identify the personal and situational factors affecting leadership performance and adapt their behavior to become more effective leaders.

Credits: 3

**NURS 433 - Innovative Technology for Healthy Communities**

This course focuses on consumer health informatics and technology which explores how innovative technology can be used to improve individual's health within various community settings. Topics include the mode of delivery of consumer health information such as Internet-based technology; shared access to individual's private health information; quality of consumer health information via social media; and health and information literacy seeking behavior. Finally, various types of innovative technology used within the home environment or within a healthcare setting to support consumers within a home environment will be explored.

Credits: 3

**NURS 440 - Nursing Case Management in Today's Healthcare Environment**

This course is designed to prepare students to understand the case management responsibilities which include planning, coordinating, and managing care of consumers within a health care system. Students will learn to use evidence based pathways in making decisions, planning care and finding the best ways to deliver safe, quality and culturally appropriate care and controlling increasing health care costs. Identify innovative technologies to measure case management effectiveness and outcomes.

**Prerequisites & Notes**

NURS 311, 312, 327

Credits: 3

**NURS 450 - Health Care Informatics Internship**

Provides opportunity to apply theory and develop competencies in health care informatics through a work-related experience in an appropriate health related enterprise.

**Prerequisites & Notes**

Cumulative and major GPA 2.500 and approval of minor or certificate advisor

Credits: Up to 12

**NURS 451 - Internship in Correctional Nursing**

Provides opportunity to apply theory and develop competencies in correctional nursing through a work-related experience in an appropriate correctional institution.

**Prerequisites & Notes**

Must be a registered nurse enrolled in the criminology minor with a cumulative and major Q.P.A. 2.500. Any exceptions to these prerequisites require the permission of the chairs of the social work, criminology and criminal justice department and the nursing department.

Credits: 6

**NURS 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 3

**NURS 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**NURS 498 - Selected Topics**

Elective nursing courses whose purpose is to deepen or broaden the student's perspective on aspects of professional nursing practice. Each course includes an exploration of nursing roles and nursing research related to such topics as: Trends in Nursing Care of Children, Nursing Care of the Older Adult, Nursing and Contemporary Women's Health Issues.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

**NURS 510 - Cardiovascular Function: Assessment and Treatment**

Emphasis is placed upon the pathophysiological changes in coronary artery disease and the major mechanisms used to diagnose, monitor, and treat the alterations. Normal and abnormal EKG interpretation and medical and surgical management are presented. The role of a health team approach is addressed.

**Prerequisites & Notes**

Human Anatomy and Physiology or permission of the instructor

Credits: 3

**NURS 511 - Advanced Healthcare Informatics**

This course is designed to provide students with an in-depth analysis of healthcare informatics. Emphasis will be on developing a comprehensive understanding of the use of information systems in health care. Topics covered include health care data, information and knowledge, health care classifications and coding systems, and use of ethical and legal principles with information systems. In this course the focus is on applying computer, information, and health care concepts to real world problems in health care.

**Prerequisites & Notes**

NURS 311 or permission of the instructor

Credits: 3

**PE 106 - Gymnastics Fundamentals**

This course is based on the study of PreK-12 developmentally appropriate gymnastics, with the recognition of individual and group uniqueness, acknowledging and valuing diversity. An emphasis will be placed on an educational gymnastics approach, utilizing movement concepts appropriate for teaching children body awareness and body control. Students will also learn skill progressions, spotting techniques, and biomechanical principles involved in a variety of gymnastic skills performed on traditional and non-traditional gymnastics equipment.

Credits: 3

**PE 107 - Aquatic Fundamentals**

This course is designed to provide the student with an overview of a variety of aquatic activities. Consideration is given to basic swimming strokes, starts and turns, small craft safety, skin diving, elementary non-swimming rescue techniques, diving progressions from the deck, springboard diving, synchronized swimming, water polo, personal fitness, and aquatic games. This is a Theory and Technique Course (open to Physical Education majors only).

**Prerequisites & Notes**

American Red Cross Level III swimmer

Credits: 3

**PE 110 - Strength/Resistance Training**

Designed to provide practical knowledge to effectively design an individualized weight training and/or body building program. Specific emphasis will focus on strength training principles, safety procedures, equipment, and individualized programming. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

**PE 113 - Golf**

This course is designed to introduce the student to all phases of golf through application of the skills used in these activities. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 114 - Orienteering**

This course is designed to teach the fundamental skills for traveling in the outdoors by map and compass in unfamiliar territory, and to introduce the sport of orienteering. The sport involves competitive cross country hiking/running on a set course as accurately and quickly as possible. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 115 - Hatha Yoga**

This course helps with the physical manipulation of the body into asanas using relaxation and breathing techniques. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 123 - Stand-Up Paddleboarding**

This course is designed to explore the fundamental skills and safety concepts necessary to paddle stand-up paddle boards (SUPs) effectively. Safety procedures will be emphasized such as, selection of waterways appropriate for an individual's skill set and experience level, self-rescue and group rescue approaches. Various paddling techniques including power strokes, turning strokes and bracing with the paddle will be examined. In addition, equipment selection and care, boating regulations, trip planning and logistics, outdoor leadership, basic water reading skills, flat water navigation skills, white water classification and minimum environmental impact techniques will be addressed. An overview of the various types of stand-up paddle boards (SUPs) as well as necessary safety equipment will be explored.

Credits: 2

### **PE 125 - Bicycling**

This course helps develop safe cycling skills. Included in the course will be the opportunity to learn how to select and maintain bicycles. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 2

### **PE 131 - Foundations of Leadership in Physical Activity**

This course is designed to introduce the student majoring in Leadership in Physical Activity to the history, philosophies, professional organization, important concepts, careers and trends in physical activity leadership.

Credits: 3

### **PE 133 - Tai Chi Chuan: Chinese Classical Exercise**

An introduction to the Chinese Classical Exercise System inspired by the Chinese "Book of Changes." Tai Chi Chuan concentrates on relaxed movement, proper breathing and attention to posture. Any age or physical performance level

may participate. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 140 - Downhill Snow Skiing I**

This course students to acquire a basic knowledge and appreciation of skiing as a sport and as a life-time leisure activity. Safety procedures and skiing etiquette also are discussed. Instruction takes place at Peek N' Peak Ski Resort. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 141 - Personal Physical Fitness**

This course provides students the opportunity for individual assessment and exercise programs to improve and/or maintain physical fitness and weight control. Principles involved with the maintenance of physical fitness, weight control, diets, and the aging process will be provided through lecture. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 146 - Beginning Swimming**

This course is designed to provide the novice or non-swimmer with the opportunity to learn elementary back stroke, water safety skills, diving and adjustment to water. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 149 - Tennis**

This course teaches basic fundamentals. The rules, regulations, and history of tennis also will be covered, along with strategies of the single and double games. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 152 - Practical Introduction to Teaching Physical Education**

This course is an orientation to the art and the science of teaching physical education. Students will learn about the teaching styles and strategies that lead to effective organization and management in physical education classes. Required field experiences give students the opportunity to observe learner characteristics, student behavior, teaching functions, and the teaching effectiveness of professional teachers. This is a Theory and Technique Course (open to Physical Education majors only).

Credits: 3

### **PE 166 - Coaching Practicum**

The coaching practicum is designed to provide the student with a realistic experience at a level and in a setting similar to that in which he/she wishes to obtain employment.

The practicum experience is a 50-hour learning opportunity in which the student assists in all phases of the operation of an athletic program. The student may not be the head coach, unless a direct supervisor is present. **The student may not be a current participating athlete on the team.**

The student may not work with the same team twice. Each experience must be at a different level if working with the same sport. A minimum of two different sports must be included in the practicum experiences. (For example: HS baseball, Little League baseball, HS football).

Each student must complete a contract with the athletic program and submit the contract to the coaching practicum coordinator (University supervisor) for approval. The coordinator will then contact the athletic program for verification of the learning experience, dates of the experiences and details of evaluation procedures.

Credits: 1

### **PE 175 - Teaching of Track and Field**

Emphasizes track and field skill acquisition along with identification of appropriate teaching methods associated with these activities. This is a Theory and Technique Course (open to Physical Education majors only).

Credits: 1

### **PE 177 - Teaching of Self-Defense/Lacrosse**

The course deals with the skills, knowledge, and attributes needed for self-defense and lacrosse. This course also emphasizes the teaching, coaching, officiating, and physical skill development of men's and women's lacrosse. This is a Theory and Technique Course (open to Physical Education majors only).

Credits: 1

### **PE 181 - Adventures in Backpacking**

This course teaches the basic knowledge and skills of backpacking travel in a temperate environment. Techniques such as how to use and to carry a backpack, hiking skills including route selection and trail negotiation with a pack, map, and compass techniques, knowledge and care of backpacking equipment, planning backpacking trips, and environmentally sound backpacking skills will be covered. The course includes a mandatory weekend trip to put skills to practical use. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 182 - Introduction to Rock Climbing**

Introduces students to the fundamental skills of rock climbing. Beginning skills in belaying, static climbing, rappelling, prussiking and artificial wall climbing safety considerations will be covered. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 184 - Adventure Games**

This course is designed to provide physical activity and direct experience in adventure challenges requiring self-discipline, willingness to try, and personal commitment. Coursework includes physical fitness and flexibility exercises, aerobic games, cooperative games and nongames, group initiatives, trust activities, and challenge course low and high elements involving perceived physical and psychological risk and challenges. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 186 - Cross Country Skiing**

This course teaches the fundamental knowledge and skills of classical cross country skiing and touring, including waxing and equipment care. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 2

### **PE 187 - Flat-water Canoe Tripping**

This course teaches the basic skills and concepts of flat-water canoe camping, such as how to enter and to exit a canoe, tandem paddling techniques, canoe safety, and canoe portaging. Students will also learn basic canoe camping skills, including food planning, how to use camping equipment, and minimum impact camping techniques. Students will participate in a mandatory weekend canoe camping experience to put learned skills to practical use. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 188 - Sailing**

This course offers students an opportunity to develop skills, to learn techniques, and to achieve personal satisfaction in beginning sailing. The course also involves the knowledge and application of the rules of water safety to the sport of sailing. This class is designed for beginners. At its conclusion students will be able to enjoy sailing as a lifetime recreational sport. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 189 - Basic Canoeing**

Instruction focuses on the fundamental skills and concepts needed to operate a canoe effectively and safely. Basic skills, such as how to enter and exit a canoe, canoe safety, and tandem paddling techniques, are discussed. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PE 191 - Foundations of Physical Education**

This course is designed to introduce the student majoring in physical education teacher education to the historical, philosophical, cultural and sociological influences that have shaped the profession of teaching physical education. A foundational perspective will be taken to clarify the related disciplines, history, and current issues of physical education and of education, from the ancient cultures to the 21st century. This is a Theory and Technique Course.

Credits: 2

### **PE 192 - Diversity Issues in Physical Education**

This course will explore differences among students within a variety of physical education settings. Students will learn about other people and explore how others view participation in physical activity and exercise. This course will help students become sensitive to and appreciate the diversity of others, thus, demonstrating responsible social behaviors that will enable them to interact in a positive manner with diverse groups within the physical education enrichment. This is a Theory and Technique Course.

Credits: 2

### **PE 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PE 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PE 202 - Technology for Physical Education Teacher Education**

This purpose of this course is to familiarize and enhance physical education major's technology skills to support instruction in a K-12 setting. The course includes personal computer use in creating materials to enhance instruction and aid in assessment. Also included are other technologies, such as personal digital assistants (PDAs), heart rate monitors and digital cameras/camcorders, in addition to various physical education software and Internet options. A portion of the course will be conducted online using Blackboard. This is a Theory and Technique Course (open to Physical Education majors only).

Credits: 3

### **PE 227 - Introduction to Adapted Physical Activity**

Develop an understanding of disabilities and apply that knowledge in the application of active-living, community-based physical activity programs.

Credits: 3



### **PE 230 - Teaching and Coaching of Track and Field**

This course is designed to introduce the student to the teaching and coaching aspect of Track and Field. Skill acquisition, strength and conditioning methods, teaching and coaching skills, and historical perspectives of Track and Field will be studied. Emphasis will be placed on planning and applying developmentally appropriate activities for all learners.

Credits: 3

### **PE 231 - Strategies for Teaching Physical Activity**

This course is designed to teach evidence-based educational methods and adult learning strategies to equip the student to educate individuals throughout the lifespan through: 1) a basic understanding of learning and developmental theories; 2) communication techniques; 3) positive behavior management; 4) environmental modifications; and 5) group engagement strategies.

Credits: 3

### **PE 236 - Introduction to Kayaking**

This introductory course is designed to explore the fundamental skill and safety concepts necessary to paddle a kayak effectively. Safety procedures will be emphasized such as entering and exiting the kayak, the bow rescue, the Eskimo roll, as well as self-rescue and group-rescue approaches. Various paddling techniques including power strokes, turning strokes, and bracing with the paddle will be examined. In addition, equipment selection and care, boating regulations, tripping planning and logistics, outdoor leadership, basic water reading skills, white water classification and minimum environmental impact techniques will be addressed. An overview of the various types of kayaks and kayaking, such as whitewater kayaks, sit-on-top kayaks, and touring kayaks, as well as necessary safety equipment, will be explored.

Credits: 2

### **PE 237 - Emergency Medical Response**

This course is designed to provide the student with the knowledge and skills necessary to work as an emergency medical responder (EMR) to help sustain life, reduce pain and minimize the consequences of injury or sudden illness until more advanced medical help takes over. The course content meets or exceeds the current Emergency Medical Services Educational Standards for Emergency Medical Responders and current NATA Education Competencies.

Credits: 3

### **PE 240 - Downhill Snow Skiing II**

Advanced techniques of downhill skiing are presented. Instruction takes place at Peek N' Peak Resort. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 241 - Outdoor Pursuits**

This course is designed to introduce the student majoring in physical education teacher education to the varied but interrelated topics of outdoor pursuits, adventure programming, experiential education, and new games philosophy as they relate to physical education and recreation programming. The course will provide physical activity, direct

experience, and leadership techniques in adventure challenges which require self-discipline, a willingness to try, and personal commitment. A weekend overnight backpacking/camping experience is required. This is a Theory and Technique Course (open to Physical Education majors only).

Credits: 3

### **PE 242 - Fitness Education**

This course is designed to provide practical knowledge and skills to develop, organize, and administer age appropriate health-related fitness education programs for youth and adolescents including muscular strength, endurance, flexibility, body composition and cardiovascular endurance activities. This is a Theory and Technique Course (open to Physical Education majors only).

#### **Prerequisites & Notes**

PE 141

Credits: 3

### **PE 243 - Educational Movement in Health & Wellness**

This course helps students achieve individual competency in applying educational gymnastics, fundamental movement, educational/multicultural games and educational/ creative dance to learn Laban's educational movement concepts through the use of cooperative learning, problem solving, and guided discovery. Students construct developmentally appropriate interdisciplinary standards-based expressive movement experiences that show meaningful application to children's learning inclusive of children with special needs and English language learners. Content will also address health and wellness concepts central to grades pre-K-4 as it relates to educational movement. Students will reflect (metacognition) upon their educational movement experiences including but not limited to individual competency, diversity, critical thinking, core subject integration, and differentiating instruction.

*Change to 3 credits from 2 in Fall 2013 semester.*

Credits: 3

### **PE 250 - Equine Assisted Activities**

An introduction to equine assisted activities including basic safety skills, lesson preparation, benefits for individuals with disabilities, tack/equine selection, and certification procedures. Students will gain practical experience through riding horses and assisting individuals with disabilities during lessons.

Credits: 3

### **PE 262 - Adapted Aquatics**

Develop knowledge base in the study of disability through discussion and practical experiences as it relates to aquatic programming.

#### **Prerequisites & Notes**

PE 227 or permission of instructor

Credits: 3

### **PE 263 - Lifeguarding**

The lifeguarding course is designed to provide lifeguard candidates with skills and knowledge necessary to keep patrons of aquatic facilities safe in and around water. This course includes techniques with aquatic-specific first aid and cardiopulmonary resuscitation (CPR) training, Automated External Defibrillation, Oxygen Administration and training in specific water environments. Offered to all students.

Credits: 3

### **PE 266 - Disability Sport in the 21st Century: A Global Perspective**

This course is designed to introduce the students to the study of Disability Sport across the world. Students will study the history, current movement, and future developments of Disability Sport in an ever changing and emerging field of sport for persons with disabilities.

Credits: 3

### **PE 268 - Introduction to School and Community Health**

This course is designed to provide students with the knowledge and skills necessary to assess health needs in school and community settings and effectively design and evaluate programs and initiatives that promote health literacy and healthy living.

Credits: 3

### **PE 270 - Psychological and Sociological Bases of Sport**

This course provides students with an understanding of the relationships between sport and various psychological and sociological factors. This is a Theory and Technique Course.

Credits: 3

### **PE 272 - Enhancing Fitness through Running and Walking**

This course is designed to teach students how to personally perform and to lead others in aerobic physical activities using indoor and outdoor settings. This course focuses on leading fitness enhancing activities through running, trail-running, Nordic walking, community walking and hiking. These activities are designed to improve aerobic fitness, manage weight and promote healthy lifestyles. The settings include roadways, trails and community common areas. Course content centers on individual and group health and fitness, and strategies for conveying this information.

Credits: 2

### **PE 274 - Assessment Strategies in Physical Education**

This course content is designed to give the student an understanding of assessment techniques used in physical education. Students will learn the various techniques used for assessing as applied in the public school setting. Students will have the opportunity to use several of the computer applications related to physical education. This is a Theory and Technique Course.

#### **Prerequisites & Notes**

PE 152

Credits: 3

### **PE 275 - Women in Sport**

This course emphasizes the problems, processes and patterns of sport involvement of women in utilizing an historical, sociological, psychological and biological approach. The focus is primarily on women in the United States, although the sport participation of women in other cultures is also examined. This is a Theory and Technique Course (open to Physical Education majors only).

Credits: 3

### **PE 287 - Adapted and Therapeutic Exercise**

Practical experiences in assessment of assigned clients with disabilities, program design, and administration of exercise and physical activities performed in an aquatic and/or land-based setting.

#### **Prerequisites & Notes**

PE 227 or permission of the instructor

Credits: 3

### **PE 289 - Advanced Canoeing**

This course teaches students the advanced skills and techniques of canoeing. Safety instruction is emphasized. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PE 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PE 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PE 301 - Sports Officiating**

This diverse class is designed to provide the student with an overview of the techniques required for officiating various sports. The official's role and rules of the game(s) will be presented, and opportunities will be provided for practical officiating experience. This will be followed by comprehensive analysis of the student's officiating style, knowledge of the rules and professionalism.

Credits: 2

### **PE 331 - Evidence-based Physical Activity Practices**

This course is designed to introduce students in current theories, models and successful interventions used in physical activity promotion including: factors/barriers influencing physical activity among children/adolescents and adults. The focus of the course is on the acquisition of evidence-based practices that lead to appropriate assessment strategies, implementation models and evaluative techniques.

#### **Prerequisites & Notes**

PE 131; PE 231

Credits: 3

### **PE 332 - Administration and Management of Physical Activity Programs**

This course is designed to teach students how to ethically administer, manage and evaluate physical activity programs in the community with respect to managing operations, developing and managing financial resources and managing human resources.

#### **Prerequisites & Notes**

PE 131

Credits: 3

### **PE 334 - Applied Methodologies in Adventure Activities**

This course is designed to teach evidence-based educational methods and learning strategies to equip the student to educate individuals in a variety of adventure throughout the lifespan through a variety of adventure activities. A number of pertinent topics specific to adventure education will be addressed including foundational knowledge, self-awareness and professional conduct, decision making and judgment, experiential teaching and facilitation, environmental stewardship, adventure program management, adventure safety and risk management, inclusive learning, and technical ability.

Credits: 3

### **PE 342 - Wellness through Movement**

This course is designed to provide the student with scientifically based knowledge concerning the benefits of physical activity along with the consequences associated with a lack of physical activity both on a personal and societal level. Students will participate in application of physical activity training, health-related fitness assessments and lifestyle modification activities.

#### **Prerequisites & Notes**

N/A

Credits: 3

### **PE 345 - Teaching and Coaching of Water Polo**

This course is designed to introduce the student to the teaching and coaching aspects of water polo. Skill acquisition, strategy and tactics, strength and conditioning, teaching and coaching skills for water polo will be studied. Emphasis will be placed on planning and applying developmentally appropriate activities for all learners.

Credits: 3

### **PE 348 - Aquatic Leadership**

This course is designed to prepare students for leadership responsibilities in the field of aquatics. Program development, facility operation, risk management, and staff management will be included in this course.

#### **Prerequisites & Notes**

Water Safety Instructor Certification

Credits: 2

### **PE 349 - Skin and Scuba Diving**

This course provides students with the opportunity to learn a wide variety of skin and scuba diving skills, including rescue techniques. In addition, emphasis will be placed upon the following: 1) selection, care, and use of diving equipment, 2) physical and biological aspects of various diving environments, 3) first aid as applied to scuba diving, including cardio-pulmonary resuscitation, and 4) aspects of physics, physiology, and medicine related to the diver's performance in the water. This is a Wellness and Lifetime Activity Course (offered to all students).

Credits: 1

### **PE 352 - Secondary Physical Education Teaching Methods**

Designed as a third level pedagogy class. This course offers "in-depth" continuation of the study and application of effective teaching and learning in the secondary physical education classroom. This is a Theory and Technique Course (open to Physical Education majors only).

#### **Prerequisites & Notes**

PE274 and acceptance to teaching certification

Credits: 3

### **PE 355 - Assessment Techniques in Adapted Physical Activity**

Use of formal and informal (authentic) assessments to evaluate individuals with disabilities, toddler through adults, through a multidisciplinary approach in a physical activity setting.

#### **Prerequisites & Notes**

PE 227

Credits: 3

### **PE 356 - Net/Wall Activities and Games**

This course is designed to introduce the student to games and skills associated with a variety of racquet activities and games, which will include tennis, badminton, racquetball, volleyball, and table tennis. Emphasis will be placed on planning and applying developmentally appropriate activities for all learners. This is a Theory and Technique Course (open to Physical Education majors only).

Credits: 3

### **PE 357 - Territory Activities and Games**

This course is designed to introduce the student to the games and skills associated with a variety of territory activities and games, which will include flag football, basketball, hockey and soccer. Emphasis will be placed on planning and applying developmentally appropriate activities for all learners.

Credits: 3

### **PE 358 - Lifetime/Leisure Activities and Games**

This course is designed to introduce the student to the games and skills associated with a variety of target activities including, but not limited to, golf, bowling, and archery. Emphasis will be placed on planning and applying developmentally appropriate activities for diverse learners. This is a Theory and Technique Course (open to Physical Education majors only)

Credits: 3

### **PE 359 - Striking/Fielding Activities and Games**

This course is designed to introduce the student to the games and skills associated with a variety of striking/fielding activities, which will include softball, cricket, and rounders. Emphasis will be placed on planning and applying developmentally appropriate activities for all learners. This is a Theory and Technique Course (open to Physical Education majors only).

Credits: 2

### **PE 360 - Anatomical and Physiological Bases of Physical Education**

This course is designed to provide the basic anatomical and physiological principles that have direct application to physical activity programming in the K-12 school setting. Weekly laboratory sessions will provide practical application experiences to illustrate the theoretical knowledge base.

Credits: 3

### **PE 362 - School Health Education Teaching Methods**

The course focuses on Health Education curriculum design and developmentally appropriate instructional techniques that can be utilized for health promotion in school settings. Course included universally accepted pedagogical strategies with opportunities to observe and practice these strategies with K-12 health education content.

#### **Prerequisites & Notes**

Include successful completion of HLTH262 (minimum grade of "C") and acceptance into the College of Education

Credits: 3

### **PE 363 - Lifeguarding Instructor**

The purpose of the Lifeguarding Instructor course is to train instructor candidates to teach lifeguard training, first aid, lifeguard management, CPR for the professional rescuer, AED essentials, oxygen administration for the professional rescuer, preventing disease transmission, community water safety, and basic water rescue. The training in this instructor course prepares instructor candidates by developing their understanding of how to use course materials, how to conduct training sessions, and how to evaluate participants' progress.

#### **Prerequisites & Notes**

Lifeguarding certification

Credits: 3

### **PE 364 - Biomechanics of Individuals with Disabilities**

A study of human movement patterns with emphasis on the development of efficient movement for special populations. Efficient movement patterns will be based on anatomical, mechanical, and physiological principles.

#### **Prerequisites & Notes**

PE 227 or permission of instructor

Credits: 3

### **PE 369 - Philosophy and Psychology of Coaching**

This course emphasizes the relationships involved in the association of the coach with the administration, student body, players, press and community. This is a Theory and Technique Course.

Credits: 3

### **PE 383 - Motor Development and Learning**

This course introduces the student to the factors influencing the changes in the development and learning of motor skills from infancy to adolescence. Practical laboratory activities are utilized to illustrate basic concepts of motor development and motor learning. This is a Theory and Technique Course (open to Physical Education majors only).

#### **Prerequisites & Notes**

CDEV 248 and admission to teacher certification

Credits: 3

### **PE 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PE 395 - Workshop**



A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PE 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PE 420 - Field Experience**

This course is designed to provide students with experiences which allow them to apply their knowledge and skills in a practical worksite situation. This is a Theory and Technique Course (open to Physical Education majors only).

#### **Prerequisites & Notes**

PESM 474 or permission of the instructor

Credits: 1

### **PE 446 - Water Safety Instruction**

The purpose of this instructor course is to train instructor candidates to teach American Red Cross Swimming and Water Safety courses. It is a certification course for American Red Cross Water Safety Instructor (WSI).

#### **Prerequisites & Notes**

PE 107 or permission of instructor.

Credits: 3

### **PE 450 - Internship in Physical Activity**

This course is designed to provide students an opportunity to apply career-oriented skills acquired through the Leadership in Physical Activity Track in a supervised work experience in a university approved agency.

Prior to enrolling in PE 450, student must have:

- Completion of Internship Application Form
- Proof of Professional Liability Insurance
- Proof of current Adult, Child and Infant CPR, AED and, First Aid & Safety certifications
- Overall and major GPA requirement: 2.5 or higher
- Successful completion of all Leadership in Physical Activity coursework

*Course active beginning Fall 2013.*

#### **Prerequisites & Notes**

PE 131, 231, 202, 331, 332, 473, 141, 242, 342, 360

Credits: 1-12

## **PE 452 - Field Experience in Elementary PE Methods**

This professional methods course will provide the preservice teacher candidate with knowledge and skills to effectively teach physical education in an elementary school for learners of all ability levels by differentiated instructional strategies. This advanced study of developmentally appropriate standards-based planning, teaching and assessing concepts and applications for grades K-6 includes a field experience throughout the semester. The teaching styles applied throughout this course are from Mosston's Spectrum of Teaching Styles, established in PE 61-352 the prior semester.

### **Prerequisites & Notes**

Acceptance into the College of Education; PE152, PE274, and PE352

Credits: 3

## **PE 455 - Student Teaching - Physical Education**

Under the guidance of a cooperating teacher and university supervisor, students in this course engage in two eight-week assignments on a full-time basis in specified school districts and attend scheduled seminars. Additional assignments required. This is a Theory and Technique Course (open to Physical Education majors only).

### **Prerequisites & Notes**

PE 452 and admission to teacher certification

Credits: 12

## **PE 460 - Program Design in Adapted Physical Activity**

Develops competencies in the implementation of developmentally appropriate activities for children and adults with disabilities in the school and through transitional programs conducted within the community.

### **Prerequisites & Notes**

PE 227, Corequisite of PE 355 or permission of the instructor

Credits: 3

## **PE 462 - Field Experience in School Health Education Methods**

The course focuses on Health Education instructional and assessment techniques that can be utilized for health promotion in school settings. Development of a comprehensive school health curriculum using the National Health Education Standards and the Assessment Framework is emphasized including appropriate scope and sequence, content, and skills. Special emphasis is accorded to meeting the Pennsylvania Chapter Regulations that address teaching HIV/AIDS, human sexuality, family life education, tobacco, alcohol, and other forms of chemical abuse. The course includes a practica in the schools that allows opportunities to observe, practice, and reflect on specific school health education teaching strategies.

### **Prerequisites & Notes**

Successful completion of HLTH 262 and PE 362 (minimum of "C") and acceptance in the College of Education

Credits: 3

### **PE 468 - Senior Seminar in Physical and Health Education Teacher Education**

This course is designed to provide a capstone overview of the organization, management and application of physical education and health instructional and extra-class programs. Content focuses on current issues and trends in the discipline. This is a Theory and Technique Course (open to Physical Education majors only).

#### **Prerequisites & Notes**

PE 352 and admission to teacher certification

Credits: 2

### **PE 473 - Professionalism, Advocacy, and Leadership in Physical Activity**

This course is designed to actively involve the learner in an advanced study of physical activity. The course is conducted in seminar format and the students will study the application of the principles, methods, organization and administration of individualized physical activity programs and the development of professional, advocacy and leadership qualities and skills.

#### **Prerequisites & Notes**

PE 227

Credits: 3

### **PE 490 - Independent Study**

With the approval of the students' advisors and departmental chairperson, students may pursue an individual project in physical education especially suited to meet the students' needs.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and Dean of the college where the study will be conducted.

Credits: 1 to 3

### **PE 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PE 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

### **PHIL 101 - Introduction to Philosophy**

A first encounter with the nature and methods of philosophical thinking in which a person's view of his/her own nature and of the world becomes challenged, explored and deepened.

Credits: 3

### **PHIL 113 - Introduction to Logic**

A study of the nature of conceptual thinking, including the role of language, formal and informal fallacies, truth tables, and elementary techniques of modern logical analysis in order to improve the student's skill in reasoning.

Credits: 3

### **PHIL 123 - Ethics**

An introduction to the study of questions concerning right action, moral obligation, and an examination of various theories of moral judgment.

Credits: 3

### **PHIL 140 - World Religions**

An examination of the beliefs and practices of the principle religions of the world, which may include Hinduism, Buddhism, Jainism, Sikhism, Taoism, Shintoism, Confucianism, Zoroastrianism, Islam, Judaism, and Christianity, as well as some of the representative "archaic" religions of the world.

Credits: 3

### **PHIL 163 - Philosophy in Literature**

An examination and discussion of the philosophical content of poetry and prose of outstanding literary and philosophical merit.

Credits: 3

### **PHIL 170 - American Philosophy**

An investigation of the historical genesis of American culture through a reading of the prominent philosophical literature the culture has produced.

Credits: 3

### **PHIL 171 - Philosophy of Human Existence**

An investigation into and discussion of the central themes of existential philosophy. Philosophers such as Kierkegaard and Nietzsche will be studied in terms of their retrieval of the meaning of human existence.

Credits: 3

### **PHIL 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

### **PHIL 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-3

### **PHIL 198 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

### **PHIL 261 - Philosophy of Art**

Exploration of basic issues and philosophical views of the experience of the arts. This course aims at the understanding and enhancement of the experience of the arts, and at a thoughtful appraisal of the role of art in life.

#### **Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 3

### **PHIL 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

### **PHIL 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-3

### **PHIL 298 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1-3

### **PHIL 313 - Symbolic Logic**

An advanced investigation of logical thought through the use of special techniques of symbolization, the logic of unquantified and quantified propositions, the nature and limits of logical systems and the foundation of mathematics are some of the important topics considered.

#### **Prerequisites & Notes**

Logic or Algebra

Credits: 3

### **PHIL 324 - Environmental Ethics**

An analysis of environmental issues using a philosophical understanding of nature, with a consideration of the ethical responsibilities in the use of the earth's resources, behavior toward non-human species, and obligations toward future generations.

Credits: 3

### **PHIL 325 - Medical/Health Care Ethics**

A course in applied ethics about conceptual, ethical, and legal dilemmas in the institutional rights of patients, in the responsibilities of practitioners, in technological challenges to values in the modern age in caring for the seriously ill and the dying, and in rationing health care in a large society.

#### **Prerequisites & Notes**

Prefer to have students with background in health care fields, social and behavioral sciences, life sciences, pre-law, pre-med and philosophy

Credits: 3

### **PHIL 326 - Business Ethics**

A study of applied ethics about the conceptual and ethical dilemmas in the business professions. An examination of cultural challenges of social and moral responsibility in a technically sophisticated economic climate.

#### **Prerequisites & Notes**

Prefer students with background in business, accounting, management, marketing, finance, economics, communication and pre-law

Credits: 3

### **PHIL 331 - Social and Political Philosophy**

An in-depth study of central concepts and issues in social and political thought from multiple, diverse perspectives. Issues may include just and fair societies, theories of political obligation, and theories of citizenship and civic engagement with regard to *diverse, heterogeneous* communities.

Credits: 3

### **PHIL 335 - Philosophy of Law and Justice**

A study of multiple theories of law and the nature of law's relation to justice with special emphasis on a notion of justice for institutions.

#### **Prerequisites & Notes**

Prefer students with background in communication, history, philosophy, pre-law, government and public affairs and sociology

Credits: 3

### **PHIL 341 - Philosophy of Religion**

A critical inquiry into the nature and validity of religious belief and experience, its relation to other human interests, *its diversity*, and *its contemporary significance*.

#### **Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 3

### **PHIL 343 - Asian Philosophy**

An investigation of the central religions and philosophical ideas of Oriental cultures, focusing primarily on the cultures of India, China, Japan and Southeast Asia.

#### **Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 3

### **PHIL 351 - Philosophy of Natural Science**

An in-depth examination of the nature of natural science, including its aims, methods, central concepts, and limits and a thoughtful appraisal of its significance for the modern age.

**Prerequisites & Notes**

Two college-level courses in Natural Sciences and Mathematics

Credits: 3

**PHIL 371 - History of Western Philosophy I**

A study of major Western philosophers and philosophical issues from the ancient period and extending into the medieval period, designed to show how basic questions and concepts grew and how the works of these periods continue to provide insight and inspiration.

**Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 3

**PHIL 372 - History of Western Philosophy II**

A study of Western philosophy from the Renaissance through the beginning of the 19th century, tracing the basic concepts and problems of this period and showing how its thinkers continue to stimulate thought.

**Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 3

**PHIL 373 - Modern Authors and Issues**

Variable content within the modern contemporary period of philosophical thinking. Repeatable to 6 credits.

**Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 3

**PHIL 375 - Existentialism and Phenomenology**

A study of important twentieth century philosophers in terms of their attempt to establish a new approach to philosophy and their reaction and attempt to overcome "Western metaphysics."

**Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 3

**PHIL 376 - Analytic Philosophy**

An examination of the development and influence of Anglo-American analytic philosophy in the twentieth century. The focus will be on how analytic philosophers have used logic, the analysis of language, and scientific methodology in approaching traditional philosophical questions.



**Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 3

**PHIL 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

**PHIL 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-3

**PHIL 398 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

**PHIL 490 - Independent Study**

A special course designed primarily for students seeking knowledge in philosophy beyond course offerings. The student's interests, in consultation with department members, determines the topics covered. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

15 credits in Philosophy or permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1-3

**PHIL 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 1-3

**PHIL 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

One course in Philosophy or permission of the instructor

Credits: 1-3

### **PHYS 101 - Concepts of Science I/ Lab**

A descriptive and conceptual course in physics designed for the non-science major. Topics are selected from light, sound, motion, and astronomy to develop a necessary scientific attitude and background for today's society. There are two lectures and one-two hour laboratory per week.

Credits: 3

### **PHYS 102 - Concepts of Science II**

A descriptive and conceptual course in physics designed for the non-science major to study energy systems. Topics are selected from heat, electricity, magnetism, and the structure of matter and modern areas of physics, such as lasers, X-rays, and nuclear energy. The purpose of the course is to develop a positive scientific attitude and background for today's society. No laboratory.

Credits: 3

### **PHYS 103 - Investigating Matter and Energy/ Lab**

This is an activity-based and discussion-oriented course designed for the non-science major. The topics of light, matter, heat, and electricity have been selected to help students develop meaningful understanding of some powerful ideas that they can apply to a wide variety of interesting phenomena. Laboratory credit is given for taking this liberal studies enrichment course.

Credits: 3

### **PHYS 140 - Engineering Graphics I**

A beginning laboratory course in technological design and drawing. Topics: lettering, scales, geometric construction, orthographic sketching, and auxiliary views.

Credits: 2

### **PHYS 141 - Engineering Graphics II**

An advanced laboratory course in technological drawing and implementation. Topics: Vectors, graphing, nomography, isometric pictorials, technical illustration, computer graphics, and working drawings.

#### **Prerequisites & Notes**

PHYS 140

Credits: 1

### **PHYS 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PHYS 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PHYS 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PHYS 201 - Elements of Physics I/ Lab**

Introduction to physics at the algebra/trigonometry mathematical level. Topics include: mechanics, fluids, oscillations, waves, and sound. Course is especially designed for students enrolled in health science majors. Includes a lab.

Credits: 4

### **PHYS 202 - Elements of Physics II/ Lab**

Introduction to physics at the algebra/trigonometry mathematical level. Topics include: thermal physics, optics, electricity and magnetism, and nuclear physics. Course is especially designed for health science majors. Includes a lab.

#### **Prerequisites & Notes**

PHYS 201

Credits: 4

### **PHYS 204 - Environmental Biophysics**

An introductory course covering the energy problem and alternative solutions; radiation and its effects on man; the eye and vision; the ear, hearing and noise pollution; electrical power production alternatives and the environmental costs; some instruments used in biophysics and medicine.

Credits: 3

### **PHYS 211 - General Physics I/ Lab**

Introduction to physics using calculus and including extensive problem solving. Topics include mechanics statics, kinematics, kinetics, work-energy, rotational motion, and impulse-momentum. Includes a lab.

#### **Prerequisites & Notes**

Co-requisite: MATH 225

Credits: 4

### **PHYS 212 - General Physics II/ Lab**

This is a calculus based course, which follows PHYS 211. It develops the concepts of electric and magnetic fields. Topics covered are Gauss' Law, Ampere's Law, Biot's Law, Faraday's Law, electric charges and their dynamics, capacitance, resistance inductance, etc. Offered fall semester only. Includes a lab.

#### **Prerequisites & Notes**

Pre/Co-requisites: MATH 230 and PHYS 211

Credits: 3

### **PHYS 213 - General Physics III/ Lab**

Covers fluids, hydrostatics and hydro-dynamics, heat transfer and measurements, laws of thermodynamics, vibrating bodies, wave motion, light lenses and optical instruments, interference and diffraction, polarization. Includes a lab. Offered spring term only.

#### **Prerequisites & Notes**

PHYS 211

Credits: 4

### **PHYS 271 - Astronomy**

This course is designed for the general student. Recent findings in astronomy are discussed, i.e., black holes, quasars, etc. Other topics of interest are the evolution of stars, galaxies, and the universe since the big bang. No math required.

Credits: 3

### **PHYS 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PHYS 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PHYS 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PHYS 301 - Physical Chemistry I**

Thermodynamics and chemical kinetics. Cross listed as CHEM301.

#### **Prerequisites & Notes**

CHEM 108, 112, PHYS 212 or 213 and MATH 230

Credits: 3

### **PHYS 314 - Engineering Mechanics I: Statics**

Includes the application of equilibrium conditions to structures, trusses, frames and machines, and beams with concentrated and distributed loads.

#### **Prerequisites & Notes**

PHYS 212; Co-requisite: MATH 240

Credits: 3

### **PHYS 315 - Engineering Mechanics II: Dynamics**

Integrates the subject content of kinematics and kinetics that deal respectively with the description of motion of bodies and the causes for their motion.

#### **Prerequisites & Notes**

PHYS 314, MATH 301, or consent of the instructor

Credits: 3

### **PHYS 317 - Space Science**

Introductory course in space exploration. It emphasizes the evolution of the earth with respect to its neighbors in the solar system. Other topics covered are the earth's ionosphere, magnetosphere, hazards of satellite communication, and orbital dynamics.

**Prerequisites & Notes**

Advanced standing, completion of one course in Natural Science and Mathematics and two years of high school Algebra or its equivalent

Credits: 3

**PHYS 325 - Analog & Digital Electronics**

An introductory analog and digital electronics course designed primarily for science students. The course will start with an analysis of AC and DC circuits using Kirchhoff's laws and complex numbers. The analog part will include a study of discrete components including diodes, transistors, and SCRs as well as linear integrated circuits. The digital part will include basic gates as well as MSI and LSI circuits and will be center around interfacing computers to experiments.

**Prerequisites & Notes**

PHYS 212 or permission of the instructor

Credits: 3

**PHYS 331 - Mathematical Methods of Physics**

Applications in physical science and engineering of the following: vector analysis, complex variables, Fourier and Laplace transforms, linear algebra, and some boundary value problems. Cross-linked as MATH 331. This course may be counted as a physics course or as a mathematics course, but not both.

**Prerequisites & Notes**

PHYS 211 and MATH 240; Co-requisite: MATH 231

Credits: 3

**PHYS 371 - Physical Optics**

This is a physical optics course dealing with the nature and transmission of light. Topics covered will include the propagation of light, coherence, interference, diffraction, Maxwell's Equations, optics of solids, thermal radiation, optical spectra and lasers.

**Prerequisites & Notes**

PHYS 212, 213

Credits: 3

**PHYS 375 - Thermal Physics**

This is an introductory course in thermodynamics and statistical mechanics, with application to both physics and engineering.

**Prerequisites & Notes**

PHYS 213 AND MATH 231

Credits: 3

## **PHYS 381 - Advanced Physics Laboratory**

Selected experiments in all branches of physics that are of a more advanced grade than those given at the general or intermediate level. Each experiment will be an extended piece of careful, thorough work, culminating in a detailed report.

### **Prerequisites & Notes**

PHYS 211, 212, 213 and junior standing

Credits: 2

## **PHYS 382 - Optics Laboratory**

This course will provide in depth experience in laboratory techniques, data acquisition and analysis in the field of Optical Physics. Experiments are of a more advanced grade than those given at the general or intermediate level. Each experiment will be an extended piece of careful, thorough work, culminating in a detailed report. Appropriate for students majoring in the Biological, Earth, Environmental, Health, Mathematics and Physical sciences.

### **Prerequisites & Notes**

PHYS, 211, 212, 213 or 201 and 202, a course in calculus and junior standing or permission of the instructor

Credits: 2

## **PHYS 385 - Computational Physics**

An introduction to scientific computational methods and their application in physics. A range of numerical and symbolic computing techniques will be explored, including numerical integration, matrix methods, differential equations, random walks, and Monte Carlo simulations. These techniques together with visualization methods will be used to solve problems taken from different physics topics, such as classical mechanics, electricity and magnetism, thermodynamics, quantum mechanics, and biophysics.

### **Prerequisites & Notes**

PHYS 213, MATH 240, CpSc 140, or consent of the instructor.

Credits: 3

## **PHYS 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

## **PHYS 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PHYS 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PHYS 410 - Electricity and Magnetism**

Electric fields and potentials of charge distributions and polarized materials, magnetic fields and vector potentials of current distributions and magnetized materials; electric and magnetic energies and application of Maxwell's equations.

#### **Prerequisites & Notes**

PHYS 212, 331

Credits: 3

### **PHYS 411 - Modern Physics**

An introductory survey into modern physics. Major topic areas include: relativity theory, old quantum theory, new quantum theory, solid state theory, nuclear physics, and particle physics.

#### **Prerequisites & Notes**

PHYS 212, 213; Co-requisites: MATH 240 and PHYS 331

Credits: 4

### **PHYS 421 - Materials Safety and Equipment Overview for Nanofabrication - NMT 311**

This course provides an overview of basic nanofabrication processing equipment and materials handling procedures with a focus on safety, environment, and health issues. Topics covered include: cleanroom operation, environmental, safety, and health issues, vacuum pump systems operation, environmental safety and health issues (covering direct drive mechanical, roots blowers, turbomolecular, and dry mechanical systems); thermal- processing equipment operation, safety, environmental, and health issues (covering horizontal, vertical, rapid thermal annealing tools); chemical vapor deposition system operation, safety, environmental, and health issues (covering gas delivery, corrosive and flammable gas storage and plumbing, regulators, and mass flow controllers); and vacuum deposition/etching system operation, safety, environment, and health issues (covering microwave and RF power supplies and tuners, heating and cooling units, vacuum gauges, valves, and process controllers). Specific materials handling issues include those arising from using deionization water, solvents, cleansers, organic materials, ion implementation sources, diffusion sources, photoresists, developers, metal dielectrics and toxic, flammable, corrosive and high purity gases as well as packaging materials.

#### **Prerequisites & Notes**

Acceptance into the NMT Capstone Semester at Penn State

Credits: 3

### **PHYS 422 - Basic Nanofabrication Processes - NMT 312**



The course provides an overview of basic processing steps used in all applications of nanofabrication. Both top-down and bottom-up nanofabrication are included. The majority of the course details a step-by-step description of the equipment and processes needed to fabricate devices and structures such as bio-chips, CMOS transistors, power devices, microelectromechanical (MEM) devices, and opto-electronic structures. Students learn the similarities and differences in both the equipment and process flows needed in fabricating all of these various structures.

**Prerequisites & Notes**

Acceptance into the NMT Capstone Semester at Penn State

Credits: 3

**PHYS 423 - Thin Films in Nanofabrication - NMT 313**

This course covers thin film deposition and etching practices in nanofabrication. The deposition techniques addressed in the first part of the course include atmospheric, low pressure, and plasma enhanced chemical vapor deposition and sputtering, thermal evaporation, and beam evaporation physical vapor deposition. Also included are self-assembling molecule based techniques. Materials considered include organics, dielectrics (e.g., nitrides, oxides), polysilicon (doped and undoped), metals (e.g., aluminum, tungsten, copper), adhesion promoters and diffusion barriers. The second part of the course focuses on etching processes and emphasizes reactive ion etching (single wafer, batch), high-ion-density reactors, ion beam etching and wet chemical etching. Students receive hands-on experience in depositing and etching dielectric, semiconductor, and metal materials using state-of-the-art tools and experience practicing the steps critical to micro- and nanofabrication of structures used in a variety of fields from biotechnology and the biomedical fields to microelectronics.

**Prerequisites & Notes**

Acceptance into the NMT Capstone Semester at Penn State

Credits: 3

**PHYS 424 - Advanced Lithography and Dielectrics Nanofabrication - NMT 314**

This course covers all aspects of lithography from design and mask fabrication to pattern transfer and inspection. The course is divided into three major sections. The first section describes the lithographic process from substrate preparation to exposure. The second section examines the processes from development through inspection (both before and after pattern transfer). This section introduces optical masks, aligners, steppers and scanners. In addition, critical dimension (CD) and profile control of photoresists are investigated. The last section discusses advances in optical lithographic techniques such as phase shifting masks and illumination schemes as well as molecular ruler, e-beam, x-ray, EUV, and ion beam lithography.

**Prerequisites & Notes**

Acceptance into the NMT Capstone Semester at Penn State

Credits: 3

**PHYS 425 - Materials Modification in Nanofabrication - NMT 315**

This course covers in detail the processing steps used in modifying material properties in nanofabrication. Included are chemical reaction, growth and annealing processes. The impact of thermal processing and thermal processing on defects, gettering, and impurities and overall electrical, mechanical, optical, and chemical properties are studied. The student grows and measures gate and field oxides, implants and activates source and drain regions, and evaluates thermal budget requirements using state-of-the-art tools. Included also are other modification technologies such as ion implantation, diffusion and chemical surface preparation and treatment. Substrate preparation processing such as

slicing, etching, polishing and epitaxial growth are also covered.

**Prerequisites & Notes**

Acceptance into the NMT Capstone Semester at Penn State

Credits: 3

**PHYS 426 - Characterization, Packaging and Testing of Nanofabrication Structures - NMT 316**

This course examines a variety of measurements and techniques essential for controlling micro- and nanofabrication processes. Monitoring techniques such as residual gas analysis (RGA), optical emission spectroscopy (OES) and end point detection are discussed. Characterization techniques such as scanning electron microscopy x-ray photoelectron spectroscopy, atomic probe methods advanced optical microscopy, optical thin film measurements, ellipsometry, and resistivity/conductivity measurements are introduced and tied to process control. Basic measurements for yield analysis and process control are also stressed. These include breakdown measurements, junction testing, and capacitance-voltage and current voltage characterization. In addition, the characteristics of some simple bio-chip structures and MEMs devices are obtained and discussed. The student learns about the manufacturing issues involved in interconnects, materials compatibility and final device assembly. Aluminum, refractory metals and plastic fabrication techniques and characterization are discussed in detail along with topics such as diffusion barriers, contact resistance, electro migration, corrosion, and adhesion. The importance of planarization techniques such as deposition/etchback and chemical/mechanical polishing are emphasized. Lastly, procedures such as die separation, bonding, and sealing and final test for both conventional Cs and MEMs and biomedical devices are examined.

**Prerequisites & Notes**

Acceptance into the NMT Capstone Semester at Penn State

Credits: 3

**PHYS 480 - Quantum**

In this introductory course in quantum mechanics, the foundations and origins will be covered. Other topics will include wave packets, the uncertainty principle, the Schroedinger equation, operator formalism, eigen functions, spherically symmetric systems, angular momentum, spin and scattering theory.

**Prerequisites & Notes**

PHYS 331, 411 and MATH 240; Co-requisite: MATH 301

Credits: 3

**PHYS 490 - Independent Study**

Investigation of the theoretical or experimental area following a plan or proposal initiated by the student and approved by the major advisor.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

### **PHYS 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PHYS 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 1 to 3

### **PHYS 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum

Credits: 3

### **PHYS 595 - Workshop**

Varies.

Credits: 3

### **PHYS 598 - Selected Topic**

Varies.

Credits: 3

### **PHYS 700 - Independent Study**

Varies.

Credits: 3

### **POLS 101 - American National Government**

A survey of American national politics, emphasis on the constitution, parties, interest groups, elections, organization and structure of government.

Credits: 3

### **POLS 103 - International Relations**

An overview of the politics of various governments; the nature of relations among nations; a study of problems such as terrorism and multinationals as political participants.

Credits: 3

### **POLS 190 - Experimental**

A one-time experimental course offering.

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 0

### **POLS 195 - Workshop**

Special topics of interest to undergraduates and selected members of the community.

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: Variable

### **POLS 198 - Selected Topics**

The in-depth examination of a specific topic to be determined by the department in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 0

### **POLS 200 - State and Local Government**

Examines state levels of government. Emphasis is on constitutions, parties and interest groups, elections, organization and structure of government.

Credits: 3

### **POLS 215 - Introduction to Political Theory**

An introduction to classical and modern theories of politics, governments, and ideologies.

FORMER COURSE NUMBER 105

Credits: 3

### **POLS 220 - Foreign Policy**

The study of selected instruments of foreign policy, how it is formulated and implemented; the focus is on the U.S.

**Prerequisites & Notes**

Sophomore class standing

Credits: 3

**POLS 224 - Civil Liberties**

An examination of the development, nature and content of civil liberties in the United States.

Credits: 3

**POLS 255 - Introduction to Public Policy**

The study and evaluation of the formulation, enactment, and implementation of public policies.

Credits: 3

**POLS 263 - Introduction to Comparative Politics**

The stress is on descriptions and conceptions of the state and political institutions in the non-Western and Western worlds; with attention on policy-making, national issues, and systems.

Credits: 3

**POLS 290 - Experimental**

A one time experimental course offering.

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 0

**POLS 295 - Workshop**

Special topics of interest to undergraduates and selected members of the community.

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: Variable

**POLS 298 - Selected Topics**

The in-depth examination of a specific topic to be determined by the department in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 0

### **POLS 310 - Research Methods**

An examination of the foundations of systematic research, techniques of data collection and methods of data analysis.

Credits: 3

### **POLS 321 - The Presidency**

The study and evaluation of executive leadership in modern governments; the roles, functions and types of presidential leaders.

Credits: 3

### **POLS 322 - The United Nations and International Law**

An examination of the development, structure, and operations of the United Nations system and the fundamentals of public international law.

#### **Prerequisites & Notes**

Sophomore class standing

Credits: 3

### **POLS 323 - The Courts**

The examination of judicial structures, functions and organizations; emphasis on judicial decision-making and policies.

Credits: 3

### **POLS 325 - The Congress**

The study of legislative structures, functions and organizations; focus on legislative elections, committees, and decision-making.

Credits: 3

### **POLS 327 - Public Opinion and Political Attitudes**

An examination of the nature, origins, and structures of political attitudes.

#### **Prerequisites & Notes**

3 credits of Political Science or permission of the instructor

Credits: 3

### **POLS 329 - Political Learning**

The course examines the process by which the transmission of political values, attitudes, perceptions and behaviors are undertaken in different political systems.

Credits: 3

### **POLS 331 - Seminar in Japanese Politics**

This course explores Japan's recent political history, and examines the ways that leaders and citizens interact through political institutions. We will assess policy making, political leadership, political culture, reform, social change, and Japan's foreign relations.

#### **Prerequisites & Notes**

Sophomore class standing

Credits: 3

### **POLS 333 - The Political Film**

The Political Film will be presented as an expression of social concerns in our society. Individual films will be evaluated as vehicles, which can influence people by disseminating ideas, convey points of view and comment on matters of political controversy.

Credits: 3

### **POLS 340 - The Historical and Political Legacies of the Vietnam Era**

Examines the roots, nature, and course of the war in Vietnam and the accompanying cultural and political developments in the U.S. with a particular concern for how the war influences our contemporary social and political context. Cross-listed as HIST 340.

Credits: 3

### **POLS 341 - Classical Political Thought**

The examination and evaluation of political theorists to approximately the year 1500; Plato, Aristotle, Augustine, Aquinas and others.

Credits: 3

### **POLS 342 - Civil Rights Seminar**

An examination of politics and practice of transnational terrorism, as well as alternative policy responses to transnational terrorism. topics will include an overview of the history and theory of terrorism as a political tactic, the issues motivating its use by contemporary terrorist organizations, the structure and tactics of terrorist networks, and the connections between states, terrorist networks, and transnational organized crime.

Credits: 3

### **POLS 343 - Modern Political Thought**

The examination and evaluation of political theories from the year 1500 to approximately 1850: Machiavelli, Hobbes, Locke, Rousseau, and others.

Credits: 3

### **POLS 345 - Contemporary Political Thought**

The study of contemporary political theory from Marx and Mill to the present period. The course will cover such theorists as Lenin, Marcuse, Freud, Arendt, Habermas, Niebuhr, and others.

Credits: 3

### **POLS 348 - The Holocaust: Genocide and Political Violence**

An examination of the Holocaust as the model case of genocide in the modern world. The course will examine the comparability of the Holocaust to other incidences of genocide and its applicability to contemporary political concerns.

Credits: 3

### **POLS 349 - Utopian Experiments: Issues of Gender and Power**

This course will examine the various alternative plans for the intentional restructuring of society as exhibited in the works of utopian theorists.

Credits: 3

### **POLS 350 - Transnational Terrorism**

An examination of politics and practice of transnational terrorism, as well as alternative policy responses to transnational terrorism. topics will include an overview of the history and theory of terrorism as a political tactic, the issues motivating its use by contemporary terrorist organizations, the structure and tactics of terrorist networks, and the connections between states, terrorist networks, and transnational organized crime.

Credits: 3

### **POLS 351 - Politics of Race**

This course is an exploration of whether and how racial and ethnic minorities are able to organize effectively and press their demands through the American political system. This course will focus on the political behavior of minority citizens, the relative strength and effect of these groups at the polls and in political office, the theory and practice of group formation as it applies to minority groups, the responsiveness of elected officials, and the legal and constitutional obstacles and instruments that provide context and shape these phenomena.

Credits: 3

### **POLS 354 - Seminar in Religion and Politics**

This course is intended to help students understand the variety of religious voices in American politics and to acquaint students with the significance and variability of religious influence on contemporary American political life, i.e. public



policy and individual political choices. The term "religion" is defined broadly to include formal theological creeds as well as the social beliefs, organizations, and subcultures associated with various religious communities. The central goal of this course is to understand how religion affects politics (and vice versa). Specifically, the course will explore the effects of the diverse religious traditions in America on American political history, voting, lobbying, political mobilization, political culture, and international engagement. A sampling of questions to be addressed follows: What has been the relative impact of various religions on American politics? How do religious actors translate their values into action? In what ways is the impact of religion direct? Indirect? How does the nature of the environment (domestic and international) affect the ability of religious actors to wield influence?

Credits: 3

### **POLS 356 - Gay and Lesbian Politics**

This course will seek to understand how and why the battle over gay rights has come to occupy such a prominent place in our society and what this battle tells us about politics more generally. Although the course is centered on the politics of gay rights in the American context, we will also compare the American experience to those of other nations.

Credits: 3

### **POLS 359 - Policy Analysis and Evaluation**

An examination of the theoretical and practical issues associated with the application of analytic and evaluative techniques to selected public policy problems and programs.

Credits: 3

### **POLS 360 - Parties and Elections**

An examination of the structures and functions of political parties in our electoral system.

Credits: 3

### **POLS 365 - International Political Economy**

The in-depth analysis of the political relationships among nation-states.

#### **Prerequisites & Notes**

Sophomore class standing

Credits: 3

### **POLS 366 - Seminar in Chinese Politics**

This course examines China's recent political history, the structures and functions of its political system, current political, social and economic developments in China, and assessments of China's place in the changing global order.

Credits: 3

### **POLS 367 - National and International Security: Problems and Issues**

National security problems combine aspects of American government, international relations, game theory, and logistical problems derived from research development priorities, economics. The course introduces the major issues of our time such as arms control, disarmament, the nature of war, the reality of decision-making and various case studies.

**Prerequisites & Notes**

Sophomore class standing

Credits: 3

**POLS 369 - Politics of Developing Areas**

A developmental approach to the comparative study of the primary functions, structures and capabilities of various industrializing political systems such as India, China, Mexico, Brazil, Tanzania.

**Prerequisites & Notes**

Sophomore class standing

Credits: 3

**POLS 370 - Latin American Politics and Development**

This is an interdisciplinary course designed to give students a broad understanding of the historical, contemporary social (including gender, race, ethnicity, religion, etc.), economic, and in particular, political forces that shape Latin America. A number of different perspectives will be utilized to understand and explain the current state of Latin American political and economic development.

Credits: 3

**POLS 371 - Politics in Asia**

This course examines the diverse people, politics, development strategies and national security dynamics of Asian countries.

**Prerequisites & Notes**

Sophomore class standing

Credits: 3

**POLS 375 - Women and Politics**

The course will examine the effect of socialization and the impact of culture on women, gender differences in patterns of political participation; legal, political and social rights of women; and the effects of the political system upon the lives of women and their families.

Credits: 3

**POLS 390 - Experimental**

A one time experimental course offering.

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 0

### **POLS 395 - workshop**

Special topics of interest to undergraduates and selected members of the community.

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: Variable

### **POLS 398 - Selected Topics**

The in-depth examination of a specific topic to be determined by the department in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 0

### **POLS 403 - Constitutional Law**

The case study and analysis of the development and growth of constitutions through judicial interpretation.

Credits: 3

### **POLS 444 - Capstone: Political Analysis**

An Examination of the theoretical and practical issues associated with the application of analytic and evaluative techniques to selected political institutions, behaviors, or policies. Students will be assessed on their accomplishment of outcomes expected of Political Science graduates.

#### **Prerequisites & Notes**

Students must have completed POLS 310- Research Methods

Credits: 3

### **POLS 450 - Internship**

Varies

Credits: 12

### **POLS 451 - Harrisburg Internship**

Assignment as an intern with a governmental agency in the state capital in Harrisburg, Pa. Open to all students at Slippery Rock University.

**Prerequisites & Notes**

Selection by competitive process

Credits: 12

**POLS 452 - Harrisburg Internship Project**

A research project developed by the intern and approved by the Harrisburg internship coordinator on some aspect of government activities or public policy.

**Prerequisites & Notes**

Selection for the Harrisburg Internship Program

Credits: 3

**POLS 454 - Harrisburg Internship Seminar**

Weekly seminar composed of all interns in the program and taught by the Harrisburg internship coordinator. Speakers from state government will address the seminar and the seminar will participate in several exercises designed to increase skills in governmental processes.

**Prerequisites & Notes**

Selection as intern in the Harrisburg Internship Program

Credits: 3

**POLS 490 - Independent Study**

In-depth reading and research in an area of particular interest to the student, with the guidance of a faculty member. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

**POLS 495 - Workshop**

Special topics of interest to undergraduates and selected members of the community.

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: Variable

**POLS 498 - Selected Topics**

The in-depth examination of a specific topic to be determined by the department in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 0

### **PREE 110 - Foundations of Parks and Recreation I**

This course is designed to provide the student with the conceptual foundations of recreation and leisure for all populations and settings. The course includes a historical and philosophical background of the leisure movement including an understanding of the psychological, sociological and physiological implications, as well as the impact of technological, economic and political developments and their impact on recreation and leisure in a contemporary society. In addition, the elements of recreation and leisure will be reviewed through the lifespan and with regard to their relationship to attitudes, values, behaviors and the natural environment. Students will be introduced to the standards of the profession and professional expectations will be covered.

Credits: 3

### **PREE 111 - Foundations of Parks and Recreation II**

This course is a sequel to Foundations of Parks and Recreation I and will continue to examine the historical and philosophical background of the leisure movement with regard to recreation organizations and services. Professional preparation in relation to perceived and actual needs concerning risk management, research and evaluation, information technology, ecological considerations and sustainable planning and management practices in the parks and recreation field will also be explored.

Credits: 3

### **PREE 120 - Inclusive Leisure Services**

This course is designed to introduce the student to inclusive leisure services. The course reviews attitudes regarding people with disabilities, barriers to inclusion, enabling terminology, and legislative initiatives, which promote inclusion. The ADA will be highlighted along with information on various disabling conditions. The goal of this course is to facilitate an increased awareness of people with disabilities and considerations for providing inclusive services.

Credits: 3

### **PREE 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PREE 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

#### **Prerequisites & Notes**

Varies

Credits: 3

### **PREE 198 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

Varies

Credits: 3

### **PREE 210 - Resources for Outdoor Programming**

The outdoors was the first classroom and many lessons are still taught in and for the outdoors. This course is designed to provide anyone working in a recreational or park setting with methods and materials to use to achieve a variety of educational and recreational goals. Emphasis will be placed on identifying and using existing instructional materials, in addition to developing personal materials and lessons for outdoor programming.

Credits: 3

### **PREE 211 - Outdoor Leadership**

This course is a study of the principles and practices essential for outdoor leaders with emphasis on the development of KSAs to lead groups into the wild outdoors.

Credits: 3

### **PREE 214 - Parks and Recreation Planning**

This course provides a comprehensive introduction to the field of recreation planning. Class sessions will focus on a variety of planning approaches and tools, which are utilized throughout the field of recreation. Students will gain familiarity with these planning tools as they engage in an abbreviated campus-wide study focused on the availability of recreational resources to SRU students.

#### **Prerequisites & Notes**

PREE110

Credits: 3

### **PREE 215 - Park and Recreation Public Relations**

The theory, principles and practices of public relations of value to parks and recreation personnel including oral, written and graphic presentations useful in public relations and interpretive efforts.

#### **Prerequisites & Notes**

PREE 110

Credits: 3

### **PREE 220 - Therapeutic Recreation Services**

Introduces students to the general field of therapeutic recreation and provides an introduction to various disabilities and how the TR process applies.

#### **Prerequisites & Notes**

PREE 120

Credits: 3

### **PREE 222 - Recreation Programming and Leadership**

This course is designed to provide a sound basis of learning and practical methods in the realm of recreation programming and leadership. It includes practical approaches to program design, sequencing program experiences, processing experiences, assessment and evaluation and examines the needs of leaders as well as participants in terms of communication skills and preferred learning styles. Participant behaviors and the important traits of a positive leader will also be examined.

#### **Prerequisites & Notes**

PREE 110

Credits: 3

### **PREE 232 - Therapeutic Recreation for People with Physical Disabilities**

This course will provide information on various physical disabilities and the potential application of TR services with individuals with physical disabilities. The incidence, prevalence, etiology and treatment for each disability will be presented along with implications for TR practice.

#### **Prerequisites & Notes**

PREE 120

Credits: 3

### **PREE 233 - Therapeutic Recreation for People with Mental Health and Psychosocial Disorders**

This course will provide information on various mental health impairments and addictive and social disorders. The incidence, prevalence, etiology and treatment for each condition will be presented along with implications for TR practice.

#### **Prerequisites & Notes**

PREE 120

Credits: 3

### **PREE 271 - Law Enforcement Firearms**

This course provides basic orientation to and qualification with the approved handgun and familiarization with the 12 gauge shotgun including safety and “shoot-no shoot” situations.

Credits: 3

### **PREE 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **PREE 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PREE 298 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PREE 304 - Search and Rescue/Wilderness Medicine**

This course will provide basic and intermediate instruction in search and rescue techniques and emergency medical procedures in wilderness settings. Students will be introduced to the various evacuation and stabilization procedures that are commonly implemented in emergency situations.

Credits: 3

### **PREE 311 - Principles of Commercial Recreation/Tourism**

A study of the various forms of commercial recreation, business and facilities providing recreational opportunities.

Credits: 3

### **PREE 312 - Commercial Recreational Feasibility Studies**

This course is a study of financial, marketing, and operations management concepts that go into a feasibility study of a commercial recreation business.

Credits: 3



### **PREE 314 - Clinical Aspects of Therapeutic Recreation**

This course provides a more in-depth look at TR including professional standards of practice, health care accreditation, documentation methods, application of activity analysis in treatment planning.

#### **Prerequisites & Notes**

PREE 220

Credits: 3

### **PREE 315 - Recreation Resource Planning and Analysis**

This course is designed specifically for student in the Park and Resource Management track. It is designed to provide the student with application of the planning process, from site and program analysis into planning recreational facilities. students will use a variety of planning tools and on-line analysis resources, as well as a variety of professional recreation planning frameworks.

#### **Prerequisites & Notes**

PREE 214

Credits: 3

### **PREE 316 - Management of Leisure Services and Commercial Facilities**

A study of the design, operation and maintenance of selected park and recreation facilities.

Credits: 3

### **PREE 317 - Organization and Management of Therapeutic Recreation Practice**

This course is designed to provide therapeutic recreation (TR) majors with the knowledge and skills required to effectively supervise and manage resources within various health and human service settings. Emphasis is placed on accreditation standards, legislative and regulatory requirements, public relations and marketing, strategic planning and decision making, quality improvement and risk management practices, fiscal planning and budgeting, and human resource management.

#### **Prerequisites & Notes**

PREE 220

Credits: 3

### **PREE 318 - Park and Recreation Administration**

The organization and administration of parks and recreation services, including organizational management, personnel practices and labor relations, financial and business procedures and legal aspects.

Credits: 3

### **PREE 319 - Client Assessment in Therapeutic Recreation**

Course designed to familiarize the student with the overall concept of assessment within the field of therapeutic recreation. Interviewing skills, analyzing assessment procedures, source and processes will be studied. The relationship between assessment as a component of treatment program planning will be explored.

**Prerequisites & Notes**

PREE 220, 229

Credits: 3

**PREE 320 - Therapeutic Recreation Program Design**

This course focuses on techniques of therapeutic recreational program planning interventions and leadership strategies to meet the needs of persons with disabilities and disorders.

**Prerequisites & Notes**

PREE 220, 229 and 319 or permission of the instructor

Credits: 3

**PREE 341 - Challenges to a Sustainable Future**

This course explores the broad concept of "sustainability." We will explore our own thinking on sustainability, mainstream opinions, as well as some alternative voices. The many facets of sustainability are recognized, and certain aspects are selected for more in-depth analysis.

Credits: 3

**PREE 342 - Group Facilitation and Leadership**

This course will cover the concepts related to working with groups as a facilitator. Hands-on approaches to program design, sequencing activities and processing experiences will be examined. Students will facilitate their classmates through a group development experience making use of SRU's low and high challenge courses and the Leadership Reaction Center.

Credits: 3

**PREE 347 - Interpretive Methods and Programming**

A study of the principles and methods to interpret natural and cultural history in parks and other outdoor settings.

Credits: 3

**PREE 348 - Natural History of Ecosystems I**

This field oriented course is designed to integrate basic scientific inquiry and ecological field techniques to develop skills of analysis, synthesis and evaluation of scientific information for the purpose of environmental and resource management. Results of field investigations are then applied to relevant ecological problems and management objectives for the purpose of environmental decision making.

**Prerequisites & Notes**

PREE 160 or 170

Credits: 3

### **PREE 349 - Natural History of Ecosystems II**

This course provides basic natural history information and skills for environmental education and interpretative programming/fundamentals of birding, plant and animal identification, as well as sky and landscape interpretation are among the topics covered. Field collection, specimen preservation, and state and federal laws regulating field studies and possession of flora and fauna will be discussed.

#### **Prerequisites & Notes**

PREE 348

Credits: 3

### **PREE 351 - Practicum**

Observation and participation in parks and recreation or environmental education activities. Cross listed as PREE352.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 3

### **PREE 352 - Practicum**

Observation and participation in parks and recreation or environmental education activities. Cross listed as PREE351.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 3

### **PREE 361 - Environmental Teaching**

This course is a study of educational methodology using a total environmental perspective. Field trips required.

Credits: 3

### **PREE 371 - Fundamentals of National Park Service Law Enforcement**

This course covers the legal and administrative fundamentals of National Park Service law enforcement including federal law and NPS policies and guidelines.

Credits: 3

### **PREE 372 - Visitor Services Management**

A study of visitor services including information, safety, rescue and law enforcement services.

Credits: 3

### **PREE 374 - Federal Law & Park Policy**

This course is designed to provide students with advanced knowledge of federal law, policies, and procedures. Students will develop an in-depth understanding of Federal policy for various land management agencies with emphasis on National Park Service policy. The course will also cover legal updates in park law enforcement.

Credits: 3

### **PREE 377 - Cultural Resources Management**

This course provides a comprehensive introduction to the management of cultural and historic resources. The course examines the goals, legislation, and methodologies related to cultural resources management, research and programming.

Credits: 3

### **PREE 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PREE 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PREE 398 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PREE 412 - Open Space Planning**

Fundamentals of open space planning including feasibility studies, resource analysis, site analysis and planning and design fundamentals. Field trips required.

Credits: 3

### **PREE 413 - Site and Building Feasibility Studies**

This course is designed to develop a comprehensive feasibility study for selected land-based sustainable enterprises. The course will include an on-site inventory and analysis, market evaluation, preliminary planning and cost-return analysis. Three project tracks recreation resource management, community development and sustainable agriculture.

Credits: 3

### **PREE 415 - Challenges and Trends in Parks and Recreation**

An integrative course for detailed study of current issues in parks and recreation with emphasis on unique and imaginative solutions to the challenges facing the recreation/parks profession. Must be a senior to enroll.

Credits: 3

### **PREE 416 - Group Recreation Programming**

This course examines the planning, organization, pricing, and evaluation of recreation programs, activities, and special events at various four season resorts, state and national parks, and residential camps and camping facilities. This course will also analyze the planning, developing, marketing, administration, and implementation of group recreation and special events.

Credits: 3

### **PREE 417 - Hotel/Lodging & Hospitality Management**

This course is a study of the management and operation of a variety of departments/divisions of a hotel/resort.

Credits: 3

### **PREE 420 - Therapeutic Recreation for Elderly Populations**

The course will provide an overview of the aging process as it relates to therapeutic recreation service provision and leisure participation. It will focus on developmental issues, including psychosocial, biological and economic issues in later life. The course addresses these issues as they occur across the lifespan, from mid-adulthood to senescence.

#### **Prerequisites & Notes**

PREE 120, 220 or permission of the instructor.

Credits: 3

### **PREE 422 - Leisure Education Strategies**

An investigation of the historical, philosophical, psychological and educational foundations of leisure education. The functions of leisure counseling, including a variety of instruments and techniques appropriate for a variety of publics, is examined.

#### **Prerequisites & Notes**

PREE 220, 229, 319 and 320

Credits: 3

### **PREE 423 - Therapeutic Recreation Interventions**

This course will offer an overview of several different Therapeutic Recreation interventions and techniques, including leisure education strategies. The primary focus of this course will be on the application and implementation of therapeutic recreation interventions.

#### **Prerequisites & Notes**

PREE 220, 229, 232, 233, 320 and 319 or permission of the instructor

Credits: 3

### **PREE 436 - Event Planning & Tournament Structure**

A study of the organization, administration and supervision of special events, business/organization meetings, conferences, and tournaments held in hotels, resorts, athletic clubs, and communities.

Credits: 3

### **PREE 450 - Internship**

A supervised off-campus work experience in an appropriate aspect of parks and recreation or environmental education work. Open only to PREE majors with advanced standing.

Credits: 12

### **PREE 455 - Student Teaching - Environmental Education**

Under the guidance of a cooperating teacher and university supervisor, students engage in two, eight week assignments on a full-time basis in specified school districts and attend scheduled seminars. Supervisors assign additional requirements.

Credits: 12, 6, 3

### **PREE 471 - NPS Law Enforcement**

This course provides an overview of NPS law enforcement policies and procedures, relevant federal laws, Titles 36 and 50, CFR, and courtroom procedures.

Credits: 3

### **PREE 472 - Park Law Enforcement**

This course provides basic law enforcement skills essential for the park law enforcement ranger.

Credits: 3

### **PREE 475 - Park and Resource Management**

The principles and practices of recreational land and water management. Field trips required.

**Prerequisites & Notes**

PREE 170

Credits: 3

**PREE 477 - Parks, Wildlife and Wildlife Management**

Course will cover basic concepts related to wildlife management and wild land management practices for terrestrial and aquatic systems. Fire management as it relates to wildlife and wild lands will also be examined.

**Prerequisites & Notes**

PREE 348 and PREE 349

Credits: 3

**PREE 490 - Independent Study**

A special study opportunity for students to investigate in-depth, approved topics in recreation or environmental studies. Topic and credit established by student and supervising instructor.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

Permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

**PREE 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**PREE 498 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

**PROF 100 - Personal Financial Planning**

All individuals encounter challenging financial decisions. This course will introduce a wide variety of topics, such as cash and debt management, credit rating, insurance policies, housing decisions, taxes, investments retirement, and estate planning. In addition, students will apply financial planning principles to diverse populations.

Credits: 3

### **PROF 101 - Taxes in America**

In America, our income is taxed when we earn it and when we spend it. Our property is taxed when we own it and sometimes even when we give it away! We pay taxes to our local, state, and federal governments. Learn where you tax dollars go, how they are used, and how you influence tax legislation. Evaluate how our taxes affect diverse populations in American society.

Credits: 3

### **PROF 103 - Contemporary Social Problems**

An analysis of major social problems confronting modern society.

Credits: 3

### **PROF 105 - Economics of Social Issues**

As an introductory course, it is intended to provide an understanding of how our economic system works. It examines the forces that determine what, how much and who obtains the outputs of the economy, and explains the issues behind current economic problems. A framework of building blocks from micro, macro, and international economics is developed to enable students to comprehend the differences among alternative solutions and to understand the implications of policy issues constantly confronting a mixed dynamic economy.

Credits: 3

### **PROF 106 - Race and Ethnic Diversity in the USA**

An introduction to racial and ethnic diversity in the U.S.A., with focus on trends in immigration, demographics, socio-cultural dynamics and issues, past and present.

Credits: 3

### **PROF 120 - Civic Engagement and Community Decision-Making**

An introduction to the policy making process at the community level and the role each citizen plays in the formation and modification of those policies. Students will gain introductory skills in policy analysis, street level politics, and community organizing for social change.

Credits: 3

### **PROF 130 - Dynamics of Global Commerce**

Exploration of the challenges involved in international business including discussion of cultural, political, social, and economic aspects of doing business abroad. Theories of international business management and international trade.

Credits: 3

### **PROF 190 - Experimental**



A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PROF 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PROF 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PROF 201 - Principles of Sociology**

Basic concepts of social behavior, group structure and group processes.

Credits: 3

### **PROF 202 - Introduction to Anthropology**

Human beings as cultural and biological entities. Emphasis is on primitive and peasant societies.

Credits: 3

### **PROF 205 - Accounting for Decision Makers**

Emphasizes practical use of accounting information to support decision making by those in fields such as business, sports, resort management, government, education, and not-for-profit. Overview of financial and managerial accounting from a user's perspective, including use and analysis of financial statements, internal control, budget preparation, and cost and revenues behavior patterns. (For non-business majors)

Credits: 3

### **PROF 211 - Physical Anthropology**

This course provides an understanding of the place of the human species within the biological system. It stresses the concepts and processes of evolution and emphasizes the study of human and non-human primates as seen in the fossil record as well as through study of genetics and behavior.

Credits: 3

### **PROF 212 - Archaeology/World Prehistory**

A discussion of culture history around the world based on archaeological evidence. It begins with early signs of culture called the Paleolithic or Old Stone Age of Africa, Asia, Europe and America (where it is named Paleo Indian), and concludes with the rise of complex, stratified cultures based on agriculture in the Middle East, America, and East Asia.

Credits: 3

### **PROF 220 - Introduction to Nonprofit Leadership**

An introduction to the nonprofit sector; emphasis on leadership and decision-making in rapidly growing areas of health and human service, cultural, environmental, educational, charitable, and religious organizations.

Credits: 3

### **PROF 226 - Population and Society**

Sociological/anthropological analysis of selected population trends, problems and controversies in the contemporary world-both literate and non-literate.

Credits: 3

### **PROF 250 - Introduction to Institutions and Leadership**

A survey of the nature, purpose and leadership of human institutions: why and how people organize; organizational environments, forms, structures, processes, leadership, communication, ethical, and societal impacts.

Credits: 3

### **PROF 290 - Experimental**

A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PROF 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PROF 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PROF 304 - Urban Sociology**

Sociological aspects of urban life. Includes metropolitan areas and small cities.

**Prerequisites & Notes**

PROF 201 or 202

Credits: 3

**PROF 309 - Health and Society**

An analysis of health services, public policy and institutional relations. Note: This course is taught from either a sociological or anthropological viewpoint. The student should check with the instructor to determine the approach being taken in the current offering.

**Prerequisites & Notes**

PROF 201 or 202 or permission of the instructor

Credits: 3

**PROF 310 - Cultural Area Studies**

Anthropology course dealing with sociocultural phenomena of specific cultural areas. Topics to be announced. Course may be repeated one time in a different area.

Credits: 3

**PROF 312 - Archaeology Techniques and Laboratory**

A course designed to introduce students to basic techniques in the field and to provide laboratory experience in working with field materials.

**Prerequisites & Notes**

PROF 202 or permission of the instructor

Credits: 3

**PROF 317 - Statistics for the Social Sciences**

An enrichment course that introduces statistical concepts and techniques of data analysis with computer application to analyze contemporary social issues.

**Prerequisites & Notes**

PROF 201 or 202

Credits: 3

**PROF 318 - Research Methods**

Major methods and procedures used in sociological research. Also listed as SASW 318

**Prerequisites & Notes**

PROF 317

Credits: 3

### **PROF 319 - Anthropology Methods**

Data gathering techniques and evaluation of anthropological phenomena from tribal, peasant and industrial societies.

#### **Prerequisites & Notes**

PROF 202 and PROF 317 or permission of the instructor

Credits: 3

### **PROF 320 - Community Change and Development**

This course surveys the field of community development within the context of community collaboration and civic leadership. Topics include social capital, asset-based community development, sustainable community programs, economic development programs, private/public partnerships, and the shared role of the private, public, nonprofit sectors and everyday citizens in community development.

Credits: 3

### **PROF 321 - Minority Groups**

An examination of the minority group concept with special emphasis on women, the poor, behavioral and physical minorities. Note: This course is taught from either a sociological or anthropological viewpoint. The student should check with the instructor to determine the approach being taken in the current offering.

#### **Prerequisites & Notes**

PROF 201 or 202

Credits: 3

### **PROF 322 - Aztecs, Incas and Maya**

This course introduces the student to the unique intellectual and cultural achievements of the Native Civilizations of Central and South America prior to the arrival of the Spanish. Two thirds of the course concentrates on Mesoamerica, especially the Aztecs and the Maya. One third on South America, with an emphasis on the civilizations of Peru. The variety of cultural developments, including their great time depth, social, political, economic, and artistic achievements as revealed through archaeological exploration, are explored.

Credits: 3

### **PROF 323 - Deviant Behavior**

The subject and nature of deviance with particular emphasis on its relativity and its relationship to social control and social change.

#### **Prerequisites & Notes**

PROF 201 or 202

Credits: 3

### **PROF 324 - The Family**

Comparative perspectives of the family as a universal social institution. Note: This course is taught from either a sociological or anthropological viewpoint. The student should check with the instructor to determine the approach being taken in the current offering.

#### **Prerequisites & Notes**

PROF 201 or 202

Credits: 3

### **PROF 325 - Social and Ethical Issues in Philanthropy and Fundraising**

Resource development, including grant writing and social entrepreneurs, is increasingly important to the future of nonprofit and educational organizations. This course addresses methods for integrating resource development and income generation into an organization's life. Three themes are found in this course: resource development as a management function, resource development as a management process, and issues in resource development.

Credits: 3

### **PROF 326 - Society, Culture and Self**

An examination of the relationship between personal characteristics and social environment.

#### **Prerequisites & Notes**

PROF 201 or 202

Credits: 3

### **PROF 327 - Religion and Society**

Explores the relationship between religion and society and some of the key issues confronting religion today.

#### **Prerequisites & Notes**

none

Credits: 3

### **PROF 330 - Collective Behavior**

An analysis of social movements, publics, crowds, mobs and similar social phenomena.

#### **Prerequisites & Notes**

PROF 201 or 202

Credits: 3

### **PROF 339 - Gender Roles and Society**

An examination of gender roles, what they are, how they develop and how they are maintained. An examination of the effects of gender roles on education, occupation, the polity and other institutions as well as the effects of role restrictions of personal relationships. Note: This course is taught from either a sociological or anthropological viewpoint. The student should check with the instructor to determine the approach being taken in the current offering.

**Prerequisites & Notes**

PROF 201 or 202

Credits: 3

**PROF 340 - Social Inequality**

Examination of the theoretical and practical implications of economic disparity across diverse populations: class, race, ethnicity and gender.

**Prerequisites & Notes**

PROF 201 or 202

Credits: 3

**PROF 342 - Sociology of Aging**

Social changes, which accompany aging. Emphasis placed upon how social processes influence patterns of aging and social problems of older people.

**Prerequisites & Notes**

PROF 201 or 202 or GERO 265

Credits: 3

**PROF 348 - Sociology of Organizations**

Approaches to the study of the structure and functions of large-scale social organizations.

**Prerequisites & Notes**

PROF 201 or 202

Credits: 3

**PROF 351 - Fraud**

Approximately 5% of U.S. organizations annual revenues are lost to fraud each year. This course explores the historical and social problems created by fraud, the ethical and legal issues fraud presents to organizations and our economy; and the principles of fraud detection, examination, and prevention organizations employ to combat fraud in order to minimize both economic losses and a loss of jobs.

Credits: 3

**PROF 352 - Law and Ethics in the Workplace**

This course explores the historical, legal, ethical and practical implications of legal rights of workers in organizational relationships. This course will provide the historical evolution of protective legislation for workers and the continual refinement of common law to workers' rights. Ethical issues not addressed by the law will be explored as well as the importance of diversity in order to provide maximum growth for society and all individuals.

Credits: 3

### **PROF 353 - Legal Relationships in the 21st Century**

This course will provide the student with a legal foundation for their private lives. It will provide them with a general knowledge base of what one's legal right and obligations are in various relationships in society. It will further challenge them to analyze both the law and ethics surrounding normal everyday transactions and personal life issues. Coverage will include legal relationships with spouses/domestic partners, sellers of houses, landlords, creditors, investment advisors/brokers, nonprofits, sellers of products either face-to-face or on the Internet and other legal relationships. This course will prepare the student to identify legal issues and analyze alternatives to solve them.

Credits: 3

### **PROF 354 - Risk Assessment and Fraud**

Every level of today's organizations must make ethics and organizational integrity a priority. Controlling for risk and preventing fraud are critical skills leaders in every organization will be called upon to exercise. Focus must be placed on fraud prevention, internal controls, compliance with regulations and other risk exposure. Students will apply course concepts to their own disciplines.

Course is to begin Spring 2014.

Credits: 3

### **PROF 360 - Women in Asian Societies**

Students will have an opportunity to gain an in depth understanding of the issues surrounding the roles and status of women in a rapidly changing Asia; from both a historic and a current context. These issues, which are political, religious, economic, health, social justice and legal, among others are vital for women in Asia, their societies as well as this ever globalizing world.

#### **Prerequisites & Notes**

Junior or Senior standing.

Credits: 3

### **PROF 390 - Experiment**

A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PROF 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PROF 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PROF 401 - Applied Anthropology**

Using anthropological concepts and methods, this course explores the role of archaeologists, and physical and cultural anthropologists in understanding and facilitating change in human biological and cultural issues.

#### **Prerequisites & Notes**

PROF 202 and 319 or permission of the instructor

Credits: 3

### **PROF 412 - Basic Sociological Theory**

Historical and modern development of basic concepts of sociology and cultural anthropology.

#### **Prerequisites & Notes**

PROF 201 or 202, 318 or 319, or permission of the instructor

Credits: 3

### **PROF 441 - Terrorism, Law, and National Security**

This course will discuss terrorism-its structure, causes, and illegal financing and the evolution of domestic and international laws evolving to deal with terrorism and national security.

#### **Prerequisites & Notes**

Junior/Senior Standing

Credits: 3

### **PROF 442 - Healthcare Law**

This course will provide students with an appreciation of the role law plays in the regulation and operation of the access to, and the quality and financing of healthcare. It addresses how healthcare law evolves to accommodate societal needs and concerns of diverse groups. This course will explore the structure of the healthcare system, and the economic and legal implications of healthcare which is important to all students as consumers of healthcare. Therefore, this course is open to all majors. Topics include: an overview of the legal system, civil, and criminal aspects of healthcare, patient rights, fraud and abuse, antitrust, information management, informed consent, current healthcare law developments and ethical considerations.

Credits: 3



## **PROF 450 - Internship**

Supervised placement in selected professional agencies.

### **Prerequisites & Notes**

For Professional Studies: permission of the instructor.

Credits: Up to 12

## **PROF 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

### **Prerequisites & Notes**

Permission of the instructor

Credits: 3

## **PROF 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

## **PROF 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor. Also listed as SASW 498

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **Prerequisites & Notes**

Introductory course in the student's major, e.g. PROF 201, 202

Credits: 1 to 3

## **PSYC 105 - Introduction to Psychology**

Psychology as a natural science covering the goals and principles of a science of behavior.

Credits: 3

## **PSYC 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **PSYC 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PSYC 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PSYC 205 - Environmental Psychology**

Man’s interference with the environment, including over-population, isolation, social institutions as environments, noise, housing, community design, behavioral effects of pollutants and behavior genetics.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 208 - Personality**

Review of the major historical and contemporary theoretical approaches to the study of personality, including their antecedents, underlying assumptions, research/evidential basis, influence on the field and relevance to the theory and practice of psychology.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 221 - Introduction to Behavioral Statistics**

Introduction to descriptive and inferential statistics used in evaluation and reporting of behavioral research.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 233 - Sensation & Perception**

Basic anatomy, physiology and role of sensory systems in perception and sensation.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 240 - Human Sexual Behavior**

Examines personal sociocultural factors in sexual functioning. Motivational, developmental, personality and clinical implications are explored.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 276 - Introduction to Abnormal Psychology**

Introduction to the field of abnormal behavior, including DSM classification and examination of major categories of mental disorders.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PSYC 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PSYC 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PSYC 300 - Psychology of Gender**

A survey of the psychological aspects of gender. Topics include similarities and differences between women and men, gender development, emotions, relationships, sexuality, education and work, health and fitness, psychological distress, and social roles.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105 or any Women's Studies course, or permission from the instructor.

Credits: 3

### **PSYC 302 - Psychology of Criminal Behavior**

The study of how individual criminal behavior is acquired, evoked, maintained and modified.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 303 - Learning**

Classical and instrumental conditioning, verbal learning, problem solving, habit formation and retention.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105, PSYC 221, and PSYC 325/326

Credits: 3

### **PSYC 304 - Theories of Counseling**

This course will examine the major approaches to psychotherapy through critical review of the theoretical assumptions, historical influences, process and outcome research, techniques of intervention and relevant context for the major theoretical paradigms. Professional and ethical issues, contemporary topics and issues of fundamental conceptualization skill development will be addressed. This course does not prepare students to function as counselors; rather it is designed to provide meaningful preparation for pursuit of post-Baccalaureate training.

#### **Prerequisites & Notes**

PSYC 208, PSYC 276, and a grade of C or higher in PSYC 105.

Credits: 3

### **PSYC 306 - Introduction to Psychological Testing**

Includes the historical, theoretical and statistical foundations of testing; exposure to ability (aptitude, achievement and intelligence) and personality tests; and the settings in which psychologists administer these tests.

**Prerequisites & Notes**

A grade of C or higher in PSYC 105 and PSYC 221

Credits: 3

**PSYC 310 - Introduction to Industrial-Organizational Psychology**

The application of psychological theory, techniques, and research to business, industry, and other organizational behavior. Subjects include employee recruitment and selection, retention and promotion; job satisfaction; job evaluation/performance measures; training; motivation; stress; and human factors.

**Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

**PSYC 311 - Introduction to Behavioral Neuroscience**

How physiological processes and nervous system activity mediate all normal and abnormal behavior. In addition to basic neuroanatomy and psychopharmacology, topics covered may include sensory systems, genetics, evolution, development, motivation, motor systems, sexual behavior, states of consciousness, learning and memory, language, emotion, and neurological and psychological disorders.

**Prerequisites & Notes**

A grade of C or higher in PSYC 105, PSYC 221, and PSYC 325/326.

Credits: 3

**PSYC 315 - Psychology of Lesbian and Gay Identities**

Overview of psychological perspectives and current research concerning lesbian, gay, and bisexual identities.

**Prerequisites & Notes**

A grade of C or higher in PSYC 105, or any Women's Studies course, or permission of the instructor

Credits: 3

**PSYC 318 - Clinical Child Psychology**

An overview of clinical practice with children. Includes theories of normal and abnormal child development, and an overview of assessment and intervention methods relevant to children.

**Prerequisites & Notes**

Grade of C or higher in PSY105, plus PSYC208, 276, 344

Credits: 3

**PSYC 320 - Introduction to Clinical Psychology**

Introduction to the field of clinical psychology. Includes an overview of training, similarities, and differences among various mental health service providers. Students will be introduced to interviewing skills, approaches to psychotherapy, assessment, treatment planning, and areas of specialization and application within the field. Emphasis is placed on consideration of issues that tend to arise when working with individuals from diverse backgrounds, including differences in racial and ethnic background, sex and gender, age, sexual orientation, religious background, and those with mental and physical disabilities.

**Prerequisites & Notes**

A grade of C or higher in PSYC 105 and PSYC 325/326, plus PSYC 276

Credits: 3

**PSYC 321 - Drugs and Behavior**

Psychoactive drugs and their action on the human nervous system; legal and sociocultural aspects of drug abuse.

**Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

**PSYC 325 - Introduction to Experimental Psychology**

This course will teach students how to design, conduct, and report psychological research. Topics include the nature of science, formulation of hypotheses, research methods and design, and ethical issues in using human and nonhuman subjects. Emphasis will be given to experimental design techniques, evaluation of published research in psychology, and the writing of research reports. The course will also focus on the teaching of library research skills and producing formal research reports in APA manuscript style

**Prerequisites & Notes**

A grade of C or higher in PSYC 105 and PSYC 221; Co-requisite: PSYC 326.

Credits: 3

**PSYC 326 - Experimental Psychology Laboratory**

A laboratory experience to accompany PSYC 325 in which students will conduct a series of literature searches, design and execute laboratory experiments, perform and interpret statistical analyses of data collected, and report experimental findings in APA style.

**Prerequisites & Notes**

Prerequisite: A grade of C or higher in PSYC 105 and PSYC 221; Co-requisite: PSYC 325

Credits: 1

**PSYC 334 - Health Psychology**

An overview of the field and of the role of psychology in health. Topics include health-enhancing and health-compromising behaviors; the effects of stress, coping, and personality on health; psychoneuroimmunology; treatments of specific problems and disorders; and interacting with health care services.

**Prerequisites & Notes**

A grade of C or higher in PSYC105, PSYC221, and PSYC325/326, or permission of the instructor

Credits: 3

### **PSYC 338 - Cognitive Psychology**

A survey of theories and facts related to complex information processing and conscious experience in humans. Topics covered will include attention, memory, problem solving, symbolic processes and human consciousness.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105, PSYC 221, and PSYC 325/326

Credits: 3

### **PSYC 344 - Developmental Psychology**

Human development from conception to senescence with emphasis on the theoretical and practical implications.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 360 - History of Psychology**

A review of the philosophical and natural science antecedents to the science of psychology and the development of psychological paradigms from our origins to the present, including attention to the interactive influence of world events/psychology. The historical perspective allows students to understand the relationships between different fields in psychology.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105; Jr/Sr Standing

Credits: 3

### **PSYC 364 - Child and Adolescent Development**

Intensive study of the biosocial, cognitive, and psychosocial aspects of development of children and adolescents.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105 and PSYC 325/326, plus PSYC 344

Credits: 3

### **PSYC 365 - Psychology of Aging**

Psychosocial, clinical and developmental aspects of aging, implications of optimal developmental and effective management of problems confronting the aged.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105 and PSYC 325/326, plus PSYC 344

Credits: 3

### **PSYC 375 - Psychopathology**

Advanced study of mental disorders, including symptoms, phenomenological aspects, diagnosis, and treatment. Students will examine psychological disorders in depth and begin to understand what people with the disorders experience. Psychological theory and research findings will guide the student in gaining an understanding of mental illness.

#### **Prerequisites & Notes**

Psychology majors only. A grade of C or higher in PSYC 105, 221, and 325/326, plus PSYC 208 and 276.

Credits: 3

### **PSYC 377 - Social Psychology**

The psychological implications of our social existence; a study of the social forces affecting human behavior.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105

Credits: 3

### **PSYC 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PSYC 392 - Cross Cultural Psychology**

This course will introduce and familiarize students with the concept of cross-cultural psychology by examining the extent to which the theories, principles, and knowledge of the discipline of psychology are universally applicable to humans. The goal of exploring the psychological implications of cultural differences and of contact among members of different cultures is to consider the role which psychological research and theory can play in advancing intercultural understanding.

#### **Prerequisites & Notes**

Grade of c or higher in PSYC 105, 221, and 325/326, plus PSYC377

Credits: 3

### **PSYC 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **PSYC 398 - Selected Topic**



A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PSYC 420 - Community Service Practicum in Psychology**

160 hours of documented, relevant volunteer placement in an approved public, not for profit, or private agency. A formal paper related to the experience is required to assist the student with meaningful integration of the experience. Course grading: Pass/No Credit

#### **Prerequisites & Notes**

Declared major, Jr/Sr standing, minimum 2.5 GPA in major, 2.0 GPA overall; a grade of C or higher in PSYC 105, PSYC 221 and PSYC 325/326; at least 5 core electives, written application and departmental permission.

Credits: 3

### **PSYC 421 - Advanced Behavioral Statistics**

Intermediate forms of statistical analysis of behavioral research, their rationale, and computer applications are introduced.

#### **Prerequisites & Notes**

A grade of C or higher in PSYC 105, PSYC 221, and PSYC 325/326

Credits: 3

### **PSYC 430 - Research Practicum in Psychology**

Supervised research experience with Psychology department faculty member. Students identify a mentor and work together with their mentor to develop and implement a research plan, and write an APA style paper reporting the results. Course grading: Pass/No Credit

#### **Prerequisites & Notes**

Declared major, Jr/Sr standing, minimum overall and Psych GPA of 3.0, a grade of C or higher in PSYC 105, PSYC 221 and 325/326; at least 5 core electives, written application and departmental permission.

Credits: 3

### **PSYC 449 - Seminar in Psychology**

Advanced topics will be announced in the schedule.

#### **Prerequisites & Notes**

9 credits of Psychology or permission of the instructor

Credits: 3

### **PSYC 450 - Psychology Internship**

Supervised placement in selected public and private agencies at appropriate institutions. Regular meetings with the internship supervisor, along with requirements to complete an APA style paper and an oral presentation, assist the student with integrating the intensive experience in applied psychology. Course grading: Pass/No Credit.

**Prerequisites & Notes**

Prerequisites: Declared major, Jr/Sr standing, minimum overall and Psych GPA of 3.0, a grade of C or higher in PSYC 105, PSYC 221 and PSYC 325/326, at least 5 core electives, written application and departmental permission.

Credits: Up to 12

**PSYC 475 - Behavior Modification**

Application of learning and other psychological principles in behavior therapy.

**Prerequisites & Notes**

A grade of C or higher in PSYC 105, plus PSYC 303, or permission of the instructor

Credits: 3

**PSYC 480 - Behavior Management**

Principles, methods and ethics of behavior management in community, industrial and/or congregate facilities.

**Prerequisites & Notes**

A grade of C or higher in PSYC 105, plus PSYC 303

Credits: 3

**PSYC 490 - Independent Study**

Propose and complete a supervised project, either historical, theoretical or experimental. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

Permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

**PSYC 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**PSYC 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **PSYC 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **PSYC 595 - Workshop**

Varies.

Credits: 3

### **PSYC 598 - Selected Topic**

Varies.

Credits: 3

### **RUSS 101 - Russian Language and Culture I**

This course is the first in a three course series which will provide an introduction to the Russian language.

Credits: 3

### **RUSS 102 - Russian Language and Culture II**

This course is the second in a three course series which will provide an introduction to the Russian language.

#### **Prerequisites & Notes**

RUSS 101 or the equivalent

Credits: 3

### **RUSS 103 - Russian Language and Culture III**

This course is the third in three course series which will provide an introduction to the Russian language.

#### **Prerequisites & Notes**

RUSS 102 or equivalent

Credits: 3

### **RUSS 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

Credits: 3

### **RUSS 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **RUSS 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **RUSS 202 - Intermediate Russian I**

Comprehensive review of Russian grammar with emphasis on developing the students’ abilities for proficient oral and written accomplishments.

#### **Prerequisites & Notes**

RUSS 103

Credits: 3

### **RUSS 210 - Russian Literature in Translation**

A study of representative Russian literary works from its origins to 1917. Course is taught in English; no knowledge of Russian required.

Credits: 3

### **RUSS 270 - Study in the Republic of Russia**

This course is designed for students who desire to study modern Russia first-hand. Students will study modern Russian economy, housing, the political system, history, and information on Russia while traveling in the Republic of Russia.

#### **Prerequisites & Notes**

ENGL 103 or equivalent

Credits: 1 to 3

### **RUSS 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **RUSS 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **RUSS 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **RUSS 301 - Advanced Russian 1**

A detailed course designed to give the student a valid structural knowledge of Russian. A study of the finer points of modern Russian usage.

#### **Prerequisites & Notes**

RUSS202 or equivalent

Credits: 3

### **RUSS 302 - Advanced Russian 2**

An advanced course in the study of Russian grammar designed to improve vocabulary, idiomatic useage, reading skills, and individual style.

#### **Prerequisites & Notes**

RUSS301

Credits: 3

### **RUSS 305 - Russian Civilization via Film**

A comprehensive analysis of Russian civilization through the media of Russian film. Russian films with subtitles present all major aspects of Russian civilization: the Tatar yoke, Russian expansion, the rise of Muscovy, the social-economic-political conflicts at various levels of tsarism, communication and post-communism. No prerequisite

Credits: 3

### **RUSS 306 - The Challenge of Russian Legacy**

A broad study of the social, political, historical, economic, and cultural situations of modern Russian from 1917 to the present. Course is offered in English and is open to all interested students.

Credits: 3

### **RUSS 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **RUSS 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **RUSS 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **RUSS 490 - Independent Study**

Students have an opportunity to study selected areas in greater concentration.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson and dean of the college where the study will be conducted

Credits: 1 to 3

### **RUSS 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **RUSS 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SAFE 118 - Introduction to Safety**

Examines basic safety practices, incident causal factors, and preventative measures.

Credits: 3

### **SAFE 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 1-3

### **SAFE 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **SAFE 198 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **SAFE 205 - First Aid and Safety**

Emphasizes prevention, protection from further harm and correct response to common emergencies resulting from trauma and/or illness confronting the citizen. Provides opportunity to earn certification in American Red Cross First Aid and American Red Cross CPR or American Health Association CPR.

Credits: 3

### **SAFE 218 - Hazard Analysis and Legislative Compliance**

Examines workplace hazards as they relate to the Occupational Safety and Health Act and promulgated standards (Labor).

Credits: 3

### **SAFE 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

### **SAFE 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **SAFE 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **SAFE 318 - Principles of Industrial Hygiene**

Concentrates upon the recognition, evaluation and control of employee-related workplace health hazards. Course includes an instrumentation component.

#### **Prerequisites & Notes**

Co-requisite: CHEM 104 or 107 or permission of the instructor

Credits: 3

### **SAFE 319 - Principles of Industrial Hygiene II**

Concentrates upon the recognition, evaluation and control of employee-related workplace hazards. Course includes an instrumentation component. Course is a continuation of SAFE318.

#### **Prerequisites & Notes**

SAFE 318

Credits: 3

### **SAFE 328 - Comprehensive Emergency Management and Fire Services**

Examines comprehensive emergency management and fire services as they relate to preparing, preparing, protecting, and preserving resources.

Credits: 3

### **SAFE 338 - Ergonomics and Human Factors**

Examines workplace design adversities as well as their remediation by the safety function.

Credits: 3

### **SAFE 348 - Hazardous Materials and Waste Management**



Examines the recognition, evaluation, control, and legislative compliance of hazardous materials and waste through effective safety management.

**Prerequisites & Notes**

Co-requisite: CHEM 104 or 107 or permission of the instructor

Credits: 3

**SAFE 358 - Construction Safety**

Safety requirements and responsibilities for the construction industry.

Credits: 3

**SAFE 368 - Injury and Damage Incidents Evaluation**

Focuses on the investigation, analysis, and evaluation of injury and property damage incidents. Includes Workers' Compensation and insurance variations.

Credits: 3

**SAFE 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

**SAFE 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

**SAFE 398 - Selectic Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**SAFE 408 - Contemporary Safety Topics and Issues**

Examines emerging issues and topics in the field of safety. Must be taken the semester prior to internship.

Credits: 3

**SAFE 418 - Security in the Workplace**

Examines security in relation to protecting assets and resources within an enterprise.

Credits: 3

### **SAFE 428 - Motor Transportation Fleet Safety**

Focuses on the essential elements of a comprehensive motor transportation fleet safety program as they relate to protecting and conserving enterprise resources.

Credits: 3

### **SAFE 448 - Management and Integration of Safety**

Involves the development, integration, evaluation, management, and cost containment strategies of the safety function within an enterprise.

Credits: 3

### **SAFE 450 - Internship**

Provides opportunity to apply theory and develop competencies through a work-related experience in an appropriate cooperating enterprise. Summers only.

#### **Prerequisites & Notes**

Program/major specified requirements and/or approval of instructor

Credits: Up to 12

### **SAFE 488 - Safety Training and Development**

Examines workplace safety training and development as they relate to employer work task performance at all levels of an organization.

Credits: 3

### **SAFE 490 - Independent Study**

Students study under the supervision of a professor on a specific and significant topic. Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

#### **Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted.

Credits: 1-6

### **SAFE 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **SAFE 498 - Selected Topics**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **SEFE 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **SEFE 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **SEFE 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **SEFE 200 - Introduction to Education**

This course is designed to introduce the student to the field of education. Topics covered include: the role of the teacher, structure and organization of schooling, and current issues and concerns relating to education.

#### **Prerequisites & Notes**

Sophomore class standing. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SEFE 230 - Production and Utilization of Instructional Technology**

Selection, utilization and production of instructional materials. Equipment operation via self-instruction in the Media Lab.

#### **Prerequisites & Notes**

Sophomore class standing. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SEFE 245 - Middle Level Learning Theory**

This course provides pre-service teachers with a knowledge base of the learning theories, with a special focus on the application of the psychological learning theories to the teaching and learning of the adolescent learner.

Credits: 3

### **SEFE 250 - Pre, Early, & Adolescent Development**

An analysis of the physical, social, emotional, cognitive, moral, and other developmental processes which occur during the pre-adolescent/adolescent years, and affect his/her learning.

#### **Prerequisites & Notes**

Credits: 3

### **SEFE 251 - Teaching Reading in the Content Areas Grades 4-8**

This course is designed to introduce the middle level teaching candidate to reading across the content areas.

Credits: 3

### **SEFE 270 - Educational Measurements, Assessment and Evaluation**

Objectives for testing and evaluation; construction and analysis of classroom tests for evaluative and diagnostic purposes; construction and application of non-test tools for assessment, including portfolios; statistical analysis of testing and measurement data; use of standardized tests in the classroom; and the use of computers.

#### **Prerequisites & Notes**

SEFE 200, CDEV 248. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SEFE 280 - Cultural Minorities in Education**

A study of multi-cultural issues in American education with emphasis on the theory and practice relating to race, religion, ethnicity, social class, gender, age, and exceptionality.

#### **Prerequisites & Notes**

Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SEFE 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

### **SEFE 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **SEFE 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **SEFE 300 - Middle Level Cognitive Development**

This course provides pre-service teachers with a knowledge base of the various factors which affect the learning, cognition, and cognitive development of the pre-adolescent learner.

Credits: 3

### **SEFE 311 - Teaching of Mathematics in the Middle School**

Students will explore curriculum models, teaching materials, technology and best teaching practices for enhancing middle school students' mathematical understanding.

#### **Prerequisites & Notes**

Admission to College of Education

Credits: 3

### **SEFE 319 - Teaching of Social Studies in Secondary Schools**

The development and refinement of teaching competencies particularly related to the teaching of secondary school social studies: history, political science, economics, geography and sociology/anthropology. The course will emphasize the development of social studies in the school, teaching methodology (past and current), the unit approach to teaching social studies, media uses and preparation of media materials, teaching techniques, professional organizations, and teaching aids and materials such as computers, television and simulation programs.

#### **Prerequisites & Notes**

24 credits in area of specialization. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student’s advisor.

Credits: 3

### **SEFE 320 - Teaching of Language Arts in Secondary Schools**

The development and refinement of teaching competencies particularly related to instruction in secondary school language arts, including English. The course also emphasizes English curriculum, teaching strategies and methodologies and the use of media in content presentation.

**Prerequisites & Notes**

24 credits in area of specialization. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**SEFE 323 - Teaching World Languages**

Theory and methodology for teaching world languages throughout the K-12 curriculum.

**Prerequisites & Notes**

SEFE 200, 24 credits in area of specialization. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**SEFE 324 - Methods for Teaching English as a Second Language and Bilingual Education**

A course designed to acquaint the prospective teacher at any level with the methodology used to teach English to native speakers of other languages. Also acquaints students with the specialized procedures used when teaching in bilingual classrooms (any two languages) on any level.

**Prerequisites & Notes**

One year of college language study or placement in 201. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**SEFE 325 - Teaching in the Middle Level Grades**

Focusing on middle school teaching in grades 4 through 8, this course examines the organization, curriculum, instructional strategies, classroom management techniques, and teaching methods for working with young adolescents. Also covered are middle level guidance, exploratories, scheduling, and parent-school relations.

Credits: 3

**SEFE 326 - ELL Strategies and Practice**

A course designed to acquaint the prospective teacher at any level with the methodology used to teach English Language Learners. Topics include linguistic and cultural diversity, standard-based instruction, assessment, and professionalism.

Credits: 3

### **SEFE 329 - Methods of Instruction in Secondary Content Areas**

This course is designed to provide prospective secondary teachers with the opportunity to design and teach lessons using basic instructional models and teaching strategies. The role of reading, writing, and oral communication in the teaching/learning of secondary content is also addressed. Following microteaching episodes, students reflect upon and analyze the teaching processes to clarify instructional values and to encourage critical inquiry.

#### **Prerequisites & Notes**

Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SEFE 335 - Teaching Middle Level Social Studies**

Designed for pre-service middle school teachers, focusing on grades 4 through 8, this multifaceted course compiles well-researched and essential information on social studies education.

The course uses the standards recommended by the National Council for the Social Studies and the Pennsylvania Department of Education as a foundation, thoroughly discussing the core disciplines and thematic strands of social studies. The knowledge base is packed with useful information on an all-encompassing range of teaching methods and tools, including lesson planning, skills development, assessment, multiple intelligences, determining one's personal philosophy of education, and utilizing information technology.

Credits: 3

### **SEFE 337 - Teaching Middle Level Language Arts**

This course provides pre-service upper elementary and/or middle-level teachers, focusing on grades 4 through 8, with the relevant teaching strategies and content for English pedagogy.

Credits: 3

### **SEFE 338 - Standards-Based Instruction & Assessment in the Inclusionary Classroom**

Assessment skills, extensive practice, and the application of assessment results to design effective individualized interventions are essential middle level teaching skills. Successful demonstration of these abilities is an expected outcome through the PDE 430, *Pennsylvania Statewide Evaluation Form for Student Professional Knowledge and Practice*. Assessment knowledge has an important role in the standards and rubrics adopted by the National Middle School Association (NMSA). The "Assessment in a Standards Aligned System" section of this document has an overview of the types of assessments used in the Pre K-12 settings and competencies for all professional education candidates.

Credits: 3

### **SEFE 342 - Educational Psychology for Diverse Learners**

This course provides the knowledge-base of (behavior, social learning, cognitive, constructivist and humanistic) learning theories, as applied in the context of diverse teaching and learning environments. The content also includes the topics of assessment, evidence-based research methods, motivational theories, and classroom management skills to enable the pre-service teacher to create effective learning environments for diverse learning contexts.

Credits: 3

### **SEFE 349 - Teaching of Science in the Middle School**

Students will explore curriculum models, teaching materials, technology and best teaching practices for enhancing middle school students' understanding in science.

#### **Prerequisites & Notes**

Admission to College of Education

Credits: 3

### **SEFE 375 - Language Across the Secondary Curriculum**

An examination of the language processes and their connection to learning content in secondary school. Based on the understanding of language and learning processes, future secondary teachers learn to employ teaching strategies that both enhance learning and improve reading, writing, speaking, and listening skills. Required of all secondary majors.

#### **Prerequisites & Notes**

Admission to Teacher Education. Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 2

### **SEFE 380 - History and Philosophy of Education**

Critical exploration of the philosophical issues and historical antecedents that form the bases for past and current American educational practice in a multicultural society.

Credits: 3

### **SEFE 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **SEFE 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **SEFE 398 - Selected Topic**



A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **SEFE 420 - American Education in the Twenty-First Century: A Comparative Perspective**

American educational policies and practices are viewed within a global context. Undergraduate students, who will become parents and taxpayers, are introduced to the core social and educational institution in developed or developing societies: the school.

#### **Prerequisites & Notes**

Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SEFE 422 - Practicum in the Middle-Level Grades**

Designed to give middle-level majors a pre-student teaching field experience in the middle level grades under the supervision of a University faculty member.

#### **Prerequisites & Notes**

Admission to and retention in the teacher education program. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the "Teacher Education Policy Manual."

Credits: 1

### **SEFE 426 - Practicum in Secondary Education**

Designed to give secondary education majors a pre-student teaching field experience in a secondary classroom under the supervision of a university faculty member.

#### **Prerequisites & Notes**

Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 1

### **SEFE 439 - Issues in the Diverse Secondary Content Area Classroom**

This course is designed to help secondary teachers apply theoretical models to classroom management and to the teaching of reading and writing in content area classrooms. Additionally, the principles of school law as they apply to classroom teachers will be examined. Finally, the course will be taken concurrently with student teaching to facilitate the integration of theory with practice.

#### **Prerequisites & Notes**

Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SEFE 455 - Student Teaching - Secondary Education**

Under the guidance of a cooperating teacher and university supervisor, students engage in two eight-week assignments on a full-time basis in specified school districts and attend scheduled seminars. Supervisors assign additional requirements.

#### **Prerequisites & Notes**

Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework; professional conduct standards, minimum overall GPA, and major GPA prerequisites also apply as specified in the Teacher Education Policy.

Credits: 12

### **SEFE 456 - Student Teaching - Middle Level Grades**

Under the guidance of a cooperating teacher and university supervisor, teacher candidates engage in two eight-week assignments on a full-time basis in specified school districts at the middle level and attend scheduled seminars. University supervisors assign additional requirements.

#### **Prerequisites & Notes**

Admission to and retention in the teacher education program are prerequisites for teacher education coursework; professional conduct standards, minimum overall GPA, and major GPA prerequisites also apply as specified in the Teacher Education Policy.

Credits: 12

### **SEFE 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

### **SEFE 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **SEFE 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **SOWK 105 - Human Diversity**

An orientation to living and working with diverse populations within modern American society, including examination of the strengths and stresses associated with diversities.

Credits: 3

### **SOWK 107 - Cultural Competency and Human Services**

This course is designed for Social Work and Criminology/Criminal Justice majors to develop their understanding of how cultural differences among client populations require differential applications generic (professional) skills.

Credits: 3

### **SOWK 190 - Experimental**

A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SOWK 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **SOWK 198 - Selected Topic**

A Selected Topics course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SOWK 200 - Introduction to Child Welfare**

Provides an overview of the child welfare system in the United States, including the history of the development of child welfare policies, programs, and services; exploring best practices in child welfare; and examining current and future issues and problems in this field.

Credits: 3

### **SOWK 230 - Frederick Douglass Social Justice and Equality**

This course provides an overview of Frederick Douglass' perspectives on injustice and racial prejudice, which will be examined from his life experiences as a former slave who became the pre-eminent voice of the liberation struggle. The historical context of Douglass' life will be compared and contrasted to contemporary issues of race, ethnicity, freedom and diversity awareness.

Credits: 3

### **SOWK 251 - Introduction to Social Work**

An orientation to the field of social work and social work activities in the community. Includes agency lab.

Credits: 3

### **SOWK 290 - Experimental**

A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SOWK 290 - Experimental**

A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SOWK 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **SOWK 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SOWK 318 - Research Methods**

Major methods and procedures used in sociological research. Also listed as PROF 318

#### **Prerequisites & Notes**

Admission to the Social Work program or permission of the instructor.

Credits: 3

### **SOWK 319 - Statistical Methods**

Introduction to basic statistical concepts and research techniques used in social research.

#### **Prerequisites & Notes**

SOWK 318 Research Methods, Admission to the Social Work program or permission of instructor

Credits: 3

## **SOWK 328 - Human Behavior and the Social Environment I**

Covers the biophysical, psychological, and social dimensions assessing social functioning during pregnancy, birth, newborn, infancy, and early childhood.

### **Prerequisites & Notes**

Admission to the Social Work Program

Credits: 3

## **SOWK 329 - Human Behavior and the Social Environment II**

Covers the biophysical, psychological, and social dimensions assessing social functioning during middle childhood, adolescence, young adulthood, and late adulthood.

### **Prerequisites & Notes**

SOWK 328 Human Behavior & Social Environment 1, Admission to the Social Work program

Credits: 3

## **SOWK 334 - Clinical Perspectives on DSM Diagnoses**

Course content related to taxonomy, etiology, and diagnostic impressions of psychiatric disorders will be presented. Social Work services will be analyzed in relation to the disorders.

New title Spring 2014; Old title=Theoretical Perspectives on Mental Dysfunctioning

### **Prerequisites & Notes**

Must be Criminology & Criminal Justice major or Social Work major

Credits: 3

## **SOWK 340 - Social Welfare Institutions**

An introductory analysis of social welfare policies, issues, and institutions.

### **Prerequisites & Notes**

Admission to the Social Work program

Credits: 3

## **SOWK 355 - Social Work Practice with Individuals**

Principles and practice of interviewing processes as applied to casework methods. Grade of C or better required.

New title Spring 2014; Old title=Social Work Methods I

### **Prerequisites & Notes**

Admission to the Social Work Program

Credits: 3

## **SOWK 356 - Social Work Practice with Groups and Families**

Expands knowledge and skills base to include social work practice with family and group systems. Grade of C or better required.

New title Spring 2014; Old title=Social Work Methods II

### **Prerequisites & Notes**

SOWK 355 or permission of the instructor

Credits: 3

## **SOWK 357 - Social Work Practice with Organizations and Communities**

Expands knowledge and skills base to include social work practice in communities and larger social systems. Grade of C or better required.

New title Spring 2014; Old title=Social Work Methods III

### **Prerequisites & Notes**

SOWK 250/340 and 356 or permission of the instructor

Credits: 3

## **SOWK 390 - Experimental**

A unique and specifically focused course within the general purpose of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

## **SOWK 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

## **SOWK 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

## **SOWK 407 - Social Policy Issues**

Problems and issues associated with social policy including the politics of welfare policy.

**Prerequisites & Notes**

Admission to the Social Work program, SOWK 250; Co-requisite: SOWK 357

Credits: 3

**SOWK 450 - SOWK Internship**

A Social Work Internship.

**Prerequisites & Notes**

Completion of Pre-Admission, Methods, Research , Development and Policy Sequences

Credits: Up to 12

**SOWK 460 - Social Work Integrative Seminar**

This senior level course integrates a four year social work curriculum with emphasis on knowledge base and skill acquisition for working in micro, mezzo, macro and research practice. This course will be a corequisite with SOWK 450 (Internship)

**Prerequisites & Notes**

Completion of Human Diversity (SOWK 105), Introduction to Social Work (SOWK 251), Methods I (SOWK 355), Methods II (SOWK 356), Methods III (SOWK 357), Statistics (SOWK 317), Research (SOWK 318), Human Behavior and the Social Environment I (SOWK 328), Human Behavior and the Social Environment (SOWK 329), Social Welfare Institutions (SOWK 340), Social Policy Issues (SOWK 407) and corequisite with the Internship (SOWK 450).

Credits: 3

**SOWK 490 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

**SOWK 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**SOWK 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

**Prerequisites & Notes**

Introductory course in the student's major, e.g. CRIM 205 or SOWK 251

Credits: 1 to 3

**SPAN 101 - Spanish Language & Culture I**

This course is the first in a three course series which will provide an introduction to the Spanish language.

Credits: 3

**SPAN 102 - Spanish Language & Culture II**

This course is the second in a three course series which will provide an introduction to the Spanish language.

**Prerequisites & Notes**

SPAN 101 or the equivalent.

Credits: 3

**SPAN 103 - Spanish Language & Culture III**

This course is the third in a three course series which will provide an introduction to the Spanish language.

**Prerequisites & Notes**

SPAN 102 or the equivalent.

Credits: 3

**SPAN 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

**SPAN 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**SPAN 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.



Credits: 3

### **SPAN 200 - Spanish Grammar and Composition I**

A course designed to provide a review of basic Spanish grammar, emphasizing areas of difficulty in learning Spanish as a foreign language, and to introduce grammatical concepts not covered in previous studies.

#### **Prerequisites & Notes**

SPAN 103 or equivalent

Credits: 3

### **SPAN 201 - Spanish Conversation I**

A functional course in speaking and writing Spanish, stressing everyday vocabulary and sentence structure. Some grammar review.

#### **Prerequisites & Notes**

SPAN 103 or the equivalent

Credits: 3

### **SPAN 220 - Reading in Spanish**

An introduction to reading in Spanish at the intermediate level.

#### **Prerequisites & Notes**

Spanish 103 or equivalent

Credits: 3

### **SPAN 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SPAN 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **SPAN 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SPAN 300 - Spanish Grammar and Composition II**

An intermediate grammar review and composition course emphasizing the basic structures of Spanish.

#### **Prerequisites & Notes**

SPAN 200 and 201 or 220

Credits: 3

### **SPAN 301 - Spanish Conversation II**

Development of communication skills through a variety of activities in contexts likely to be encountered in the target culture.

#### **Prerequisites & Notes**

SPAN 201 and 200 or 220

Credits: 3

### **SPAN 302 - Communication in Spanish for the Elementary Classroom**

This course is designed to offer the elementary education major specific language skills necessary for effective communication in the elementary education classroom. (open only to Ed majors).

#### **Prerequisites & Notes**

SPAN 201

Credits: 3

### **SPAN 303 - Professional Spanish**

Designed to acquaint the student with formal registers and formulas of communication used in all professional communication in the Spanish-speaking world.

New title Spring 2014; Old title=Business Spanish

#### **Prerequisites & Notes**

SPAN 200, 201 and SPAN 300 or 301

Credits: 3

### **SPAN 305 - Spanish Civilization**

A study of the history of Spain and of important components of its culture, such as art, architecture, and daily life.

**Prerequisites & Notes**

SPAN 220 and 200 or 201

Credits: 3

**SPAN 307 - U.S. Latino Cultures**

A study of the cultural background of the members of the Spanish-speaking minorities in the United States, especially the Chicanos, Puerto Ricans and Cubans.

**Prerequisites & Notes**

SPAN 220 and 200 or 201

Credits: 3

**SPAN 309 - Hispanic Civilization for the K-12 Classroom**

This course, designed for the Elementary Education major, focuses on themes of Hispanic civilization and culture appropriate for inclusion in the K-12 classroom. Open to Spanish education majors only.

**Prerequisites & Notes**

SPAN 220 and 200 or 201

Credits: 3

**SPAN 315 - Spanish Study Abroad**

This course is designed for students who wish to study the Hispanic society firsthand. Students will study the culture, literature, history, art, and other issues concerning the country where the program is offered.

**Prerequisites & Notes**

6 Spanish credits at the 200 level

Credits: 3

**SPAN 318 - Hispanic Children's Literature for the K-12 Classroom**

Students will read legends, fables, poems which are part of the Hispanic tradition and which are told to or read by young children and younger adolescents.

**Prerequisites & Notes**

SPAN 220 and 200 or 201

Credits: 3

**SPAN 326 - The Civilization of Spanish America: Precolumbian to 19th Century**

A study of the development of the civilization of Spanish America from Precolumbian times to the 19th century, including important aspects of their culture, such as art, architecture, and daily life.

**Prerequisites & Notes**

SPAN 220 and 200 or 201

Credits: 3

**SPAN 328 - The Civilization of Spanish America: 19th Century to Present**

A study of the development of the civilization of Spanish America from the 19th century to the present, including important aspects of their culture, such as art, architecture, and daily life.

**Prerequisites & Notes**

SPAN 220 and 200 or 201

Credits: 3

**SPAN 330 - Spanish Literature 1800 to Present**

A study of major writers genres and literary movements of Spain in this period.

**Prerequisites & Notes**

220 and 200 or 201

Credits: 3

**SPAN 332 - Spanish American Literature - 19th Century to Present**

A study of major writers genres and literary movements of Latin American in this period.

**Prerequisites & Notes**

220, 200 or 201

Credits: 3

**SPAN 335 - Women in Hispanic Literature**

A study of Hispanic women authors and of Hispanic women as literary characters in Hispanic literature.

**Prerequisites & Notes**

For Spanish credit, SPAN 220 and 200 or 201 or the equivalent. For non-Spanish credit, no prerequisite

Credits: 3

**SPAN 340 - Introduction to Translation I**

Introduction to the techniques of translating varied material from Spanish to English and vice versa with attention to cultural forces affecting translation.

**Prerequisites & Notes**

SPAN 300

Credits: 3

### **SPAN 350 - Spanish Linguistics and Phonetics**

An introduction to general linguistics and the practical application of linguistics to the study of Spanish. Analysis and practice of the sound system of the foreign language.

#### **Prerequisites & Notes**

6 Spanish credits at the 200 or above level

Credits: 3

### **SPAN 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SPAN 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **SPAN 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SPAN 400 - Spanish Grammar and Composition III**

An advanced course in the study of Spanish grammar and usage.

#### **Prerequisites & Notes**

9 Spanish credits at the 300-level including SPAN 300

Credits: 3

### **SPAN 401 - Spanish Conversation III**

This course will provide the opportunity for advanced students to improve their aural comprehension and their conversational abilities in Spanish.

**Prerequisites & Notes**

9 Spanish credits at the 300-level including SPAN 301

Credits: 3

**SPAN 431 - Spanish Literature - Medieval to 18th Century**

A study and analysis of the most important works of representative Spanish authors of this period.

**Prerequisites & Notes**

9 hours at the 300-level including 300 and 305 or 307 or 326, or 328 and 330 or 332 Or 318

Credits: 3

**SPAN 432 - Spanish-American Literature: Precolumbian to 19th Century**

A study and analysis of the most important works of representative Spanish-American authors of this period.

**Prerequisites & Notes**

9 hours at the 300 level including 300 and 305 or 307 or 326 or 328 and 330 or 332 or 318

Credits: 3

**SPAN 490 - Independent Study**

Students have an opportunity to study selected areas in greater concentration. The nature of the topic selected and its treatment are determined in consultation with the instructor. credits)

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

**Prerequisites & Notes**

Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted

Credits: 1 to 3

**SPAN 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

**SPAN 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SPED 121 - High Incidence Disabilities**

This course will examine best practice and policies relating to the educational consequences of high-incidence disabilities with an emphasis on learning disabilities, mental retardation, emotional disturbance, speech/ language, and other health impairment.

#### **Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SPED 122 - Low Incidence Disabilities**

This course will examine best practice and policies relating to the educational consequences of low-incidence disabilities. An emphasis on deafness, blindness, deaf-blindness, severe disability and multiple disability will occur. Placement and accommodation issues in integrated educational settings will also be a focus.

#### **Prerequisites & Notes**

SPED 121.

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SPED 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SPED 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **SPED 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SPED 230 - Developmental Disorders**

Students will identify the critical components of an educational program for learners with developmental disabilities including: curricular areas, effective teaching techniques, use of appropriate materials, co-teaching and team teaching, ancillary services and personnel, parental involvement and inclusionary practices.

#### **Prerequisites & Notes**

SPED 121; SPED 122

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SPED 245 - Technology in Special Education**

Candidates will develop the use of technologies to assist in the teaching, remediation, assessment and enrichment of students with special needs in inclusive traditional and/or cyber classrooms. The goal is to help pre-service teachers implement instructional and assistive technology effectively. This course will also provide a framework for utilizing educational technology to meet the individualized needs of students.

#### **Prerequisites & Notes**

SPED 121, 122 with grade of C or better

Credits: 3

### **SPED 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SPED 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **SPED 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.



Credits: 3

### **SPED 302 - Developmental Disabilities**

The learner will identify the critical components of an educational program for persons who have mental retardation classified as moderate, severe, or profound including: curricular areas, effective teaching techniques, appropriate materials, team approaches, ancillary services, parental involvement and inclusionary practices. Includes a lab of three contact hours per week with students who have severe and/or multiple disabilities.

#### **Prerequisites & Notes**

SPED 121, 202, 203, 204. NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

### **SPED 315 - Special Education Issues in Diverse Secondary Classrooms**

This course is designed to familiarize secondary education majors with the various behavioral problems they may encounter in the inclusive classroom. Suggestions are given for ameliorating these problems, as well as successfully organizing the classroom and classroom routine. Three units of study will be explored. The three units are: 1) Classroom management with a focus on dealing with students with special needs, 2) Legal issues for secondary teachers, 3) Impact of exceptionalities in inclusive settings.

#### **Prerequisites & Notes**

Corequisite SPED 455

Credits: 3

### **SPED 325 - Interventions in the Inclusive Classroom**

This course in Special Education is designed for the teacher candidate seeking certification in Special Education, Early Childhood, Middle School, and / or other areas. It is designed to prepare future teachers with interventions in the inclusive classroom. Course content will include current effective instructional practices and delivery methods for all levels of special education to ensure for success of all students in the inclusive school setting. Due to recent changes in federal regulations beginning with "No Child Left Behind," more students with disabilities are being taught in the regular education classroom. This course will examine effective instructional practices and delivery methods for all levels of special education support (PK-8) to employ for an inclusive classroom setting.

#### **Prerequisites & Notes**

SPED 121

Credits: 3

### **SPED 326 - Special Education Law and Procedures**

This course will review the special education process and procedures that are concerned with screening, assessment, IEP development, evaluation, and law.

**Prerequisites & Notes**

SPED 121; SPED 122; SPED 230; SPED 325

Credits: 3

**SPED 341 - Life Management for Persons with Disabilities**

Preparation of the teacher to plan for meeting the major developmental needs of disabled persons from infancy to adulthood; emphasis on early childhood education, career education to include: preparation for occupation, homemaking, social leisure skills, parent involvement and use of community resources to accomplish these objectives.

**Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**SPED 342 - Seminar in CPAD**

This course focuses on the multi-dimensional role of service provider to individuals with exceptionalities. In addition to hand-on experience with service agencies, CPAD students enrolled in this course will interact with service providers, supervisors, related service personnel, parents, and care takers.

Credits: 3

**SPED 343 - Americans with Disabilities**

This course will provide background for understanding how disabling conditions may handicap a person in terms of jobs, marriage, and family life, housing and transportation and citizenship. The course stresses how everyone is involved in determining the success or failure of the disabled in society. An historical overview of society's treatment of the disabled will be contrasted with recent legislation and the emerging roles of the disabled in American society. The impact of special education on the disabled person, the parents, siblings, employers, neighbors, and peers will be presented.

**Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 3

**SPED 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SPED 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **SPED 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SPED 410 - CPAD Practicum**

Experience in field.

Credits: 3

### **SPED 430 - Positive Behavior Strategies**

This course is designed to familiarize students with various strategies, interventions and preventative measures to deal with behavioral issues in the self-contained and inclusion classroom.

#### **Prerequisites & Notes**

SPED 121; SPED 325

Credits: 3

### **SPED 431 - Behavior Disorders and Autism**

Techniques and educational strategies for teaching disturbed persons and juvenile delinquents for preparation for teaching in public residential institutions, as well as in special classes, resource rooms or home-bound instruction. This course is also designated an intensive writing course by the university.

#### **Prerequisites & Notes**

Prerequisites: SPED 121, SPED 122; SPED 230; SPED 325

Credits: 3

### **SPED 432 - Intervention in the Content Areas**

This course in Special Education is designed for the teacher candidate seeking certification in Special Education, Early Childhood, Middle School, and / or other areas. This course will focus on reading, writing, and mathematics interventions. Students will gain experience with a variety of strategies and interventions to use with various levels of special education needs in the regular education classroom, Due to recent changes in federal regulations beginning with "No Child Left Behind," more students with disabilities are being taught in the regular education classroom. This course will examine effective instructional practices and delivery methods for all levels of special education support

(PK-8) to employ for an inclusive classroom setting.

**Prerequisites & Notes**

SPED 121; SPED 122; SPED 230; SPED 325

Credits: 3

**SPED 433 - Assessment Strategies in Special Education**

This course is designed to provide undergraduate students with the skills and knowledge necessary to conduct educational assessment of diverse students and interpret assessment results in order to plan an educational program (i.e., determine eligibility and develop an individualized education program).

**Prerequisites & Notes**

Prerequisites: SPED 121; SPED 122; SPED 230; SPED 325

Credits: 3

**SPED 434 - Professional Collaboration and Ethical Practices**

This course focuses on skills in consultation, collaboration and learning to prepare the pre-service teacher for the multidimensional role of today's special educator. In addition to hands-on experience in classrooms, students enrolled in this course will interact with special educators, parents, general educators, and resource personnel among others. Application of teaching techniques with children with disabilities under faculty and host teacher supervision will provide the pre-service teacher with an opportunity for experience in the special education classroom as well as inclusive settings prior to the student teaching experience.

**Prerequisites & Notes**

SPED121; SPED 122; SPED 230; SPED 325

Credits: 3

**SPED 450 - Internship**

Varies

**Prerequisites & Notes**

SPED 121, 202, 203, 204, 212, 311 or 313, 400

Credits: 12

**SPED 455 - Student Teaching - Special Education**

Under the guidance of a cooperating teacher and university supervisor, students engage in two eight- week assignments on a full-time basis in specified school districts and attend scheduled seminars. Supervisors assign additional requirements.

**Prerequisites & Notes**

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall GPA, professional conduct standards, and major GPA prerequisites also apply; these are specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

Credits: 12, 6, 3

### **SPED 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 3

### **SPED 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **SPED 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **SPED 530 - Nursing Issues in Special Education**

This course examines the roles of the school nurse as they pertain to the student with disabilities. Various exceptionalities are explored and activities provided to the school nurse candidate to learn about the student with disabilities and how to meet his/her needs in and out of the classroom.

Credits: 3

### **SPED 590 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **SPED 595 - Workshop**

Varies.

Credits: 3

### **SPED 598 - Selected Topic**

Varies.

Credits: 3

### **SPMT 150 - Practical Application**

Provides students with early-on structured observations, micro-teaching experiences and seminars to enhance their awareness, understanding and comprehension about persons of all ages in public and private schools, sport facilities, sport and fitness agencies. SPMT 150 may be repeated to a maximum of 4 credits in different experiences. This is a Theory and Technique Course.

#### **Prerequisites & Notes**

SPMT 194

Credits: 1

### **SPMT 194 - Introduction to Sport Management**

This course is an introduction to the field of sport management. Career options and managerial content will be reviewed. Foundation studies of sport, including history, philosophy, and professional skills, will be discussed. This is a Theory and Technique Course.

#### **Prerequisites & Notes**

(Must achieve at least a C grade before progressing to other SPMT courses.)

Credits: 3

### **SPMT 196 - Global Sport Management**

As the economy has shifted from a domestic to a globally competitive marketplace, the demand has grown for sport managers who can function effectively in the international environment. This course develops a framework for understanding the international aspects of sport management. It provides future sport managers with a broad view of the factors underlying international sport competition, sport economics, sport marketing, sport management, and sport governance. Emphasis is on environmental dynamics, cultural and economic constraints, multinational sport business organizations, unique international sport events and international sport operations, strategy and policy.

#### **Prerequisites & Notes**

Declared Sport Management major.

Credits: 3

### **SPMT 269 - American Sport in the 21st Century**

This course is designed to give the students an understanding of the internal and external factors that shape sport in American culture. This course will analyze how sport mirrors societal changes and how sociological phenomena affect participation and behavior. This is a Theory and Technique Course (open to Sport Management majors only).

Credits: 3

## **SPMT 286 - Sport Communication and Technology**

This course is intended to provide students with a comprehensive understanding of communication and communication techniques that managers use to achieve excellence in sport organizations. Focus will be placed on public relations, as well as techniques for improving the communication skills of each student in an organized sport setting. Students will receive in-depth exposure to, (a) theories underlying the use of public relations in sport, (b) new technologies in sport communication, (c) desktop publishing in sport organizations, (d) sport organizational communication techniques, and (e) sport media relations. This is a Theory and Technique Course (open to Sport Management majors only).

### **Prerequisites & Notes**

Credits: 3

## **SPMT 294 - Sport Management and Ethics**

This course is designed to integrate the concepts learned from the foundation courses in management as they apply to management areas of sport and sport agencies. The ethical strategies of sport management will be emphasized in all management decisions. This is a Theory and Technique Course (open to Sport Management majors only).

Credits: 3

## **SPMT 315 - Diversity Issues in Sport Management**

This course is designed to explore the persistent causes of pervasive racism and sexism in sport as it relates to the sport management field. This is a Theory and Technique Course (open to Sport Management majors only).

### **Prerequisites & Notes**

SPMT 194, 196, 269 or permission by instructor

Credits: 3

## **SPMT 369 - Sport Budgeting and Finance**

The focus of this course is on budgeting and financial principles in the sport industry. Major components of the course include analyzing budgets from youth, community, recreational, interscholastic, intercollegiate, professional, and international sport organizations, as well as studying the financial composition and impact of the sport industry. Students will also learn to construct various types of budgets used by sport organizations.

### **Prerequisites & Notes**

SPMT 194, 196, 269, 286, 294

Credits: 3

## **SPMT 386 - Leadership in Athletic Administration and Sport Management**

The major emphasis is on the preparation of athletic administrators and sport managers within collegiate university, high school, community and youth sport organizations. Information presented in this course will examine leadership theoretical concepts to help prepare students pursuing a career in athletics management/administration. Through

critical thinking component and practical application exercises, the student will apply leadership theories, principles and concepts. Ultimately, the student will develop essential leadership competencies and skills for today's athletic administrators.

**Prerequisites & Notes**

SPMT 150 with a grade of C or better; and SPMT 194 with a grade of C or better; and SPMT 294 with a grade of C or better

Credits: 3

**SPMT 394 - Sport Marketing**

Sport Marketing is designed to apply marketing principles to the area of sport, sport events and sport products. Marketing strategies including sales, promotions and advertising of sport will be emphasized. This is a Theory and Technique Course (open to Sport Management majors only).

**Prerequisites & Notes**

SPMT 150-01, 194, 196, 286, 294, or permission by instructor

Credits: 3

**SPMT 396 - Sport Sales and Fundraising**

The sport industry requires students who are trained in all aspects of sport business. This course develops a framework for understanding the business aspects of sport management. It provides future sport managers with a broad view of the factors underlying sport economics, sales and sales management strategies, budgeting, financing strategies, and economic impact. This course is designed to familiarize students with: the economics of sport, interscholastic sports budget and finance, intercollegiate athletics budget and finance, professional sport budget and finance, sales techniques, and sales management.

**Prerequisites & Notes**

SPMT 150-01, 194, 196, 286, 294 *or* permission by instructor.

Credits: 3

**SPMT 406 - Sport Facility and Event Management**

This course is designed to assist the sport management student in acquiring the necessary knowledge and skills needed to manage a sport facility and to plan a complete sporting event. This is a Theory and Technique Course (open to Sport Management majors only).

**Prerequisites & Notes**

SPMT 150-01, 150-02, 194, 196, 286, 294 or permission by instructor

Credits: 3

**SPMT 450 - Sport Management Internship**

This course provides students with the opportunity to apply sport and fitness career-oriented skills in public, commercial, and private agencies. The internship is designed to be an in-depth experience. This is a Theory and Technique Course (open to Sport Management majors only).



**Prerequisites & Notes**

ALL SPMT classes or permission by instructor

Credits: 3-12

**SPMT 486 - Sport Law**

The course will demonstrate how constitutional law, contract law, tort law, labor and anti-trust law, apply to the sport industry. In addition the course will provide a fundamental understanding of the court system and how legal issues are decided. This is a Theory and Technique Course (open to Sport Management majors only).

**Prerequisites & Notes**

SPMT 150-01, 150-02, 194, 196, 286, 294 or permission by instructor

Credits: 3

**SPMT 494 - Sport Management Senior Seminar**

This course is designed for the senior Sport Management student, this course will examine topics dealing with sport finance management, sport law, sport facility management, and time and stress management. Field trips to sport agencies will be required. This is a Theory and Technique Course (open to Sport Management majors only).

**Prerequisites & Notes**

SPMT 150-01, 150-02, 150-03, 194, 196, 269, 286, 294, 315, 394, 396, or permission by instructor

Credits: 3

**SPMT 499 - Sport Management Research Methods**

A study of research methodology and terminology in Sport Management entailing a critical analysis of available research. Specific attention is directed to formal written communication and oral presentation skills. This is a Theory and Technique Course (open to Sport Management majors only).

**Prerequisites & Notes**

SPMT 150-01, 150-02, 194, 196, 269, 286, 294, 394, or permission by instructor

Credits: 3

**THEA 131 - Fundamentals of Acting**

An introduction to the theory and practice of acting.

Credits: 3

**THEA 132 - Stagecraft**

Fundamentals of modern set construction, stage lighting, properties, and costume practice. Students assist with current productions in laboratory sessions.

Credits: 3

### **THEA 141 - Introduction to the Theatre**

An introduction to the elements of the theatre: acting, playwriting, directing, producing, design and technology. Attention to the ways in which theatre springs from the nature of the community in historical as well as contemporary settings. A lecture course; no performance skills required.

Credits: 3

### **THEA 151 - Rehearsal and Production**

Supervised experience in theatre performance and stagecraft by acting or crew participation in one Department of Theatre production. May be taken for credit four times. Prospective actors will have to participate in a competitive audition.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 1

### **THEA 159 - Introduction to Arts Administration**

This course covers the basic principles, theories, concepts, processes and practices relating to organizations in the arts industry, including structure of the arts industry, organization structures, leadership, staffing, volunteerism, fundraising, intellectual property, grants writing, advocacy, etc.

Credits: 3

### **THEA 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **THEA 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **THEA 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **THEA 215 - Drawing/Drafting/CAD**

Principles and techniques used for the creation and implementation of theatrical designs. Introduction to design elements and techniques, drawing, rendering, and computer-aided drafting. Emphasis on set, costume, lighting and property designs.

#### **Prerequisites & Notes**

Permission of the instructor

Credits: 3

### **THEA 222 - Acting II**

Intermediate-level course designed to continue the actor training begun in THEA 131. Emphasis on realistic acting techniques.

#### **Prerequisites & Notes**

THEA 131

Credits: 3

### **THEA 235 - Costume Technology**

Basic techniques of constructing costumes for the stage, emphasizing sewing, pattern making and cutting, draping. Includes the study of fabrics, millinery, and accessories.

Credits: 3

### **THEA 259 - Studies in Audience Development**

An intermediate-level course focusing on audience development strategies for arts institutions.

#### **Prerequisites & Notes**

THEA159

Credits: 3

### **THEA 269 - Playwriting**

An introduction to the fundamentals of playwriting, including clear storytelling, character development, scene structure and style. The particular demands of writing in a theatrical medium, as distinct from film, television or novel, will be emphasized.

Credits: 3

### **THEA 281 - Survey of Dramatic Literature I**

Analysis and discussion of some of history's most celebrated works of dramatic literature, ranging from classical drama to drama of the eighteenth century. Texts will be examined within the historical context of the cultures that produced them, and in light of their respective theatrical conditions, performance styles, etc. Emphasis will also be placed on various methods of textual analysis.

Credits: 3

### **THEA 283 - Survey of Dramatic Literature II**

Analysis and discussion of some of history's most celebrated works of dramatic literature, ranging from the early 18th century to the most exciting and groundbreaking contemporary drama. Texts will be examined within the historical context of the cultures that produced them, and in light of their respective theatrical conditions, performance styles, etc. Emphasis will also be placed on various methods of textual analysis.

Credits: 3

### **THEA 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

Credits: 3

### **THEA 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **THEA 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **THEA 322 - Acting Technique**

An intensive focus on one or more of the following: role preparation, scene study, physical disciplines of acting. Approach varies from offering to offering. May be repeated for credit three times.

#### **Prerequisites & Notes**

THEA 222 and permission of the instructor

Credits: 3

### **THEA 324 - Stage Makeup**

Theory, practice, and materials of stage make-up. Practical application is mandatory and extensive; students will analyze various characters and design makeup for them.

**Prerequisites & Notes**

THEA 131,151

Credits: 3

**THEA 328 - Acting Shakespeare**

An advanced-level course designed to provide the student with tools for the analysis and performance of the plays of Shakespeare.

**Prerequisites & Notes**

THEA 222 and permission of the instructor

Credits: 3

**THEA 329 - Shakespeare Tour**

An ensemble composed of actors and technicians, selected by audition and interview, performing Shakespeare-based scripts in the community and region. May be repeated twice for credit.

**Prerequisites & Notes**

Prerequisites: THEA 328 or permission of instructor.

Credits: 3

**THEA 330 - Voice and Movement for the Actor**

Introduction to disciplines of voice and movement essential for the well-prepared actor. Emphasis will be on performance rather than theory.

**Prerequisites & Notes**

Prerequisite: THEA 131

Credits: 3

**THEA 332 - Advanced Stagecraft**

Advanced methods and materials of stagecraft: emphasis on furniture, metals, projected scenery, unusual rigging situations, hydraulics, computer applications, and special effects.

**Prerequisites & Notes**

THEA 132

Credits: 3

**THEA 333 - Scene Design**

The principles and application of design for stage, emphasizing sketches, diagrams, drafting, and model making.

**Prerequisites & Notes**

THEA 215 or permission of the instructor

Credits: 3

**THEA 334 - Stage Lighting**

The theory and practice of stage lighting as practiced in modern theatre.

**Prerequisites & Notes**

THEA 215 or permission of the instructor

Credits: 3

**THEA 335 - Costume Design and History**

A survey of costume history from the ancient world to the present with an emphasis on social, political, religious, and technological conditions. The process of costume design will be explored using the principles of variety and order, character analysis, period research, and the elements of design.

**Prerequisites & Notes**

THEA 215 or permission of instructor.

Credits: 3

**THEA 337 - Directing**

The theory and practice of directing for the modern theatre.

**Prerequisites & Notes**

THEA 131, 132, 281, and one section of 151

Credits: 3

**THEA 339 - New Play Development**

This course is designed for actors, directors, designers and playwrights to learn how to collaborate with a playwright on a new work and to successfully mount a production of this new work. Students participate through a collaborative process of rehearsal and design, problem-solving and experimentation. Class culminates in a public performance on campus and perhaps another local venue.

**Prerequisites & Notes**

Student should be a theatre major. Permission of instructor via audition or portfolio review.

Credits: 3

**THEA 340 - International Theatre Experience**

This course is designed for actors, designers and public relations students to create, design and market a production for overseas performance. Students participate through a collaborative process of rehearsal and design, problem-solving and experimentation. Students will also have the opportunity to participate in theater activities involving international performance groups. Class culminates in a public performance both on campus and overseas.

**Prerequisites & Notes**

Permission of instructor via audition or portfolio review.

Credits: 3

**THEA 345 - Stage Management and Safety**

Safe and effective production management on the modern stage. Safety education in shop, performance, and public spaces.

**Prerequisites & Notes**

THEA 132

Credits: 3

**THEA 355 - Projects in Theatre**

The study and performance of a major role in a Department of Theatre production, or participation in a production as a crew head with significant responsibility, or planning and execution of a study of moderate scope in the history, literature, or criticism of the theatre. May be taken for credit four times for a maximum of 6 credits.

**Prerequisites & Notes**

Junior standing and permission of the instructor

Credits: 1 to 2

**THEA 369 - Advanced Playwriting**

An advanced class devoted to building upon fundamental skills learned in *Playwriting* (93 269), such as characterization, plot structure, exposition, etc.

**Prerequisites & Notes**

THEA 269 - Playwriting

Credits: 3

**THEA 370 - Playwriting Genres and Styles**

An advanced class devoted to exploring one or more of the following advanced topics: playing genres, "devised theatre," documentary theatre, non-realistic writing, non-traditional structures and forms.

**Prerequisites & Notes**

THEA 369 or permission of the instructor.

Credits: 3

### **THEA 372 - Senior Seminar in Playwriting**

An advanced-level seminar for senior playwriting majors, in which major playwriting projects are shared and developed.

#### **Prerequisites & Notes**

THEA369

Credits: 3

### **THEA 390 - International Theatre Experience**

This course is designed for actors, designers and public relations students to create, design and market a production for overseas performance. Students participate through a collaborative process of rehearsal and design, problem-solving and experimentation. Students will also have the opportunity to participate in theater activities involving international performance groups. Class culminates in a public performance both on campus and overseas.

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

#### **Prerequisites & Notes**

Permission of instructor via audition or portfolio review.

Credits: 3

### **THEA 393 - History of Theatre Design and Architecture**

A review of the history and evolution of scene, costume, lighting, prop and sound design for the theatre. Course will also examine the evolution of theatre spaces, from the outdoor theatre of the Ancient Greeks to traveling wagon stages of the medieval period to modern architectural trends. The course will examine non-western forms of theatre such as aboriginal and African theatre as well as western world theatre traditions.

#### **Prerequisites & Notes**

THEA 281

Credits: 3

### **THEA 394 - Theories of Acting and Directing**

A history of the art, craft and theories of acting. Also, a historical investigation into the role of the "director" in pre-modern theatre and the evolution into its present predominant place in contemporary theatre.

#### **Prerequisites & Notes**

THEA 281 or permission of instructor

Credits: 3



### **THEA 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **THEA 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

Credits: 3

### **THEA 425 - Professional Theatre Practice**

A study of the working conditions of the professional actor, designer, technician, and director in the contemporary theatre. Preparation for effective career development.

#### **Prerequisites & Notes**

Junior standing

Credits: 3

### **THEA 450 - Internship**

Supervised placement in a working theatre situation off campus.

#### **Prerequisites & Notes**

Extensive and successful experience in theatre performance on campus, 2.000 GPA overall and in all theatre courses attempted, and permission of the department's curriculum committee.

Credits: Up to 12

### **THEA 490 - Independent Study**

A faculty-supervised project in an advanced area of theatre studies carried out independently by a qualified upper-class student.

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

Credits: 1 to 3

### **THEA 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

Credits: 3

### **THEA 498 - Selected Topics**

The in-depth examination of a specific topic. The nature of the topic selected and its treatment determined in consultation with the instructor. May be repeated for credit provided the topic varies substantially from all previous registrations.

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

#### **Prerequisites & Notes**

permission of the instructor

Credits: 1 to 3

### **WMST 115 - Introduction to Women's Studies**

Introduction to Women's Studies is an interdisciplinary course that offers a foundation for understanding the diverse strands of the female experience, focusing on the strengths and conditions which simultaneously unite and divide women.

Credits: 3

### **WMST 190 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **WMST 195 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **WMST 198 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **WMST 290 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a "one time only" basis and not as a permanent part of the department's curriculum.

### **WMST 295 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **WMST 298 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **WMST 390 - Experimental**

A unique and specifically focused course within the general purview of a department which intends to offer it on a “one time only” basis and not as a permanent part of the department’s curriculum.

### **WMST 395 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **WMST 398 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

### **WMST 415 - Feminist Perspectives in the Disciplines**

This course will explore feminist approaches to pedagogy and research in the humanities, social sciences, and natural sciences, highlighting how such approaches reshape and redirect the ways knowledge is constructed as well as the attendant, transformed results.

#### **Prerequisites & Notes**

Prefer to have students with some background in women’s studies)

Credits: 3

### **WMST 450 - Internship**

Professional experiences, such as working with the Girl Scouts or state National Organization for Women (NOW), or working in a women’s center or abuse/sexual assault center, that will allow students to either apply or function within a feminist framework to understand the complexity of women’s lives and contribute to women’s opportunities.

#### **Prerequisites & Notes**

Completion of at least six credits of coursework approved for the women’s studies minor

Credits: Up to 12

### **WMST 490 - Independent Study**

Independent Study courses give students the opportunity to pursue research and/or studies that are not part of the university's traditional course offerings. Students work one on one or in small groups with faculty guidance and are typically required to submit a final paper or project as determined by the supervising professor.

### **WMST 495 - Workshop**

A workshop is a program which is usually of short duration, narrow in scope, often non-traditional in content and format, and on a timely topic.

### **WMST 498 - Selected Topic**

A **Selected Topics** course is a normal, departmental offering which is directly related to the discipline, but because of its specialized nature, may not be able to be offered on a yearly basis by the department.

## **Faculty & Administration**

Click on a link to be taken to the entry below.

- Pennsylvania State System of Higher Education
- Board of Governors
- Council of Trustees
- Slippy Rock University Administration
  - Academic Affairs
  - Finance and Administration
  - Student Life
  - University Advancement
- Slippy Rock University Faculty
- Slippy Rock University Faculty Emeriti

## **Pennsylvania State System of Higher Education - Executive Staff**

Dr. John C. Cavanaugh	Chancellor
Dr. Peter Garland	Executive Vice Chancellor
James Dillon	Vice Chancellor for Administration and Finance
Karen Ball	Vice Chancellor for External Relations
Gary Dent	Vice Chancellor for Human Resources and Labor Relations
Leo Pandeladis	Chief Legal Counsel
Dr. Kathleen Howley	Sr. Associate Vice Chancellor for Academic and Student Affairs

# Board of Governors

Guido M. Pichini	Chairperson
Marie Conley Lammando	Vice Chairperson
Aaron A. Walton	Vice Chairperson
Leonard B. Altieri III	Member
Rep. Matthew E. Baker	Member
Gov. Thomas W. Corbett	Member
Sarah C. Darling	Member
Rep. Michael K. Hanna	Member
Ronald G. Henry	Member
Kenneth M. Jarin	Member
Bonnie Keener	Member
Jonathan B. Mack	Member
Joseph F. McGinn	Member
C.R. "Chuck" Pennoni	Member
Sen. Jeffrey E. Piccola	Member
Harold C. Shields	Member
Robert S. Taylor	Member
Ronald J. Tomalis	Member
Sen. John T. Yudichak	Member

# Council of Trustees

Joshua B. Young, Chairperson	Coatesville
Eric L. Holmes, Vice-Chairperson	Pittsburgh
Grace O. Hawkins	Cranberry
Dr. John A. Hicks	Slippery Rock
Brandon A. Maharaj	Indiana
Dr. Robert Marcus	Harrisburg

Dr. Dennis E. Murray

Hollidaysburg

Robert Taylor

New Hope

Suzanne A. Vessella

Ellwood City

Dr. John C. Cavanaugh, Chancellor (ex-officio)

Pennsylvania State System of Higher Education

## **Slippery Rock Administration**

President

Cheryl J. Norton, Ed.D., M.Ed., M.A.

Assistant to the President

Tina L. Moser, B.S.

Executive Director of University Public Relations

Rita Abent, M.A.

Director of Internal Audit

Kimberly Greco, M.S.

## **Academic Affairs**

Provost and Vice President for Academic Affairs

Philip K. Way, Ph.D.

Assistant to the Provost for Academic Policies and Programs

Mary Hennessey, M.A.

Dean, College of Business, Information and Social Sciences

Kurt Schimmel, D.B.A.

Dean, College of Education

A. Keith Dils, Ed.D.

Dean, College of Health, Environment and Science

Susan Hannam, Ph.D.

Dean, College of Humanities, Fine and Performing Arts

Eva Tsuquiashi-Daddesio, Ph.D.

Associate Provost for Enrollment Services

Amanda Yale, Ed.D.

Associate Provost for Information & Administrative Tech Services

Director of Retention Services

Carla Hradisky-Coffelt, M.Ed.

Director (Executive) of Academic Records/Summer School and Graduate Studies

Elliott G. Baker, M.Ed.

Director of Academic Resources

Mary Ann King, B.A.

Director of Undergraduate Recruitment and Admissions

Michael May, M.B.A.

Director of the Office of Career Education and Development

John Rindy, M.P.H.

Director of Financial Aid

Patricia A. Hladio, M.S.

Director of Graduate Admissions

Brandi Webber-Mortimer, M.A.

Director of Grants and Sponsored Research

Nancy L. Cruikshank, M.S.

Director of Honors Program

Bradley Wilson, Ph.D.

Director for Information Technology

Dean W. Lindey

Director of Institutional Research

Carrie Birckbichler, M.S.

Director of International Services

Pamela Frigot, B.A.

Director of Library Services

Philip Tramdack, M.L.S.

Director of McKeever Environmental Learning Center

Francis N. Bires, M.S.

Director of Center for Student Involvement & Leadership

Brad Kovaleski, M.A.

## **Finance and Administration**

Interim Vice President for Finance and Administrative Affairs

Molly Mercer, B.S.

Executive Staff Assistant

Tina Proper, B.S.

Assistant Vice President for Diversity and Equal Opportunity

Holly McCoy, J.D.

Assistant Vice President for Construction Design and Management

Herb Carlson, M.S.

Assistant Vice President for Finance

Molly Mercer, B.S.

Assistant Vice President for Human Resources

Lynne M. Motyl, B.S.

Director of Accounting Services

Timothy L. Harlan, M.S.

Director of Budget & Fiscal Planning

Linda Moore, B.S.

Director of Contracts Management

James Revesz, M.A.

Director of Environmental Health and Safety

Paul Novak, M.P.H.

Director of Facilities

Scott Albert, M.B.A.

Director of Maintenance Services

Dallas R. Cott, B.S.

Director of Purchasing

Mark S. Combine, B.S.

## **Student Life**

Vice President for Student Life

Executive Staff Assistant

Claudia C. Fischer

Assistant Vice President for Student Services

John Bonando, Ed.D.

Assistant Vice President for Student Development

Paula Olivero, Ph.D.

Assistant to the Vice President for Student Life Administration	Debra L. Pincek, M.A.
Business Manager, SGA Cooperative Activities	
Director of Athletics	Paul Lueken, M.S.
Director of Campus Recreation	Gregory Sferra, M.S.
Director of Counseling Center	Carol Holland, D.P.H.
Director of Health Services	Kristina Chiprean, M.S.N.
Director of Multicultural Development	Corinne Gibson, M.Ed.
Director of University Union/Center for Student Involvement and Leadership	Christopher Cole, Ph.D.
Director of University Police	Michael Simmons

## University Advancement

Vice President for University Advancement	Barbara A. Ender, M.S.Ed.
Executive Staff Assistant	Jodi Hensel
Executive Director, Slippery Rock University Foundation	Edward R. Bucha, Ph.D.
Director of Development	Samantha Swift
Director of Alumni Engagement	Kelly Bailey, M.A.
Director of Advancement Services	Nicholas McIntire, B.S.

## Slippery Rock University Faculty

### A

Abney, Robertha, Associate Professor, Sport Management, South Carolina State College, B.S.; University of Pittsburgh, M.Ed.; University of Iowa, Ph.D.

Amatucci, Frances, Associate Professor, School of Business, University of Massachusetts, B.S.; University of Pittsburgh, M.B.A., Ph.D.

Ambrosio, Nora, Professor, Dance, University of Maryland, B.A.; Smith College, M.F.A.

Amodei, Michelle, Assistant Professor, Elementary Education/Early Childhood, Indiana University of Pennsylvania, B.S.; Duquesne University, M.S.; Indiana University of Pennsylvania, Ed.D.

Anand, Padma, Professor, Secondary Education/Foundations of Education, Bangalore University (India), B.A.; Mysore University (India), M.A.; Memphis State University, Ed.D.

Anderson, Melanie, Associate Professor, School of Business, Clarion University, B.S.; Pennsylvania State University, M.B.A.; University of Nebraska-Lincoln, Ph.D.



Anning, Jonathan H., Associate Professor, Exercise and Rehabilitative Sciences, Central Michigan University, B.A., M.A.; University of Toledo, Ph.D.

Argyle, Susan, Associate Professor, Elementary Education/Early Childhood, Idaho State University, B.A.; Kent State University, M.Ed., Ph.D.

Arnhold, Pamela, Assistant Professor, Physical Education, University of Wisconsin at La Crosse, B.S.; Slippery Rock University, M.S.

Arnhold, Robert W., Professor, Physical Education, Temple University, B.S.; University of Wisconsin at La Crosse, M.S.; Texas Woman's University, Ph.D.

## **B**

Badgett, M. Rebecca, Assistant Professor, Special Education, Slippery Rock University, B.S.Ed.; University of Pittsburgh, M.Ed.

Balok, Mrya, Assistant Professor, English, Edinboro University, B.S.; University of Pittsburgh, M.Ed., Ph.D.  
Barger-Anderson, Richael, Associate Professor, Special Education, Clarion University of PA, B.S., M.S.; Indiana University of PA, Ed.D.

Barnett, Brett, Associate Professor, Communication, Ohio State University, B.A.; University of Akron, M.A.; Bowling Green State University, Ph.D.

Barr, Stephen, Associate Professor, Music, Westminster College, B.M.; University of South Florida, M.M.; West Virginia University, D.M.A.

Barta-Smith, Nancy, Professor, English, Creighton University, B.A.; Iowa State University, M.A.; University of Iowa, Ph.D.

Bavaro, John, Associate Professor, Professional Studies Cornell University, BSN; California State University, M.A.; University of San Francisco, M.S.; University of Pittsburgh, Ed.D.

Bayer, Trudy, Assistant Professor, Communication Mercyhurst College, University of Louvaine, BA; University of Louvaine, M.A.; University of Pittsburgh, Ph.D.

Bechard, Thomas J., Assistant Professor, Public Health and Social Work Hubertus College, B.A.; University of Maine, B.A.; Barry University, M.S.W.; Adelphia University, D.S.W.

Beeching, Simon C., Professor, Biology University of Maine, B.A.; Indiana University, Ph.D.

Bergmann, William, Assistant Professor, History, Franklin and Marshall College, B.A.; University of Cincinnati, M.A., Ph.D.

Bernardo, Angela, Assistant Professor, Safety Management Slippery Rock University, B.S.; West Virginia University, M.S., Indiana University of Pennsylvania, Ph.D.

Berry, James, Assistant Professor, Music, Indiana University of Pennsylvania, B.S.; Duquesne University, M.M.

Bian, Wei, Associate Professor, Physical Education Beijing Institute of PE, B.Ed., M.Ed.; University of Northern Iowa, M.A.; University of Georgia, Ph.D.

Billek-Sawhney, Barbara, Associate Professor, School of Physical Therapy University of Pittsburgh, B.S., M.S.; Duquesne University, Ed.D.

Birckbichler, Paul J., Associate Professor, Chemistry, Duquesne University, B.S., Ph.D.

Bishop, Tricia, Assistant Professor, Art, Howard University, B.F.A.; Syracuse University, M.F.A.

Boerger, Elizabeth, Assistant Professor, Psychology, Grinnell College, B.A.; University of Texas at Austin, M.A.; University of Pittsburgh, M.S.; University of Texas at Austin, Ph.D.

Boggs, William O., Professor, English, Edinboro University of Pennsylvania, B.S., M.A.; Carnegie Mellon University, D.A.

Boliver, Bruce G., Assistant Professor, Parks and Recreation, Slippery Rock University, B.S., M.S.

Bost, Robert F., Jr., Associate Professor, Special Education, Slippery Rock University, B.S., M.Ed.; Duquesne University, Ed.D.

Bouchat, Rachele, Assistant Professor, Mathematics, University of Pittsburgh at Johnstown, B.A., University of Kentucky, M.A., Ph.D.

Braun, Jason, Assistant Professor, Counseling Center, Penn State University, B.S.; Wright State University, Pys.D.

Breitenstein, Larry, Assistant Professor, Public Health and Social Work, Eastern Kentucky University, B.A.; West Virginia University of Social Work, M.S.W.; University of Pittsburgh School of Social Work, Ph.D.

Brewer, Hannah, Assistant Professor, Physical Education, Lock Haven University, B.S.; Indiana University of Pennsylvania, M.Ed., Ed.D.

Brinjak, Cathy E., Assistant Professor, Academic Services, Grove City College, B.A.; Indiana University of Pennsylvania, M.A.

Brown, George P., Professor, Political Science, University of California at Santa Cruz, B.A.; University of California at Santa Barbara, M.A.; University of Washington, Ph.D.

Buck, Robert E., Professor, Mathematics, Georgetown University, B.S.; University of Dayton, M.S.; University of Pittsburgh, Ph.D.

Burkhart, Patrick A., Professor, Geography, Geology and the Environment, Case Western Reserve, B.A.; Wright State University, M.S.; Lehigh University, Ph.D.

Buttermore, John, Assistant Professor, School of Business, West Virginia University, B.S.; Seton Hall University, M.B.A. Indiana University of Pennsylvania, Ph.D.

## C

Cain, Vernice, Associate Professor, English, North Carolina A & T State University, B.S., M.A.; Bowling Green State University, Ph.D.

Cali, Joseph, Professor, Safety Management, Indiana University of Pennsylvania, B.A., M.A.; West Virginia University, Ed.D.

Campbell, Mark, Assistant Professor, Academic Services, Slippery Rock University, B.S., M.Ed.; University of Pittsburgh, B.A., Ed.D.

Campbell, Patricia A., Associate Professor, Geography, Geology and the Environment, University of Pittsburgh, B.S., M.S., Ph.D.

Carben, Jennifer, Assistant Professor, Parks and Recreation, Slippery Rock University, B.A., M.S.

Caula, Ana M., Associate Professor, Modern Languages and Cultures, Universidad Central de Venezuela, B.A.; University of Pittsburgh, M.A., Ph.D

Cavill, Wilma J., Assistant Professor, Safety Management, Slippery Rock University, B.S.; Westminster College, M.S.Ed.

Champion, David, Associate Professor, Criminology and Criminal Justice, State University of New York at Buffalo, B.A.; Ball State University, M.A.; Indiana University of Pennsylvania, Ph.D.

Chase, Mark E., Associate Professor, Communication, Indiana University of Pennsylvania, B.S.; Slippery Rock University, M.S.; University of Pittsburgh, Ed.D.

Chatterjee, Anindya, Professor, School of Business, Birla Institute of Technology and Science (India), M.M.S.; Temple University, Ph.D.

Chen, Xianfeng, Associate Professor, Geography, Geology and the Environment, Xinjian University (China), B.S.; Institute of Geography, Chinese Academy of Sciences, M.S.; West Virginia University, Ph.D.

Chen-Gaffey, Aiping, Assistant Professor, Library, Peking University B.A., M.A.; University of Pittsburgh, M.A., M.L.S.

Chmielewski, Jerry G., Professor, Biology, University of Waterloo (Canada), B.Sc., M.Sc., Ph.D.

Chovanes, John, Instructor, Physics and Pre-Engineering, Slippery Rock University, B.A., M.Ed.

Christmann, Edwin P., Professor, Secondary Education/Foundations of Education, California University of Pennsylvania, B.S.Ed., Pennsylvania State University, M.Ed.; Old Dominion University, Ph.D.

Clark, Gary, Assistant Professor, Physical Education, Lock Haven University, B.S.; Western Kentucky University, M.S., University of Pittsburgh, Ph.D.

Cleary, Michael , Professor, Public Health and Social Work, Indiana University, B.S., M.S.; Ball State University, Ed.D.

Cobb, Thom L., Associate Professor, Dance, Illinois State University, B.S., M.S.

Cohen, Deborah J., Professor, Modern Languages and Cultures, Colby College, B.A.; University of Kansas, M.A., Ph.D.

Colvin, Andrew, Assistant Professor, Philosophy, Ohio State University, B.A., M.A.; University of Hawaii, Ph.D.

Como, Thomas J., Associate Professor, Art, Indiana University of Pennsylvania, B.F.A.; Kent State University, M.F.A.

Condrary, Joan C., Professor, English; Gettysburg College, B.A., Shippensburg University, M.S.; Indiana University of Pennsylvania, Ph.D.

Conlon, Michael P., Associate Professor, Computer Science, State University of New York at Stony Brook, B.S., M.A.; New York Institute of Technology, M.S.; Clarkson University, Ph.D.

Cooke, Colleen A., Associate Professor, Parks and Recreation, Slippery Rock University, B.S.; University of Pittsburgh, M.Ed., Nova Southeastern University, Ed.D.

Cooklin, Katherine L., Assistant Professor, Philosophy, University of Southern Maine, B.A.; Lewis and Clark College, M.S.; University of Texas at Austin, Ph.D.

Cortijo, Maria, Associate Professor, Modern Languages and Cultures, Universidad Complutense de Madrid, B.A.; Universidad San Pablo-Madrid, M.A.; Texas Tech University, M.A.; University of California-Berkley, Ph.D.

Cosgrove, Cornelius, Professor, English, Le Moyne College, B.A.; Pennsylvania State University, M.A.; State University of New York at Buffalo, Ph.D.

Covey, William B., Associate Professor, English, Northern Illinois University, B.A., M.A.; Purdue University, Ph.D.

Cowan, Aaron, Assistant Professor, History, Kings College, B.A., M.A.; University of Cincinnati, M.A., Ph.D.

Crafton, Robert E., Associate Professor, English, University of Delaware, B.A.; University of Virginia, M.A.; Washington University, M.A., Ph. D.

Craig, John M., Professor, History, State University of New York at Albany, B.A., M.A.; College of William and Mary, Ph.D.

Creasy, Kim, Associate Professor, Elementary Education/Early Childhood, Ashland University, B.S., Westminster College, M.Ed., University of Akron, Ph.D.

Crow, Brian, Associate Professor, Sport Management, West Liberty State College, B.S.; West Virginia University, M.B.A., Ed.D.

Cubero, Chris, Assistant Professor, Counseling Center, Penn State University, B.S.; East Carolina University, M.S.; East Carolina University, Ph.D.

Culp, David B., Professor, School of Business, Southern Illinois University, B.A.; Central Michigan University, M.A.; Southern Illinois University, Ph.D.

## **D**

Daddesio, Thomas C., Associate Professor, Modern Languages and Cultures, Syracuse University, B.A.; Universit J de la Sorbonne Nouvelle, ma T trise, docteur P s lettres.

Dafoe, Nicole, Assistant Professor, Biology, Grand Valley State University, B.S.; University of Victoria, Ph.D.

Dailey, David P., Professor, Computer Science, University of New Mexico, B.S.; University of Colorado, Ph.D.

Danielson, Stentor, Assistant Professor, Geography, Geology, and the Environment Colgate University, B.A.; Clark University, Ph.D.

Davidson, Warren, Assistant Professor, Music, Duquesne University B.S., M.M.; University of Pittsburgh, M.A. ; West Virginia University, D.M.A.

DeCarlo, Carmine, Professor, Elementary Education/Early Childhood, Mercyhurst College, B.A., Edinboro University, M.S.; Pennsylvania State University, Ph.D.

Del Vecchio, Alice, Assistant Professor, Professional Studies, Lakeland College, B.A.; Sangamon State University, M.P.A.

DeNicola, Dean M., Professor, Biology, University of Vermont, B.A.; University of Maine, M.S.; Oregon State University, Ph.D.

Denning, Margaret B., Professor, History, University of Florida, B.S.; University of Zurich (Switzerland), Lizentiat, Ph.D.

Detlefsen, Michael E., Professor, Mathematics, University of Oregon, B.A.; State University of Iowa, M.S., Ph.D.

Dicus, Jeremy, Assistant Professor, Exercise and Rehabilitative Sciences, High Point University, B.S.; Ohio University, M.S., Ph.D.

DiMarco, Danette, Professor, English, Duquesne University, B.A., M.A., Ph.D.

Dockter, DuWayne, Associate Professor, School of Business, California State University, B.A., M.A.; Utah State University, Ed.D.

Donahue, Martin, Assistant Professor, Physical Education, Castleton State College, B.S.; Indiana State University, M.S.; New Mexico State University, Ph.D.

DuPont, Sherry, Associate Professor, Elementary Education/Early Childhood, Liberty University, B.S.; Indiana University of Pennsylvania, M.Ed.; Pennsylvania State University, Ph.D.

Dziubek, Daniel R., Associate Professor, Parks and Recreation, West Virginia University, B.S.; Pennsylvania State University, M.S.; University of Pittsburgh, Ed.D.

## **E**

Edwards, June, C., Associate Professor, Art, Mansfield University, B.S.; Brooklyn College, M.F.A.

Evans, William, Associate Professor, Counseling and Development, Penn State University, B.A.; Youngstown State, M.Ed.; Kent State University, Ph.D.

## **F**

Fagan, Wendy, Instructor, Physical Education, Indiana University, B.S.; Texas Woman's University, M.S.

Fergany, Adel A., Associate Professor, Computer Science, Cairo University, B.S.; Illinois Institute of Technology, M.S., Ph.D.

Findlan, Cinda, Assistant Professor, Elementary Education/Early Childhood, Clarion University, B.S.; Edinboro University, M.Ed.; Indiana University, Ed.D.

Findler, Richard S., Professor, Philosophy, Slippery Rock University, B.A.; Duquesne University, M.A.; Loyola University of Chicago, Ph.D.

Flynn, Thomas R., Professor, Communication, University of Toledo, B.A.; Ohio University, M.A.; University of Nebraska, Ph.D.

Forbes, Wayne, M., Assistant Professor, Biology, University of West Indies, B.S., Ph.D.

Forrest, Jeffrey, Professor, Mathematics, Northwestern University (China), B.S., M.S.; Auburn University, Ph.D.

Forrest, Kimberly, Professor, Public Health and Social Work, Medical School of Shanghai, B.P.N.; Slippery Rock University, M.S.; University of Pittsburgh, M.P.H., Ph.D.

Foster, Jennifer, A., Assistant Professor, Communication, Chatham College, B.A.; University of Pittsburgh, M.Ed.; Ed.D.

Frederick, Heather, Assistant Professor, Political Science, Hollins College, B.A.; West Virginia University, M.A., Ph.D.

Frohnappfel, David, Instructor, Chemistry, University of Pittsburgh, B.S.; University of North Carolina at Chapel Hill, Ph.D.

## **G**

Galbraith, Diane, Associate Professor, School of Business, Indiana University of Pennsylvania, B.S.; LaRoche College, M.S.; Indiana University of Pennsylvania, Ed.D.

Galletta, Carole, Assistant Professor, School of Physical Therapy, University of Pittsburgh, B.S.; University of Minnesota, M.P.H.

Getsay, Heather, Instructor, Library, Westminster College, B.A., University of Pittsburgh, M.L.I.S.

Glover, David, F., Associate Professor, Music, University of North Florida, B.M.; Florida State University, M.M.; University of Texas (Austin) D.M.A.

Gocal, Beverly, Assistant Professor, Computer Science, Pennsylvania State University, B.S.; Cleveland State University, M.S.; Kent State University, Ph.D.

Gonul, Fusun, Associate Professor, School of Business, Middle East Tech University, B.S.; Case Western Reserve University, M.A.; Ohio State University, Ph.D.

Gordon, Thomas, Professor, Elementary Education/ Early Childhood, Duquesne University, B.A., University of North Carolina, M.S., Ph.D.

Grabner, Elise M., Professor, Mathematics, Ohio University, B.S., M.S., Ph.D.

Grabner, Gary C., Associate Professor, Mathematics, Ohio University, B.S., M.S., Ph.D.

Grant, Patrick, Professor, Special Education, Lincoln University, B.S., M.A.; University of Oregon, Ed.D.

Gray, Colleen G., Associate Professor, Music, West Chester University, B.S.; Duquesne University, M.M.; West Virginia University, D.M.A.

Grimm, Richard, Associate Professor, School of Business, Youngstown State University, BSBA, M.B.A.; Kent State University, Ph.D.

## **H**

Hadley, Susan J., Professor, Music, University of Melbourne (Australia), B.M.; University of Western Australia, Dip. Ed.; Temple University, M.M.T., Ph.D.

Haines, Martina, L., Assistant Professor, Library, Catholic University of America, B.A.; Kent State University, M.L.S.; Youngstown State University, M.H.H.S.

Hale, Jane, Assistant Professor, Counseling & Development, Westminster College, B.A.; Youngstown State University, M.S.

Harrington, Maria, Assistant Professor, Computer Science, Carnegie Mellon University, B.S.; University of Pittsburgh, M.S., Ph.D.

Harry, Joseph C., Associate Professor, Communication, University of North Florida, B.A.; Ohio State University, M.A.; Michigan State University, Ph.D.

Hartmann, Heike, Assistant Professor, Geography, Geology and the Environment, University of Wurzburg-Germany, B.S.; Justus Liebig University-Germany, M.S., Ph.D.

Harvey, Patrick, Assistant Professor, Criminology and Criminal Justice, University of Michigan, B.S., M.S.; Indiana University of Pennsylvania, Ph.D.

Hathaway, James, Professor, Geography, Geology and the Environment, University of Minnesota, B.A., M.A., Ph.D.

Hawk, Stephen L., Professor, Music, Western Illinois University, B.A., University of Texas, M.M., D.M.A.

Heilman-Houser, Rose, Associate Professor, Elementary Education/Early Childhood, Indiana University of Pennsylvania, B.A., M.A., Ed.D

Herat, Athula, Assistant Professor, Physics and Pre-Engineering, University of Colombo (Sri Lanka), B.S.; University of Cincinnati, MS, Ph.D.

Herman, Susan L., Assistant Professor, Exercise and Rehabilitative Sciences, Lock Haven University, B.S.; Slippery Rock University, M.Ed.

Hertel, Heather, Assistant Professor, Art, Syracuse University, B.F.A., M.S.; Edinboro University, M.F.A.

Hicks, John, Assistant Professor, Secondary Education/Foundations of Education, Slippery Rock University, B.A.; University of Notre Dame, M.A.; Indiana University of Pennsylvania, Ph.D.

Higgs, Catriona, Professor, Sport Management, Dunfermline College (Scotland), B.Ed.; University of Stirling (Scotland), M.S.; Texas Woman's University, Ph.D.

Hilton, Jason, Assistant Professor, Secondary Education/Foundations of Education, Edinboro University of Pennsylvania, B.S.; University of Pittsburgh, M.Ed., Ph.D.

Hoffmann, Lynn, Assistant Professor, Library, Kent State University, M.L.S.; University of Wisconsin-Oshkosh, B.A.E.; Cooperstown Graduate Programs, M.A.

Holbein-Jenny, Mary Ann, Professor, School of Physical Therapy, University of Pittsburgh, B.S., M.S., Ph.D.

Holland, Carol, Associate Professor, Counseling Center, Seton Hall, B.A.; Clarion University, B.S.; Slippery Rock University, M.A.; University of Pittsburgh, D.P.H.

Holmstrup, Michael, Assistant Professor, Exercise and Rehabilitative Sciences, East Stroudsburg University of Pennsylvania, B.S., M.S.; Syracuse University, Ph.D.

Hrizo, Stacy, Assistant Professor, Biology, West Chester University, B.S.; University of Pittsburgh, Ph.D.

Hughes, Christopher J., Professor, School of Physical Therapy, Springfield College, B.S., M.S.; University of Virginia, Ph.D.

Hulick, Frank W., Assistant Professor, Computer Science, Clarion University, B.S.; Johns Hopkins University, M.S.

Hull, Ethan, Assistant Professor, Physical Education, University of Pittsburgh, B.S.; East Stroudsburg University, M. Ed., University of Pittsburgh, M.S., Ph.D.

Hunt, Herbert, Assistant to the Dean and Assistant Professor, Elementary Education/Early Childhood, Slippery Rock University, B.S., M.S., University of Akron, Ph.D.

Hutchins, Deborah, Assistant Professor, Parks and Recreation, Pennsylvania State University, B.S.; University of North Carolina, M.S.; Nova Southeastern University, Ed. D.

## I

Ignelzi, Michael G., Professor, Counseling and Development, University of California at Riverside, B.A.; Ohio State University, M.A.; Harvard University, Ed.D.

Iossifova, Albena, Assistant Professor, School of Business, University of Economics (Bulgaria), B.S., M.S.; University of Minnesota, Ph.D.

Isherwood, Robert, Associate Professor, Special Education, Slippery Rock University, B.S.; University of Pittsburgh, M.Ed., Ed.D.

Ishimaru, Yukako, Instructor, Modern Languages and Cultures, Saga University, B.A.

Ismail, Mohammad, Professor, Mathematics, University of Punjab, B.S.; University of Istambad, M.S.; University of Pittsburgh, Ph.D.

## J

Jackson, Dallas, Assistant Professor, Physical Education, University of North Texas, B.S.; Texas Woman's University, M.S., Ph.D.

Jacob, Stacy, Assistant Professor, Counseling and Development, Austin College, B.A.; University of New Orleans, M.A.; Indiana University, Ph.D.

Jenny, Geraldine, Assistant Professor, Elementary Education/Early Childhood, Taylor University, B.S.; Shippensburg, M.Ed.; Duquesne University, Ed.D.

Jensen, Brock, Assistant Professor, Exercise and Rehabilitative Sciences, Northern Michigan University, B.S., M.S.; University of Northern Colorado, Ph.D.

Jiang, Xin, Assistant Professor, Criminology and Criminal Justice, Central China Normal University, B.A.; University of Toledo, M.A.; Ohio State University, Ph.D.

Jirasakuldech, Benjamas, Associate Professor, School of Business, Assumption University, Thailand B.A.; Texas Tech University, M.S.; University of Nebraska-Lincoln, Ph.D.

Johnston, Elisabeth, Assistant Professor, Elementary Education/Early Childhood, University of Connecticut, B.S., M.A.; University of North Texas, Ph.D.

Jones, Diana, Assistant Professor, Nursing, Indiana University Northwest, BSN; Purdue University, M.S.; Northern Illinois University, Ed.D.

Jones, Herman A., Associate Professor, Public Health and Social Work, Wilberforce University, B.A.; University of Pittsburgh, M.S.W., Ph.D.

Joshi, Sharadchandra W., Professor, Computer Science, University of Poons (India), M.S.; Pennsylvania State University, Ph.D.

Jung, Jiyoung, Assistant Professor, Chemistry, Sungshin Women's University, B.S.; Korea Institute of Science & SWU, M.S.; University of North Texas, Ph.D.



## **K**

Katsafanas, Jodi, Assistant Professor, Special Education, Duquesne University, B.S.; University of Pittsburgh, M.Ed., Ed.D

Keller, Jennifer, Professor, Dance, Connecticut College, B.A.; Arizona State University, M.F.A.

Kerchis, Donald, Assistant Professor, Political Science, Georgetown University, B.S.; University of Pittsburgh, M.S., Ph.D.

Kershaw, David, Assistant Professor, Political Science, West Virginia University, B.A., B.S.; Illinois State University, M.A.; University of North Carolina, Ph.D.

Khalili, Ahmad, Associate Professor, Professional Studies, Tehran School of Social Work (Iran), B.A.; Michigan State University, M.A., Ph.D.

Kovacs, Istvan, Assistant Professor, Physical Education, Hungarian University of Physical Education, B.S., M.S.; Eotvos Lorand University (Budapest), Ph.D.

Krayesky, David, Assistant Professor, Biology, Johnson State College, B.S.; Southern Illinois University, M.S.; University of Louisiana, Ph.D.

Kreiser, Christopher, J., Assistant Professor, English, Tulane University, B.A.; Texas A & M University, M.A., Ph.D.

Kuehn, Sarah, Assistant Professor, Criminology and Criminal Justice, Simon Fraser University, M.A., Ph.D.

Kushner, Susan R., Associate Professor, School of Physical Therapy, University of Pittsburgh, B.S.; Columbia University, M.S.

## **L**

LaCom, Cindy, Professor, English, California State University, Chico, B.A., M.A.; University of Oregon, Ph.D.

Larouere, Beth, Assistant Professor, Exercise and Rehabilitative Sciences, Slippery Rock University, B.S., M.S.; University of Pittsburgh, Ph.D.

Larson, Stephen, Assistant Professor, Computer Science, Brigham Young University, B.A., M.P.A.; Mercer University, M.S.; Virginia Commonwealth University, Ph.D.

Lasarenko, Jane, Assistant Professor, English, State University of New York at Binghamton, B.A., M.A.; Ohio State University, Ph.D.

Laux, James L., Associate Professor, Communication, Bowling Green State University, B.S., M.A., Ph.D.

Layne, Jack R., Professor, Biology, University of Evansville, B.S.; Miami University, M.S., Ph.D.

Leeds, Marcy J., Professor, Public Health and Social Work, Montclair State University, B.S.; American Dietetic Association, R.D.; Case Western Reserve University, M.S.; Rutgers University, Ph.D.

Lehman, Jeffrey R., Professor, Secondary Education/Foundations of Education, University of Delaware, B.S.; Pennsylvania State University, M.S.; University of Florida, Ph.D.

Leight, Joanne M., Associate Professor, Physical Education, Slippery Rock University, B.S., M.S.; Duquesne University, Ed.D.

Leining, Christopher P., Instructor, Parks and Recreation, Iowa State University, B.A.

Levy, Alan H., Professor, History, Washington and Jefferson College, B.A.; University of Wisconsin at Madison, M.A., Ph.D.

Lim, Min, Assistant Professor, Chemistry, Chungnam National University, B.S.; University of Houston, Ph.D.

Lindenberg, Kelly, Associate Professor, School of Physical Therapy, College Misericordia, B.S., M.S.; Duquesne University, Ph.D.

Lindgren, William F., Professor, Mathematics, South Dakota School of Mines and Technology, B.S., M.S.; Southern Illinois University, Ph.D.

Lisciandro, Joseph A., Assistant Professor, Professional Studies, Slippery Rock University, B.A.; Clarion University, M.B.A.; C.P.A.

Lisco, John F., Associate Professor, Parks and Recreation, Mesa State College, B.S.; University of Memphis, M.S., Ed.D.

Liu, Wenhao, Associate Professor, Physical Education, Wuhan Institute of Physical Education (China) B.Ed.; University of Northern Iowa, M.A.; University of Georgia, Ph.D.

Livingston, Jack , Associate Professor, Geography, Geology and the Environment, Augusta College, B.A.; University of Kansas, M.A., Ph.D.

Love, Gerard, Associate Professor, Counseling and Development, St. Norbert College, B.A.; University Missouri, M.A.; Vanderbilt University, Ed.D.

Lubinski, Susan L., Associate Professor, Professional Studies, Youngstown State University, B.S.B.A.; CPA; Grove City College, M.S.; Duquesne University, J.D.

Lueken, Paul, Assistant Professor, Physical Education; Director of Athletics, Earlham College, B.A.; St. Thomas University, M.S.

Lusher, Anna, Associate Professor, School of Business, Marshall University, B.A., M.B.A.; West Virginia University, Ed.D.

Lynch, Jeremy, Assistant Professor, Special Education, West Virginia Wesleyan College, B.A.; West Virginia University, M.A.; Ed.D.

Lynn, Jeffrey, S., Associate Professor, Exercise and Rehabilitative Sciences, Kent State University, B.A.; M.A.; Ph.D.

## **M**

Macmillan, Sean, Assistant Professor, Art, Edinboro University, B.F.A.; University of Kansas, M.F.A.

Mahmood, Rizwan, Professor, Physics and Pre-Engineering, University of Karachi (Pakistan), B.Sc., M.Sc.; University of Texas at Arlington, M.A.; Kent State University, M.A., Ph.D.

Mani, Jaya, Instructor, Dance, University of Madres, B.A.; Slippery Rock University, M.S.

Marchand, Richard, Associate Professor, Mathematics, Clarion University, B.S.; University of Virginia, Ph.D.

Martin, Richard T., Professor, Political Science, Ohio State University, B.A.; Kent State University, M.A., Ph.D.

Martin-Elkins, Carol, Professor, School of Physical Therapy, University of Wyoming, B.S.; State University of New York at Syracuse, Ph.D.

Massey, Catherine, Associate Professor, Psychology, University of Central Florida in Orlando, B.S.; West Virginia University, M.A., Ph.D.

Matambanadzo, Michael A., Assistant Professor, History, Fordham University, B.A., M.A.

McCarren III, Joseph, Associate Professor, English, Alfred University, B.A.; Slippery Rock University, M.A.; Indiana University of Pennsylvania, Ph.D.

McCarthy, Larry J., Assistant Professor, Professional Studies and Assistant to the Dean, College of Business, Information and Social Sciences Slippery Rock University, B.S.; University of Pittsburgh, M.B.A.; C.P.A.

McCarthy, Patrice, Associate Professor, Nursing, Ohio State University, B.S.N.; Case Western Reserve University, M.S.N.; University of Colorado, Ph.D.

McCollin, Michelle, Associate Professor, Special Education, Syracuse University, B.A.; Long Island University, M.S.; Southern University and A & M College, Ph.D.

McIntosh, Daniel, Associate Professor, Political Science, University of Missouri at Columbia, B.A.; University of Denver, M.A., Ph.D.

Melago, Kathleen, Assistant Professor, Music, Slippery Rock University, B.S.; University of Northern Iowa, M.M.; Ohio State University, D.M.A.

Merhaut, Joseph, Associate Professor, Special Education, Slippery Rock University, B.Ed.; California University of PA, M.Ed.; Duquesne University, Ed.D.

Meztli, I. T., Assistant Professor, English, University of Texas (Austin), B.A.; M.A.; Ohio State University, Ph.D.

Michaels, Margaret, Associate Professor, School of Physical Therapy, MacMurray College, B.A.; Old Dominion University, M.S.; University of Pittsburgh, Ph.D.

Mickle, Katherine, L., Associate Professor, Art, Slippery Rock University, B.F.A.; Stephen Austin State University, M.A.; Ohio State University, M.F.A.

Mihalik, George J., Professor, Safety Management, Slippery Rock University, B.S., M.Ed.; West Virginia University, Ed.D.

Miller, J. Lyn, Assistant Professor, Mathematics, Slippery Rock University, B.S.; University of Maryland, Ph.D.

Miller, MaryBeth, Associate Professor, Physical Education, Western Michigan University, B.S.; University of Pittsburgh, M.Ed., Ph.D.

Mitchell, Melissa, Assistant Professor, Counseling Center, Washington and Jefferson College, B.A.; Nova Southeastern University M.S., D. Psy.

Monfore, Dorothea (Mike), Assistant Professor, Special Education, University of North Texas, B.S., M.Ed., Ph.D.

Mong, Donald, Assistant Professor, School of Business, Haverford College, B.A.; University of Pittsburgh, M.B.A., J.D.

Morrice, Rebecca R., Assistant Professor, Theatre, University of Illinois, B.A., M.F.A.

Mraz, Mark, Assistant Professor, Secondary Education/Foundations of Education, Indiana University of Pennsylvania, B.S., M.A.; Pennsylvania State University, Ph.D.

Mukherjee, Krishna, Assistant Professor, Physics and Pre-Engineering, University of Calcutta (India), B.Sc., M.Sc.; University of Kansas, M.S.; University of Pittsburgh Ph.D.

Mullins, Paul, Professor, Computer Science, Youngstown State University, B.E., M.S.; University of Pittsburgh, Ph.D.

## **N**

Nicholls, Jeananne, Associate Professor, School of Business, Carlow University, B.S.; Duquesne University, M.B.A.; Kennesaw State University, D.B.A.

Nichols, Randall A., Associate Professor, Physical Education, Slippery Rock University, B.S.; M.Ed.; West Virginia University Ed.D.

Niebauer, Christopher, L., Associate Professor, Psychology, Kent State University, B.A.; University of Toledo, M.A., Ph.D.

Nolen-Holland, Nola, Assistant Professor, Dance, University of Oklahoma, B.F.A., M.F.A.

Noorbakhsh, Abbas, Professor, School of Business, University of Tehran (Iran), B.A.; University of Kansas, M.S.; Kansas State University, Ph.D.

## **O**

O'Connor, Mark, Associate Professor, English, Georgetown University, B.A.; University of Houston, M.A., Ph.D.

Oldakowski, Timothy, Assistant Professor, English, Duquesne University, B.A.

Ogoreuc, Robert E., Assistant Professor, Physical Education, Indiana University of Pennsylvania, B.S.; Slippery Rock University, M.Ed.

Orvis, Bruce T., Associate Professor, School of Business, University of Nebraska, B.S.; University of Oklahoma, M.B.A.; University of Oklahoma, Ph.D.

## **P**

Paradis, Lia, Associate Professor, History, Hunter College of the City-University of New York, B.S.; State University of New Jersey-Rutgers, Ph.D.

Parsons, Susan, Assistant Professor, Academic Services, Pennsylvania State University, B.A.; Slippery Rock University, M.A.

Payne, Ursula O., Professor, Dance, Slippery Rock University, B.A.; Ohio State University, M.F.A.

Peacock, J. Sunita, Associate Professor, English, University of Madras (India), B.A.; University of North Texas, M.A.; Southern Illinois University, Ph.D.

Pearcy, Thomas L., Professor, History, Purdue University, B.A., M.A.; University of Miami, Ph.D.

Pease-Hernandez, Christine, Assistant Professor, Communication, Saginaw Valley State University, B.A.; Central Michigan University, M.A.; Bowling Green University M.A., Ph.D.

Permenter, Rachela R., Professor, English, Kent State University, B.S., M.A.; Northern Illinois University, Ph.D.

Phetteplace, Gordon R., Associate Professor, Theatre, Lawrence University, B.A.; University of Montana, M.F.A.

Pierce, Patricia, Professor, Exercise and Rehabilitative Sciences, Slippery Rock University, B.S., University of Pittsburgh, M.S., Ph.D.

Pitard, Derrick, G., Professor, English, Washington and Lee University, B.A.; University of Oxford (England), M.Phil.; University of Rochester, M.A., Ph.D.

Pitluga, Kurt W., Assistant Professor, Art, Edinboro University, B.A.; Pennsylvania State University, M.A., Ph.D.

Policicchio, Armand, Associate Professor, Professional Studies, St. Vincent College, B.A.; Seton Hall University, M.A.; University of Pittsburgh, Ph.D.

Preston, James, Assistant Professor, Elementary Education/Early Childhood, Indiana University of Pennsylvania, B.Ed., M.Ed., Ed.D.

Pu, Li, Assistant Professor, Communication, Sichuan International Studies University, B.A.; Southern Illinois University, M.S.; University of Oregon, Ph.D.

## Q

Quinn, Katrina, Associate Professor, Communication, University of Notre Dame, B.A.; Indiana University of Pennsylvania, M.A., Ph.D.

## R

Rehorek, Susan S., Associate Professor, Biology, University of Adelaide, Australia, B.S., Ph.D.

Reilly, Colleen, Assistant Professor, Theatre, College of Charleston, B.A.; University of South Carolina, M.A.; University of Pittsburgh M.L.I.S., Ph.D.

Rieder, Paula, Assistant Professor, History, Our Lady of Cincinnati College, B.A.; University of Illinois at Urbana, M.A., Ph.D.

Risco, Kerry S., Assistant Professor, Nursing, Sharon General Hospital School of Nursing, R.N.; Slippery Rock University, B.S.N.; University of Pittsburgh, M.S.N.; Duquesne University, Ph.D.

Roberts, Gary B., Associate Professor, Mathematics, Arkansas State University, B.S.; Purdue University, M.S., Ph.D.

Rollins, Raymond, Instructor, Athletics, Edinboro University, B.S., M.A.; Cleveland State University, M.B.A.

Romanczyk, Ann, Assistant Professor, Psychology, State University of New York at Oswego, B.S.; De Paul University, M.A., Ph.D.

Rose, Suzanne, Professor, Elementary Education/Early Childhood, Bloomsburg University, B.A.; Bucknell University, M.Ed., Pennsylvania State University, Ph.D.

Rudowsky, Catherine, Assistant Professor, Library, Ashland University, B.A.; University of Pittsburgh, M.L.S.

Russo, Mary Frances, Professor, Counseling and Development, Mary Washington College, B.S.; University of Georgia, M.S., Ph.D.

Ryan, William J., Associate Professor, Exercise and Rehabilitative Sciences, St. Louis University, B.S.N., M.S.N.; University of Pittsburgh, M.P.H.; University of Wisconsin, Ph.D.

## S

Salsovic, Annette, Assistant Professor, Academic Services, Slippery Rock University, B.S.; Indiana University of Pennsylvania, M.S.

Sanftner, Jennifer L., Professor, Psychology, George Mason University, B.A.; Kent State University, M.A., Ph.D.

Schiappa, Tamra, Associate Professor, Geography, Geology and the Environment, State University of New York at Plattsburgh, B.S.; University of Idaho, Ph.D.

Schnupp, Rebecca, Assistant Professor, Criminology and Criminal Justice, Emory University, B.A.; University of Cincinnati, M.S., Ph.D.

Schublova, Marketa, Assistant Professor, Exercise and Rehabilitative Sciences, Slippery Rock University, B.S.; Ohio University, M.S., Ph.D.

Scott, Erica L., Associate Professor, English, Pennsylvania State University, B.A.; Gannon University, M.A.; Miami University (Oxford, Ohio), M.A., Ph.D.

Shaevitz, Ben A., Professor, Physics and Pre-Engineering, Purdue University, B.S.; Pennsylvania State University, Ph.D.

Shahidi, Ahmad, Associate Professor, School of Business, Sharif University of Technology, B.S., M.S.; University of Pittsburgh, M.A., Ph.D.

Sherwin, Daniel M., Instructor, Safety Management, Indiana University of Pennsylvania, B.S.Ed.; Slippery Rock University, M.S.Ed.; West Virginia University, M.S.

Shields, Darla, Assistant Professor, Elementary Education/Early Childhood, University of Pittsburgh, B.S.; Duquesne University, M.S.; Indiana University of Pa., Ed.D.

Shipe, Nancy, Assistant Professor, School of Physical Therapy, University of Pittsburgh, B.S., M.S.; MGH Institution of Health Professionals, D.P.T.

Shiple, Peggy, Assistant Professor, Nursing, Penn State University, B.S.; University of Phoenix, M.S.; Penn State University, Ph.D.

Shotwell, Mark A., Associate Professor, Biology, Ohio University, B.S.; University of Michigan, Ph.D.

Shumway, Jon R., Associate Professor, Art, Luther College, B.A.; University of Iowa, M.A., M.F.A.

Sigmund, William R., Professor, Biology, Kent State University, B.A.; Indiana University, Ph.D.

Silva, Judith, Assistant Professor, Library, University of California at Santa Cruz, B.A.; University of Pittsburgh, M.L.S.

Siple, Bonnie J., Assistant Professor, Exercise and Rehabilitative Sciences, Slippery Rock University, B.S.; Indiana University, M.S.; Duquesne University, Ed. D.

Sisak, Mary E., Assistant Professor, Chemistry, County College of Morris, A.A.; Lynchburg College, B.S.; University of Virginia, Ph.D.

Skeele, David B., Professor, Theatre, Marlboro College, B.A.; Smith College, M.A.; University of New Orleans, M.F.A.; University of Pittsburgh, Ph.D.

Slanina, Anne, Associate Professor, Elementary Education/Early Childhood, Youngstown State University, B.S., M.S.; Kent State University, Ph.D.

Slautterback, Louis, Instructor, Physical Education, Slippery Rock University, B.S., M.Ed.

Smiley, Laura, Associate Professor, Theatre, Catholic University of America, B.F.A.; University of Pittsburgh, M.F.A.

Smith, Jane M., Assistant Professor, Library, Grove City College, B.A.; Clarion University, M.S.

Smith, Jeffrey, Assistant Professor, Physical Education, Slippery Rock University, B.S., M.S.

Smith, Kimberly, Associate Professor, Exercise and Rehabilitative Sciences, Slippery Rock University, B.S.; University of Pittsburgh, M.S., Ph.D.

Smith, Langdon, Associate Professor, Geography, Geology and the Environment, University of Wyoming, B.S.; University of Kansas, Ph.D.

Smith, Timothy D., Professor, School of Physical Therapy, Carnegie-Mellon University, B.F.A.; University of Pittsburgh, M.A., Ph.D.

Snow, Julie, Associate Professor, Geography, Geology and the Environment, Wittenberg University, B.S.; University of Rhode Island, M.S., Ph.D.

Snyder, Robert C., Associate Professor, Elementary Education/Early Childhood, Slippery Rock University, B.S.; Slippery Rock University, M.Ed.; University of Pittsburgh, Ph.D.

Soeder, Pamela J., Professor, Elementary Education/Early Childhood, Mount Senario College, B.S.; University of Wisconsin at Madison, M.A., Ph.D.

Solano, Roger, Associate Professor, School of Business, Universidad Del Zulia, B.S.; New Jersey Institute of Technology, M.S., Ph.D.

Solomon, Nanette K., Professor, Music, Yale College, B.A.; Yale School of Music, M.M.; Boston University, D.M.A.

Spadine Taylor, Lynn M., Assistant Professor, Physical Education, State University of New York at Cortland, B.S.E., M.S.

Stapleton, Michael G., Associate Professor, Geography, Geology and the Environment, Wilkes College, B.S.; University of Delaware, Ph.D.

Steele, Stacey G., Assistant Professor, Music, Wichita State University, B.M.E.; North Texas State University, M.M.

Steglich, Carolyn S., Professor, Biology, University of Texas, B.A.; University of Wisconsin at Madison, Ph.D.

Stewart, Thomas D., Associate Professor, Communication, Slippery Rock University, B.A.; University of Iowa, M.A., Ph.D.

Strain, Steven, Professor, Biology, Memphis State University, B.S.; Oregon State University, Ph.D.

Strano, Donald, Professor, Counseling and Development, Pennsylvania State University, B.A., Texas Tech University, M.Ed., Ed.D.

Strickland, K. James, Professor, English, Le Moyne College, B.A.; Kent State University, M.A.; Indiana University of Pennsylvania, Ph.D.

Stromp, LaLanda M., Assistant Professor, Parks and Recreation, Kent State University, B.S.; Indiana University, M.S.

Stuart, Jason, Assistant Professor, English, Immaculata University, B.A.; Slippery Rock University, M.A.; Case Western Reserve University, Ph.D.

Stubbs, Lorraine, Instructor, Academic Services, University at Buffalo, B.A., M.Ed.

Stuhldreher, Wendy L., Professor, Public Health and Social Work; Assistant to the Dean, College of Health, Environment, and Science  
Kent State University, B.S., M.S.; University of Pittsburgh, Ph.D.

Swarts, Valerie, Professor, Communication, Wichita State University, B.A.; Colorado State University, M.A.;  
University of Iowa, Ph.D.

Sykora, Sharon A., Associate Professor, Political Science, Cleveland State University, B.A.; University of Maryland,  
M.A., Ph.D.

Szymanski, Andrzej, Professor, Mathematics, Jagiellonian University (Poland), B.S.; Silesian University (Poland),  
M.S., Ph.D.

## T

Tallapally, Pavani, Associate Professor, School of Business, Osmania University, B.A.; Indiana University, M.B.A.;  
Louisiana Tech University, Ph.D.

Tannery, Frederick J., Associate Professor, School of Business, Pennsylvania State University, B.S.; University of  
Pittsburgh, Ph.D.

Teodoro, Melissa, Assistant Professor, Dance, Pontificia Universidad Javeriana, B.A.; University of California, M.A.;  
University of Hawaii, M.F.A.

Thangiah, Sam R., Professor, Computer Science, Slippery Rock University, B.S.; North Dakota State University, M.S.,  
Ph.D.

Thurkettle, Mary Ann, Associate Professor, Nursing, Case Western Reserve University, B.S.N.; Ohio State University,  
M.S.; Case Western Reserve University Ph.D.

Tichy, Charles, Professor, Modern Languages and Cultures, Arizona State University, B.A., M.A.; Ohio State  
University, M.A.; University of Pittsburgh, Ph.D.

Tomasic, Diane, Associate Professor, Nursing, Point Park College, B.S.; Duquesne University, M.S.Ed.; University of  
Pittsburgh, M.N.; West Virginia University, Ed.D.

Tuten, Eric, Assistant Professor, History, Brigham Young University, B.A.; University of Utah, M.A., Ph.D.

## U

Utsch, Glenn, Assistant Professor, Music, West Chester University, B.M.; Manhattan School of Music, M.M., Teachers  
College, Columbia University, M.M.Ed., Ed.D.

## V

Valencia, Jesus M., Associate Professor, School of Business, University of Pittsburgh, B.A., M.A., Ph.D.

Valentine, David W. , Professor, Computer Science, Clarkson University, B.S.; Trinity Evangelical Divinity School,  
M.D.; State University New York-Buffalo, Ph.D.



Valera, Manuel, Assistant Professor, Physics and Pre-Engineering, Universidad Simon Boliver, Venezuela, B.S.; University of Cincinnati, M.S., Ph.D.

Vallin, Robert W., Professor, Mathematics, University of Maryland, B.S.; North Carolina State University, M.S., Ph.D.

Verba, Steven, Assistant Professor, Exercise and Rehabilitative Sciences, Slippery Rock University, B.S.; University of Pittsburgh, M.S.

Veronie, Linda., Assistant Professor, Psychology, University of Toledo, B.A.; Oklahoma City University, M.A.; Kent State University, Ph.D.

Vetere, Mary T., Associate Professor, Elementary Education/Early Childhood, Indiana University of Pennsylvania, B.S.; Ball State University, M.A., Indiana University of Pennsylvania, Ed.D

Viola, Paulette, Professor, Parks and Recreation, Edinboro University, B.S.Ed.; Slippery Rock University, M.S.Ed.; University of Pittsburgh, Ph.D.

Vogel, Matthew, Assistant Professor, Special Education, St. Bonaventure University, B.S.; Slippery Rock University, M.A.; Robert Morris University, Ph.D.

## W

Wajda, Theresa A., Professor, School of Business, University of Pittsburgh, B.A.; M.Ed.; Ph.D.

Walker, Christophas H., Assistant Professor, Public Health and Social Work, University of Pittsburgh, B.A.; M.Ed.; Ph.D.

Walsh, M. Christine, Assistant Professor, Elementary Education/Early Childhood, University of Pittsburgh, B.A.; M.Ed.; Ph.D.

Walters, Amy R., Assistant Professor, Communication, West Virginia University, B.A.; M.S.; University of Pittsburgh, Ph.D.

Wang, Jialing, Associate Professor, Geography, Geology and the Environment, Nanjing University (China), B.S., M.M.S.; Florida State University, Ph.D.

Webb, Fred, Associate Professor, School of Business, Ball State University, B.S.; Massachusetts Institute Of Technology, M.S.; Duquesne University, Ed.D.

Wells, Deborah, Professor, Elementary Education/Early Childhood, Auburn University, B.A., B.S., M.Ed.; Arizona State University, Ph.D.

Werner, Judy A., Associate Professor, Elementary Education/Early Childhood, Michigan State University, B.A.; Queens College, M.Ed.; University of South Carolina, Ph.D.

Westman, Barbara, Assistant Professor, Art, Schola Posnaniensis, School of Applied Art, B.A.; Academy of Fine Arts-Poland, M.F.A.

White, Carlis C., Assistant Professor, History, Johnson Bible College, B.A.; Southern Baptist Theological Seminary, M.D.; University of Illinois, M.A., Ph.D.

White, Frederick, Associate Professor, English, Azusa Pacific University, B.A., M.A., University of California at Los Angeles, Ph.D.

Whitfield, Deborah L., Professor, Computer Science, Youngstown State University, B.S.; University of Pittsburgh, M.S., Ph.D.

Whitfield-Williams, Mary, Assistant Professor, Counseling and Development, College of William and Mary, B.A.; North Carolina Central University, M.A.; College of William and Mary, Ph.D.

Willford, Jennifer, Assistant Professor, Psychology, Muskingum College, B.S.; University of Kentucky, M.S.; University of Kentucky, Ph.D.

Williams, A. Lee, Professor, Elementary Education/Early Childhood, Grove City College, B.A.; Slippery Rock University, M.Ed.; Kent State University, Ph.D.

Williams, Adelle M., Professor, Counseling and Development, University of Pittsburgh, B.A., M.Ed., Ph.D.

Williams, Jacqueline., Associate Professor, Exercise and Rehabilitative Sciences, Minnesota State University, B.S.; Central Washington University, M.S.; University of Idaho, Ph.D.

Wilson, Bradley E., Professor, Philosophy, Purdue University, B.A.; University of North Carolina at Chapel Hill, M.A., Ph.D.

Winters, Carena, Assistant Professor, Exercise and Rehabilitative Sciences, Eastern Kentucky University, B.S.; University of Pittsburgh, M.S., M.P.H., Ph.D.

## **Y**

Yamamoto, Junko, Assistant Professor, Secondary Education/Foundations of Education, University of Japan, B.A.; University of Pittsburgh, M.P.A.; Duquesne University, Ed.D.

Yensick, Marilyn, Assistant Professor, Elementary Education/Early Childhood, Youngstown State University, B.S., M.A., Kent State University, Ph.D.

Yim Schanz, Youngyol, Associate Professor, Criminology and Criminal Justice, Dankook University (Korea), B.S.; Wichita State University, M.A.; Indiana University of Pennsylvania, Ph.D.

## **Z**

Zane, Linda, Assistant Professor, Elementary Education/Early Childhood, University of Pittsburgh, B.S., M.A.; Duquesne University, Ed.D.

Zapfen, Donald, Professor, Chemistry, University of Santa Clara, B.S.; University of California at Santa Barbara, Ph.D.

Zeiger, William, Associate Professor, English, Oberlin College, A.B.; Northern Illinois, M.A.; University of Southern California, Ph.D.

Zeltner, Mark, Associate Professor, Communication, Northwest Missouri State University, B.S.; University of Tulsa, M.A.; University of Missouri at Columbia, Ph.D.

Zema, M. Scott, Assistant Professor, Exercise and Rehabilitative Sciences, Slippery Rock University, B.S., M. Ed.

Zhou, Hongbo, Associate Professor, Computer Science, Xi'an Jiaotong University (China), B.S., M.S.; Michigan State University, Ph.D.

Zieg, Michael J., Associate Professor, Geography, Geology and the Environment, Michigan State University, B.S.;  
John Hopkins University, M.A., Ph.D.

Zillifro, Traci, Associate Professor, Physical Education, Kent State University, B.S.; Edinboro State University, M.A.;  
Pennsylvania State University, Ph.D.

Zirpoli, Susan R., Assistant Professor, Chemistry, Franklin and Marshall College, B.A.; Pennsylvania State University,  
Ph.D.

Zulauf, Lori S., Assistant Professor, Professional Studies, Grove City College, B.A.; Youngstown State University,  
M.B.A.

[TOP](#)

## **Faculty Emeriti**

Dr. Mary Adair, Special Education

Dr. Robert N. Aebersold, President

Dr. Henry Anna, Political Science

Dr. Richard Altenbaugh, Secondary Education

Dr. Patricia Archibald, Biology

Dr. David M. Auxter, Physical Education

Mr. Andrew Back, Curriculum & Instruction

Mr. Stephen J. Banjak, Physical Education

Dr. Mark Banks, Communication

Dr. William L. Barnett, Communication

Dr. Paul A. Baroutsis, Economics & Finance

Dr. Robert A. Berner, Special Education

Dr. Paul F. Black, Secondary Education

Dr. Barbara B. Blackstone, Communication

Dr. Kathleen Boykin, Modern Languages

Dr. Roberta Braden, Physical Education

Dr. Frances Brannon, Physical Education

Mr. Charles L. Brochetti, Counseling & Ed Psychology

Ms. Leah Brown, Library

Dr. Bernice Brown, Elementary Education

Mr. Glen W. Brunken, Art

Mr. Paul Bruno, Physical Education

Dr. Beverly J. Buchert, Geog, Geol, & the Environment

Dr. Edwin Buchert, Elementary Education

Dr. John Burtch, Elementary Education

Dr. Kent O. Bushnell, Environmental Geosciences

Dr. Hannah K. Case, Modern Languages

Dr. William F. Chapman, Geog, Geol, & the Environment

Dr. Craig C. Chase, Parks and Recreation/EE

Dr. S. Andrew Chen, Counseling & Ed Psychology

Dr. Gerald Chesin, Curriculum & Instruction

Dr. Larry R. Cobb, Political Science

Mr. Louis Como, Library

Mr. J. Robert Crayne, Art

Mr. Robert Davis, Geog, Geol, & the Environment

Ms. Cynthia Dillon, Asst. to the Provost, Academic Affairs

Mr. Robert DiSpirito, Parks and Recreation/EE

Dr. Diana Y. Dreyer, English

Mr. William Elliott, Administrative Affairs

Mr. Robert J. Farls, Admin Supervision/Field Services

Dr. Hans Fellner, Physics

Ms. Susan Ferrandiz, Library

Dr. George T. Force, Political Science

Mr. Richard J. Freeman, Secondary Education

Dr. Bernard Freyberg, Philosophy

Dr. Thomas W. Gaither, Biology

Dr. Stephen Glinsky, Jr., Modern Languages

Dr. Anita G. Gorman, English

Dr. Anne M. Griffiths, Dean

Dr. Andreas Grotewold, Geog, Geol, & the Environment

Ms. Jean Hamilton, Physical Education

Dr. Barry R. Hammond, Political Science

Dr. Kenneth Harris, Theatre

Mr. Francis J. Hensler, Info and Admin Tech Services

Dr. William Herman, Physical Education

Dr. C. Jay Hertzog, Dean

Dr. John A. Hicks, Elementary Education

Dr. George J. Highland, Chemistry & Physics

Dr. Robert Hinds, Geog, Geol, & the Environment

Dr. Frank M. Hoffman, Biology

Dr. William Hotchkiss, Physical Education

Dr. James C. Hughes, Geog, Geol, & the Environment

Ms. Jan Hudak, Physical Education

Dr. Richard Hunkler, Computer Science

Dr. Patsy Ann Johnson, Secondary Education

Mr. Stanley Johnson, Parks and Recreation/EE

Dr. Thomas Kandl, Elementary Education

Dr. Brian J. Kearney, Physics

Dr. Bradley F. Keith, Physical Education

Dr. Donald Kelly, History

Mr. Stanley Kendziorski, Allied Health

Dr. Theodore L. Kneupper, Philosophy

Dr. Patricia M. Koehler, Special Education

Dr. Edward A. Kopper, English

Ms. Akiko Kotani, Art

Dr. Parameswar Krishnakumar, Business

Dr. John Landrum, Counseling & Ed Psychology

Dr. Allan W. Larsen, Philosophy

Dr. Henry Lenz, Secondary Education

Ms. Ruth Leo, Nursing

Dr. Ann Liedel-Rice, Elementary Education

Mr. Fred J. Livingston, Special Education

Dr. Lawrence F. Lowing, Jr., Allied Health

Mr. Francis A. Manfredi, Special Education

Mr. Joseph Marks, Developmental Programs

Dr. Frank V. Mastrianna, Dean

Mr. Richard D. Maxwell, Physical Education

Dr. Clair W. McClure, Mathematics

Dr. Mary Agnes McKay, Elementary Education

Dr. Joanne L. McKeag, Physical Education

Dr. Alison McNeal, English

Dr. Richard Medve, Biology

Dr. Donald F. Megnin, Political Science

Dr. James Mennell, History

Dr. Kenneth E. Michel, Biology

Mr. Carl E. Miller, Info and Admin Tech Services

Dr. Catherine Morsink, Dean

Dr. Richard K. Myers, Special Education

Dr. Karin R. Myers-Tillotson, Secondary Education

Mr. James C. Myford, Art

Dr. Ramona Nelson, Nursing

Dr. Diana F. Ney, Nursing

Dr. John A. Nichols, History

Mr. Joseph Normand, Communication

Dr. Chester O'Bannon, Music

Mr. Rod Oberlin, Physical Education

Dr. Jerome O'Malley, English

Dr. William Oman, Philosophy

Dr. Monica F. Ondrusko, Special Education

Dr. Nicholas E. Papanikolaou, Chemistry & Physics

Dr. Leona C. Parascenzo, Nursing

Dr. Mary Alice Paul, Elementary Education

Dr. Gary S. Pechar, Exercise & Rehab Sciences

Dr. Joyce Penrose, Nursing

Dr. William Polk, Elementary Education

Dr. Charles Mack, Porter Counseling & Ed Psychology

Mr. Fred Powell, Physical Education

Dr. Walter V. Powell, Political Science

Dr. W. Garry Quast, Elementary Education

Mr. Louis R. Razzano, Associate Vice President

Dr. Herb. F. Reinhard, Jr., President

Dr. Charles Rice, Elementary Education

Dr. Joseph H. Riggs, Communication

Dr. Melinda Ristvey, Modern Languages

Dr. Carolyn C. Rizza, Soc, Anthro, Social Work

Dr. Paul F. Rizza, Geog, Geol, & the Environment

Mr. F. Duane Rose, History

Dr. Larry R. Rotge, History

Ms. Lucy Sack, Dance

Dr. John A. Sample, Psychology

Dr. Robert O. Sattler, Special Education

Dr. W. G. Sayre, Chemistry & Physics

Ms. Claire Schmieler, Health Center

Ms. Jane Scott-Cleary, History

Dr. Clara C. Settemire, History

Dr. Charles Shaw, Mathematics

Dr. J. William Shiner, Parks and Recreation/EE

Mr. Robert Shrader, Physical Education

Dr. Charles H. Shultz, Geog, Geol, & the Environment

Dr. Edward Sims, Music

Dr. Esther R. Skirboll, Soc, Anthro, Social Work

Dr. R. Robert Stackman, History

Dr. Donald T. Stauffer, Special Education

Mr. Terry Steele, Music

Ms. Laurie A. Stepanian, Theatre

Dr. Michael L. Stowe, Soc, Anthro, Social Work

Dr. Kathleen Strickland, Dean, College of Education

Dr. Constantine Stroumbakis, Secondary Education

Dr. William Taylor, Soc, Anthro, Social Work

Dr. David C. Taylor, Chemistry & Physics

Dr. Rhoda Taylor, Biology

Mr. Martin Thompson, Curriculum & Instruction

Ms. Melba Tomeo, Library

Dr. Frank Treccase, Modern Languages

Dr. Genevieve Tvrđik, Biology

Dr. Lawrence Upton, Counseling & Ed Psychology

Mr. Hubert Voltz, Mathematics

Dr. B. Wayne Walker, Dean

Dr. Raymond V. Wallace, Theatre

Dr. Frances H. Walsh, Elementary Education

Dr. Albert N. Ward, Jr., Environmental Geosciences

Dr. Robert J. Watson, Student Life



Dr. Marie Wheaton, Physical Education

Dr. Gene Wilhelm, Soc, Anthro, Social Work

Dr. Patricia A. Zimmerman, Physical Education

Dr. Charles A. Zuzak, Dean

## Financial Aid

The Office of Financial Aid is responsible for the coordination of sources of financial assistance for undergraduate and graduate students at Slippery Rock University. The majority of financial aid offered through the Office of Financial Aid is based on the overall financial need of applicants. State, federal and institutional financial aid sources are coordinated through this office. The Office of Financial Aid also provides information about scholarship opportunities. A detailed listing of aid programs is available at The Office of Financial Aid.

Click a link to be taken to the entry below.

- How Do I Apply For Financial Aid?
  - Financial Aid Programs
  - How is Eligibility Determined?
  - What Can Financial Aid Cover?
  - What Is An Expected Family Contribution (EFC)?
  - What Is My Eligibility For Financial Aid?
  - How Do I Receive Financial Aid Funds?
- Academic Progress for Financial Aid
  - Policy on the Return of Title IV Aid
- Financial Aid for the Summer Term
- Study Abroad Programs
- Statement of Rights and Responsibilities
  - Rights
  - Responsibilities
  - Additional Eligibility Criteria
- General Comments
- Veterans Affairs

## How Do I Apply For Financial Aid?

The Free Application for Federal Student Aid (FAFSA) must be completed in order to apply for financial aid available for attendance at Slippery Rock University in addition to institutional scholarships that are based in part on financial need. Students are able to complete the FAFSA beginning January 1 of the year preceding the next academic year. It is recommended that the application be completed before May 1. The federal school code for Slippery Rock University is 003327; this code is required on the FAFSA.

Students interested in receiving assistance from federal educational loan programs must complete entrance loan counseling and a master promissory note.

# Financial Aid Programs

Financial aid at Slippery Rock University includes grant, scholarship, loan, and employment programs. A detailed list of scholarship opportunities for students is found in the "University Scholarships" section of this catalog and also on the SRU Financial Aid Office webpage. In addition to the brief descriptions of federal financial aid programs below; additional details can be found at [www.studentaid.ed.gov](http://www.studentaid.ed.gov) and [www.sru.edu/finaid](http://www.sru.edu/finaid).

**Federal Pell Grant** - Pell Grants are federal funds available to undergraduates with exceptional financial need; the amount of the grant is based on a student's enrollment, cost and financial need. Eligibility is determined based on the results of the Free Application for Federal Student Aid.

**Federal Supplemental Educational Opportunity Grant (FSEOG)** - FSEOG funds are grant funds available to undergraduate students with a high degree of financial need. Students may be eligible for this grant if they already qualify for the Federal Pell Grant.

**The Teacher Education Assistance for College and Higher Education (TEACH) Grant** - These grants are designated for academically-eligible students enrolled in specific bachelor's and master's degree programs in SRU's College of Education who intend to teach in a public or private elementary or secondary school that serves students from low-income families. This program requires a service obligation.

**Pennsylvania State Grant** - The Pennsylvania Higher Education Assistance Agency (PHEAA) provides grant assistance to eligible Pennsylvania residents. PHEAA Grant funds are awarded to undergraduate students on the basis of financial need. Additional details are available at [www.pheaa.org](http://www.pheaa.org)

**PHEAA-Administered Scholarships** - PHEAA makes available a number of scholarships to Pennsylvania residents. Details about such scholarships are available at [www.pheaa.org](http://www.pheaa.org)

**Other State Grants** - Several states allow their students to use state grant funds to attend colleges outside of their home states. Out-of-state students should contact their state grant agency in their home state for more information on eligibility guidelines.

**Student Employment** - Part-time student employment at SRU is available through a variety of funding sources. Students employed on campus are paid on a bi-weekly basis and are paid at least minimum wage. Job opportunities are located throughout the campus. Available positions are publicized through the Office of Career Education and Development at [www.sru.edu/workstudy](http://www.sru.edu/workstudy).

- Federal Work Study (FWS) is based on financial need and may be available to eligible students.
- Some positions are available through community service departments on campus including the SGA Child Care Center, the Institute for Community Service and Learning, the Macoskey Center, the Aebersold Recreation Center and the Women's Center.
- State Student Employment is available to students who do not demonstrate financial need as determined by the FAFSA and is funded by institutional funds.

**Federal Perkins Loan** - This is a low interest (5%) loan that is offered by SRU through the use of federal funds. Typically, this loan is awarded to undergraduate students who demonstrate financial need; these do not require repayment of principal or interest while the student remains enrolled at least half-time.

**Federal Stafford Loan** - This is a long-term, low interest loan that students may elect to use to assist them with their educational expenses. The amount of loan and type of loan available is dependent upon the individual student's costs, resources, year in school, and financial need. A student may qualify for Subsidized or Unsubsidized Stafford Loans, or both.

- Subsidized loans are offered to students who demonstrate financial need; these do not require repayment of principal or interest while the student remains enrolled at least half-time.

- In contrast, unsubsidized loans require either the repayment of interest only (on a quarterly basis) or the capitalization of interest during periods of enrollment.
- The student officially enters repayment of an Unsubsidized or Subsidized Federal Stafford Loan following a grace period after graduation or cessation of at least half-time enrollment. Contact the Office of Financial Aid for further information regarding repayment of Federal Stafford Loans.

**Federal PLUS Loans** - The PLUS Loan is available to parents of dependent students and to graduate students. Borrowers may access funds up to the cost of education minus any other financial aid.

**SRU Scholarships** - Institutional scholarships are awarded based upon a variety of criteria. Detailed information about institutional scholarships can be found on the Scholarship webpage at [www.sru.edu/scholarships](http://www.sru.edu/scholarships).

**Private Sources of Funding** - The SRU Financial Aid Office encourages students to seek out assistance from private organizations and agencies. Links to private scholarship database searches can be found on the SRU Scholarship page. Information about non-federal private loans is available at [www.sru.edu/loans](http://www.sru.edu/loans).

TOP

## How is Eligibility Determined?

Students qualify for most financial aid based on their financial need. A student's financial need is based on a simple formula:

$$\begin{aligned} &\text{Cost of Attendance} \\ &\text{– } \underline{\text{Expected Family Contribution}} \\ &= \text{Financial Need} \end{aligned}$$

TOP

## What Can Financial Aid Cover?

The Office of Financial Aid calculates an average cost of attendance for each student based on their program of study and their in-state or out-of-state status. Typically, the cost of attendance consists of costs for tuition, fees, room, board, books, travel and other associated educational costs.

## What Is An Expected Family Contribution (EFC)?

The EFC is calculated through the completion of the Free Application for Federal Student Aid. This figure reflects the Federal estimate of what a family and/or student can afford to contribute toward a year of college. Students and families are able to calculate an estimated EFC through the FAFSA4caster available at [www.fafsa.ed.gov](http://www.fafsa.ed.gov)

TOP

## What Is My Eligibility For Financial Aid?

The level of financial need determines the amount of eligibility that a student has for financial aid. It is used by the Office of Financial Aid to determine eligibility for specific programs. An award letter listing eligibility for financial aid is sent to each student after the determination of financial need.

Students or families who experience hardship due to disability, death, decrease in income, loss of benefits, etc., should contact the Office of Financial Aid. A review of their eligibility for financial aid may be performed based on their change in status.

Financial aid applicants may contact the Office of Financial Aid for specific program eligibility criteria.

TOP

## **How Do I Receive Financial Aid Funds?**

The Office of Student Accounts is responsible for disbursing all financial aid with the exception of the Federal Work Study Program under which students are paid on a bi-weekly basis. A student's financial aid, excluding Federal Work Study, is applied directly to contracted university charges (tuition, fees, room and board). Any excess funds will be refunded to the student according to the refund policies set forth by the Office of Student Accounts.

## **Academic Progress for Financial Aid**

The Higher Education Act of 1965 as amended by Congress mandates institutions of higher education to establish minimum standards of "satisfactory progress" for students receiving Federal financial aid. The Satisfactory Academic Progress Policy is viewable on-line at [www.sru.edu/finaid](http://www.sru.edu/finaid).

## **Financial Aid for the Summer Term**

Students may be able to qualify for financial aid for the summer term dependent upon their enrollment status, eligibility for aid, and the availability of financial aid funds. Students are encouraged to contact the Office of Financial Aid in the early spring regarding application procedures for financial aid for the summer term.

## **Study Abroad Programs**

SRU students may be eligible for financial aid funds to attend a study abroad program that is approved by SRU. Financial aid eligibility for study abroad programs is reviewed by individual request. The terms and conditions of the study abroad program have a direct impact upon the student's eligibility for financial aid. Students interested in financial aid for a study abroad program should contact the Office of Financial Aid.

TOP

## **Policy on the Return of Title IV Aid**

The University is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60% of a payment period or term. The federal Title IV financial aid programs must be recalculated in these situations.

If a student leaves the institution prior to completing 60% of a payment period or term, the office of student accounts recalculates eligibility for Title IV funds. Recalculation is based on the percentage of earned aid using the Federal Return of Title IV funds formula found at [www.wru.edu/studentaccounts](http://www.wru.edu/studentaccounts).

# Statement of Rights and Responsibilities

## Rights

The student has the right to:

- Be considered for financial aid assistance; be notified of the financial aid decision; and if not awarded financial assistance, to be informed as to the reason for denial.
- Be informed of the financial aid programs available and the required application materials.

## Responsibilities

The student is responsible for:

- Submitting the appropriate application forms within published deadline dates.
- Using all refunds of financial aid funds for expenses related to the student's education.
- Following the requirements and repayment schedules of educational loan programs.
- Informing the Office of Financial Aid of all grants, scholarships, or other funds received for their educational costs from outside organizations.

## Additional Eligibility Criteria

In order to be considered for financial aid, student applicants must:

- Be a U.S. citizen or eligible non-citizen.
- Be registered with Selective Service (if required).
- Be working toward a degree or teacher certification at SRU.
- Not owe a refund on a federal grant or be in default on a federal educational loan.

## General Comments

- Aid programs require that the student make satisfactory academic progress as detailed on the financial aid webpage.
- The financial aid office should be contacted for instructions when a major change in the family's financial condition occurs such as death, disability, retirement, or loss of job.)
- Students and families are encouraged to contact the financial aid office at 724-738-2044 or via e-mail at [financial.aid@sru.edu](mailto:financial.aid@sru.edu) with any questions they have about the financial aid information provided in this catalog.
- The information provided in this section was accurate at the time of publication. Fees, regulations, eligibility requirements, etc. are subject to change.

## Veterans Affairs

The financial aid office coordinates all paperwork for veterans or dependents of veterans who are eligible for Department of Veterans Affairs educational benefits. Qualified individuals should apply at least eight weeks prior to the first day of classes. An original application for benefits and certified copy of DD214 (discharge paper), or VA form 2384 (Notice of Basic Eligibility), or copy of Kicker contract may be required. The Office of Financial Aid should be contacted for additional information regarding DVA educational benefits and financial aid. Information about military educational benefits is available at [www.sru.edu/veterans](http://www.sru.edu/veterans). This site also provides information about academic support services, admissions and various other departments and services.

TOP

## Tuition, Fees, & Financial Policies

**Note:** *The most current information on graduate tuition and fees may be found online at the Office of Student Accounts.*

By accepting admission to the Slippery Rock University, the student agrees to pay the fees and charges assessed by the university. Tuition, fees and other charges are subject to change at any time. Students cannot enroll in classes, receive transcripts of coursework taken while at the university, or graduate from the university unless all fees are paid. Past due account balances are submitted to the Attorney General's office for collection. If any account is submitted to a collection agency to assist in collecting the account, the student is responsible for any/all collection costs associated with this account. Payment of fees can be made in a variety of ways either in full or through installment payment plans (fee involved).

- Tuition Fees & Financial Policies

## Student Life

Each student is a person of dignity, worth and responsibility who has elected to attend the university for the purposes of attaining an education and to grow and mature through additional learning experiences outside of the classroom.

The goal of the student life staff is to assist in the total development of each student by providing appropriate, life-centered educational programs and services. Primary concerns of the staff focus on helping students to develop leadership skills, decision-making competencies, self-discipline, respect for others, skills of self-evaluation, and the learning and development of social responsibility and human relations skills.

Click on a link to be taken to the entry below.

- Academic Honor Societies
- Aebersold Student Recreation Center
  - Outdoor Adventures
- Athletic Programs
- Conference Services, Office of
- Counseling Center
- Dining Accommodations
- Fraternities and Sororities
- Health Services
- ID Cards
- Multicultural Development
- Leadership - Student
  - Center for Student Leadership
  - First Year Leader Scholar Program
- Musical Organizations
- Preschool Child Care Center
- Publications
- Radio and Television
- Residence Life
- Student Government Association
- Student Organizations
- Student Conflict Resolution Services
- Student Intervention Services
- Theatre Productions
- University Police
- University Program Board
- Robert M Smith Student Center
- Women's Center

- Off Campus Housing

- Library

### **Academic Honor Societies**

Blue Key Honor Society recognizes primarily juniors and seniors for scholarship, leadership and service to their campus and community. Students may be in any major course of study to be invited to join, but must have a 3.0 or higher GPA.

Delta Alpha Chi is an academic/professional organization dedicated to the support and enhancement of the Student Affairs in Higher Education Master's Degree program. Membership is open to graduate students in the Student Affairs in Higher Education program.

Gamma Sigma Alpha exists to recognize the academic achievement of fraternity and sorority members at Slippery Rock University. Members of social fraternities and sororities who are juniors or seniors with a 3.5 or higher GPA may become initiated members.

Golden Key is an internationally recognized academic honor society dedicated to excellence. The society's goals are to recognize and encourage scholastic achievement and excellence in all undergraduate fields of study, to unite faculty and administrators in developing and maintaining high standards of education, to provide economic assistance to outstanding members by means of both undergraduate and graduate scholarships and to promote scholastic achievement and voluntary service. Membership is by invitation to juniors and seniors (in all fields) who have achieved a minimum 3.40 GPA.

Lambda Epsilon Delta recognizes outstanding elementary education majors. Students are required to have a 3.000 overall GPA after completing 60 semester credits in order to be eligible for membership.

Lambda Pi Eta recognizes currently enrolled full-time students in good standing majoring in communications. Students are required to have completed 45 credits with a GPA of 3.000 and nine credits in communication courses with a 3.250 GPA.

Lambda Sigma honors sophomore students who have enriched campus life. The honorary is dedicated to the ideals of scholarship, leadership, fellowship, and service. Active members are chosen according to an election system approved by the national board and are initiated in the spring.

Mu Phi Epsilon is an international, professional music fraternity whose purpose is scholarship, musicianship and the promotion of friendship. The fraternity is open to music majors who have a minimum GPA of 2.500 with a minimum GPA of 3.000 in music subjects. Members serve the department by ushering, sponsoring concerts, and participating in community outreach programs.

Order of Omega recognizes students who have attained a high standard of leadership in InterGreek activities. It strives to bring together the most representative fraternity and sorority members with faculty, staff and alumni of the institution.

Omicron Delta Epsilon is the international honor society in economics and is a member of the Association of College Honor Societies. ODE promotes excellence in academic study by restriction of membership to upper division undergraduates who have a B average and at least 12 credit hours of economics with an average grade of at least a B. ODE also publishes *The American Economist*, a journal that accepts manuscripts from graduate and undergraduate students majoring in economics.

Phi Alpha Theta is dedicated to promotion of research, instruction, publication, and exchange of experiences among historians. Students maintaining high academic standards in history and general studies are eligible to become members. The RHO IOTA Slippery Rock Chapter has been selected best chapter in Division III for 1989-90 and 1990-91 school years.

Phi Epsilon Kappa recognizes outstanding health and physical education majors. Fraternity objectives are to elevate the standards, ideals, and ethics of those engaged in the teaching of physical education. Membership requirements include a minimum overall GPA of 2.750 and a 3.000 GPA in all major courses.

Phi Kappa Phi, the nation's oldest and most selective all-discipline collegiate honor society, extended an invitation of membership to Slippery Rock University following a yearlong evaluation. SRU initiated a chapter in the fall of 2004. Founded in 1897, the Phi Kappa Phi society stresses academic excellence and strength of character. Membership in the society is by invitation. Invitations are extended to the top 7.5% of juniors and the top 10% of seniors, as well as outstanding members of the university's faculty, staff and administration.

Phi Sigma Pi is a national, coeducational honor society for all majors. Slippery rock University's Mu chapter was established in 1930, on the three ideals of scholarship, leadership, and fellowship. With this tripod the society strives to make all three ideals dynamic in the lives of its members. Consideration for membership requires the maintenance of a 3.000 GPA, and completion of twelve credits.

Phi Sigma Tau, the Pennsylvania Upsilon chapter of the philosophy honorary was established at Slippery Rock University in February 1984. The aims are expressed in the Greek motto "Philounton Sophian Time," meaning the "honor of those who love wisdom." The goals are to honor academic excellence and philosophical concern. Any student with a cumulative average of 3.000 in at least nine credits of philosophy courses and an overall cumulative average of 3.000 or better is eligible for membership.

Pi Delta Phi aims to recognize excellence in French studies. Members communicate French language and culture to others by tutoring and sponsoring French cultural presentations. To be eligible to join, students must have completed one French course at the 300 level, have a B average in all French courses taken and a 2.900 overall GPA.

Psi Chi aims to provide academic prestige to members by high standards for eligibility, to offer a congenial climate for professional growth, and to make active attempts at nourishing and stimulating that growth. Basis for membership: (1) completion of twelve or more credits in psychology; (2) registration for major or minor standing in psychology or related program; (3) high standards in psychology or related program; (4) good academic standing; and (5) three-fourths vote of approval for membership at a regular meeting of the chapter.

Psi Chi (Graduate Division) Graduate students are eligible to join Psi Chi after completing 18 semester credits in the counseling program, achieving degree candidacy, and obtaining a GPA of not less than 3.500.

Rho Phi Lambda honors students who have made outstanding contributions to the field of parks and recreation. Initiates must have completed 45 credits with a 3.000 GPA and nine credits of parks and recreation courses with a 3.200 GPA.

Sigma Delta Pi honors those who seek excellence in the study of Spanish language and literature. To become an active member, a student must have completed at least two Spanish courses at the 300 level and have a 3.000 GPA in Spanish and a 2.750 GPA overall.

Sigma Gamma Epsilon is an honorary scientific society devoted to the earth sciences. Delta Tau Chapter holds regular meetings, sponsors field trips, lectures and community service in the earth sciences.

Sigma Rho Delta, the dance honorary, was founded in 1967 and established at SRU in 1998. The goals are to offer service to the department, university, and community; promote unity within the department and between departments; and to further dance and art awareness.

Sigma Sigma Kappa was established in 1981 to foster academic excellence in sociology, anthropology, and social work and to encourage community service. To be eligible for membership, students must have completed nine hours in sociology, anthropology, or social work courses and have achieved a 3.000 GPA. In addition, students must complete ten hours of volunteer service in the community.

### **Aebersold Student Recreation Center**

The Office of Campus Recreation is responsible for the programming and operation of the Aebersold Student Recreation center (nicknamed the ARC), Intramural Recreational Sports Complex, Ski Lodge, Campground, ARC Outfitter and ropes course. The programs and facility have been designed to promote positive physical, mental and spiritual health.

The ARC is an 82,000 square foot, state of the art recreation facility that includes an aquatic center, 45 foot climbing



wall, indoor track, five multipurpose sport courts, Rock Pride Mezzanine (RPM) multipurpose room and a lounge area complete with a computer, vending machines and TV. The ARC's Russell Wright Fitness Center (RWFC) is equipped with cardiovascular, free weight and selectorized equipment as well as a fitness lab.

Campus Recreation offers a variety of lifetime sports and fitness activities that provide exciting opportunities to "Rock'n Recreate." Within each of the program areas there are Perk Programs which are provided free of charge to SRU students and ARC card holders and Pay to Play Programs requiring a program fee. Program areas consist of:

**Aquatics:** A variety of Perk and Pay to Play Programs offer education and fun activities. Primary programs offered include swim instructions, aquatic fun nights, aquacise, arthritic stretch and water polo.

**Climbing Wall Programs:** Introductory and advanced climbing clinics are offered as well as intramural and extramural bouldering competitions.

**Cycle Aerobics:** Students and ARC Members are invited to bring their bikes to the ARC RPM room where they can enjoy cycling year round. Bikes are hooked up to a cat-eye system and participants follow a videotape for a fun and enjoyable workout at your own pace in a group setting. This is a seasonal program.

**Group Exercise:** Throughout the academic year, these classes are conducted by nationally certified instructors. Classes include Zumba, Step, Boot Camp and more.

**Informal Recreation:** Opportunities for pick up games of basketball, volleyball, soccer, deck hockey or badminton as well as lap swimming, running/walking on the indoor track, fitness workouts or scaling the ROCK wall offer unstructured recreation at one's own convenience and leisure.

**Intramural Sports:** Team, individual and dual Intramural Sport leagues are offered throughout the academic year. Participants organize their own teams and compete for the coveted Intramural Championship Mugs. There are no prerequisites for experience; so all skill levels are encouraged to participate. In addition, intramural sports participation affords a fine opportunity to develop the essential qualities of leadership, cooperation, self-reliance, and sense of fair play and to form warm friendships that will endure throughout the years. Each and every SRU student is invited to participate in as many activities as he/she desires.

**Kayak Roll Clinics:** Offered throughout the academic year, in the Aquatic Center.

**Outdoor Adventures:** This program is designed to provide outdoor recreation services and educational experiences to the Slippery Rock University campus and community. The Outdoor Program trips and clinics offer opportunities to increase outdoor recreation skills, leadership development and environmental awareness.

**Safety Certifications:** Certification programs are offered throughout the year. Earn a certificate for life guarding, CPR, first aid or Water Safety Instruction (WSI) and increase your employment opportunities and earning power!

**RWFC Programs:** A number of programs aimed at preparing and enhancing participant's use of the fitness center. Included in these offerings are fitness assessments, equipment orientations, personal training, cross training classes, Rock personal training and Wright personal training.

**Sport Clubs:** These clubs provide opportunities for students with similar interests to participate in various sport and recreational activities. Sport Clubs bridge the gap between intramural and intercollegiate athletics by providing competition at specialized levels, participation in tournaments and opportunities to practice. New clubs can follow the procedure to become a recognized Slippery Rock University organization registering with the Center for Student Leadership, located in the Student Center.

## **Outdoor Adventures**

The outdoor adventures office is located in the Aebersold Recreation Center. Outdoor adventures sponsors a variety of outdoor programs throughout the year including, rock climbing, rappelling, canoeing, white water rafting, camping and mountain biking. Also available is the rental of outdoor equipment, such as cross country skis, tents, and backpacking equipment, all at affordable prices. Programs and services are open to students, faculty and staff of SRU. For additional information call 724-738-2620 or 724-738-2883.

### **Athletic Programs**

Always a strength at Slippery Rock University, intercollegiate athletics include a varied array of sports and make an important and meaningful contribution to the total educational objectives of the university. The strength of the SRU intercollegiate athletic program is its academic accountability, as well as its desire for excellence in all 17 of the university's varsity teams. The list of competitive, intercollegiate teams for women includes cross country, tennis, volleyball, soccer, and field hockey in the fall; basketball and indoor track in the winter; lacrosse, softball and track & field in the spring. The men's sports include football, soccer, and cross country in the fall; basketball and indoor track in the winter; and baseball and track & field in the spring. Slippery Rock University is a member of the Pennsylvania State Athletic Conference (PSAC) and the National Collegiate Athletic Association (NCAA), Division II.

## **Office of Conference Services**

The Office of Conference Services, OCS, oversees summer camps and conferences. Additionally, it handles all the academic building reservations for on campus groups as well as external rentals of academic buildings.

### **Counseling Center**

**724-738-2034**

Counseling is a collaborative learning experience between the counselor and the student. It encourages students to utilize the processes of self-exploration and problem-solving to identify their strengths and challenges, prioritize challenges, and to set realistic goals. Through the process of counseling, students may increase their knowledge and understanding of themselves, their relationships with others, and with their environment. Psychologists, professional counselors, and interns are available to speak confidentially in the Student Counseling Center, located in Rhoads Hall. Emergency services are available by contacting either the McLachlan Student Health Center (ext. 2052) or University Police (ext. 3333).

### **Dining Accommodations**

The dining program at Slippery Rock University offers a variety of services throughout the campus for students and their guests. Food service is available somewhere on campus from 7:00 a.m. to 12:00 midnight (Sunday through Thursday) and 8:00 a.m. to 9:30 p.m. (Friday and Saturday).

**Weisenfluh Hall**, located across from North Hall parking lot, features The Restaurants at Weisenfluh, developed to offer the campus community and guests an innovative and international dining experience. The four restaurant concepts offer Mediterranean and Pan-Asian cuisine, signature burgers, fusion wraps, and healthier fast-food options. A coffee shop features a variety of pastries, specialty coffee drinks and smoothies. Dine in or purchase food to go. The facility provides lounge and table seating, wireless environment, student gathering spaces, and meeting rooms.

**Boozel Dining Hall**, located on the lower end of campus, provides a variety of menu options in a restaurant-style atmosphere. Food stations with open kitchens offer made-to-order items along with home-style and international entrees, vegetarian and healthy choice options, deli and grille sandwiches, pizza and pasta, soup/salad, and a variety of desserts and beverages. A food intolerance line provides specialty items for those customers with food allergies/intolerances. This all-you-care-to-eat facility also features Boozel Xpress a take-out option located in the lobby, special events, holiday celebrations, and monotony breakers.

**Robert M. Smith Student Center**, located on lower campus, houses the following food service operations:

- Starbucks - a full-service store featuring breakfast items, pastries, Starbucks full beverage line and merchandise.
- Rocky's - a food court offering pizza/pasta, wraps, chopped salads, hoagies, and grab-n-go items.
- Quaker Steak & Lube - featuring their signature wings, burgers and appetizers.

**T & B Naturally**, a coffee shop located in Bailey Library, features organic and fair-trade products, pastries and grab-n-go items. A walk-up window provides quick service for those students hurrying through the quad.

**Flatz at Watson Hall**, located in the residential village, offers a variety of t-go food items and beverages.

There are a number of meal plan options available to Slippery Rock University students. Students residing in a university-managed residence hall sign a housing/food service contract. Once signed, these become binding contracts. The only reason for exemption from the meal contract will be suspension or withdrawal from the university. Meal contracts are optional for off-campus/commuter students.

### **Fraternities and Sororities**

Slippery Rock University's national fraternities and sororities provide opportunities for fun, friendship, and learning. The primary purposes of these organizations are 1) educational excellence, 2) campus and community service, 3) leadership development, and 4) developing a friendship network. The Greek system at Slippery Rock University has played a positive role on the campus since 1961. For more information about fraternities and sororities call The Center for Student Involvement & Leadership at 724-738-2719.

### **Recognized Student Greek Organizations are:**

#### **North American Interfraternity Conference Fraternities**

Pi Kappa Alpha

Alpha Sigma Phi

Pi Kappa Phi

Theta Xi

Sigma Tau Gamma

Kappa Sigma

Kappa Delta Rho (colony)

#### **National Panhellenic Conference Sororities**

Alpha Omicron Pi

Alpha Sigma Tau

Alpha Xi Delta

Delta Zeta

Phi Sigma Sigma

#### **National Pan-Hellenic Council Fraternities and Sororities**

Alpha Kappa Alpha Sorority, Inc.

Phi Beta Sigma Fraternity, Inc.

Zeta Phi Beta Sorority, Inc.

Omega Psi Phi Fraternity, Inc.

Sigma Sigma Sigma

### **Health Services**

Located along Campus Drive in Rhoads Hall, the McLachlan Student Health Services supports the university's mission by enhancing the educational process by providing quality health care and promoting an optimal level of health and wellness among the student body. A cost-effective, comprehensive, and holistic approach to health care is provided in a confidential setting. Health care is provided by certified registered nurse practitioners in collaboration with a licensed physician. The health center is staffed by registered nurses, 7 days/week, 24 hours/day during the academic year (except scheduled break periods). Van transportation is provided as available.

The facility includes an outpatient clinic, inpatient facilities, a health promotion department with educational resources, and a cold self care center. The student health fee covers routine care, which may include referral to the staff physician, medication, flu vaccine, in-patient care, educational material and the self-care center. The student is responsible for all additional medical expenses that may be required, such as lab tests, x-rays, referral to specialists or dentists, hospitalization and non-formulary medications. Specific questions can be addressed by calling 724-738-2052.

### **Medical Visit Verification**

Student Health Services (SHS) will issue a Medical Visit Verification form to students who request written documentation of SHS utilization. The verification form is designed to provide the date, time and duration of treatment. It is the student's responsibility to forward the Medical Visit Verification form to their professor/employer.

Absence policies are determined by the individual professors. It is the student's responsibility to be aware of these and do their part to meet the class requirements. Student Health Services does not have the authority to excuse students from class attendance.

### **Health Insurance**

All students are encouraged to be covered by health and accident insurance. While it is not mandatory to carry insurance, it is advisable. (*Note: International students are required to carry health insurance and must make acceptable arrangements with the Office of International Services.*) Students may already have benefits through their family plan, an independent source, or elect to purchase student accident and sickness insurance made available through the University.

Students will receive a mailing regarding the purchase of accident and sickness insurance, or information can be obtained by visiting the Student Health Center. Coverage periods are available on an annual basis and per semester.

Insurance information should be included on the Health History form and submitted to Student Health Services as part of the student's record.

### **HOPE Peer Education Program (Healthy Outreach through Peer Education)**

The HOPE program is one health promotion method used by Student Health Services to educate the student body on issues related to student health. Students are trained to provide educational programs for fellow students on issues such as dangerous alcohol consumption, rape, stress management, nutrition, flu illness prevention, safer sex, sexually transmitted infections, and leading a healthy lifestyle. Students interested in becoming a peer educator should contact the Coordinator for Health Promotion at 724-738-4206.

### **Protection Connection**

Developed in 1998 in response to student suggestions, the Protection Connection offers a variety of safer sex supplies to the student population. The purpose of this service is to encourage sexually active students to realize the importance of the use of barrier protection to reduce their risk of contracting a sexually transmitted infection. Supplies are available to students at cost. The Protection Connection is staffed by HOPE Peer Educators, trained students who are knowledgeable about sexually transmitted infections and risk reduction. The Protection Connection is located in the

Student Health Center. Hours vary by semester. Students who have questions or are interested in purchasing safer sex supplies can contact the Protection Connection at 724-738-4888.

### **ID Cards**

The SRU One Card is your official Slippery Rock University photo identification card and more! It offers you a convenient, easy, and safe way to make purchases and utilize campus services. The SRU One Card is your meal card; library card and activity card all rolled into one. For those students living in a residence hall, it provides access to your building. Money deposited in a Rock Dollars account (pre-paid debit account) is accessible with your ID card. When a debit account is activated, the SRU One Card works similar to a checking account in that the funds deposited into your account are debited each time you make a purchase. Rock Dollars may be used to purchase items/services in a number of locations throughout campus; SGA Bookstore, dining facilities, selected vending machines, residence hall laundry machines, selected public-access copiers, ticket purchases, and parking fees/fines. The ID card is also used as identification for cashing checks at the SGA Bookstore or in town and to withdraw materials from the library.

### **Multicultural Development**

The Office of Multicultural Development serves as the impetus for positive educational and holistic development of students from all cultures. The primary focus of the office is to advocate for and support the academic and social development and retention of underrepresented students. It encourages inclusivity and respect to issues of age, creed, ability, ethnic heritage, gender identity, race, religion, sexual orientation, and socioeconomic status.

### **Leadership - Student**

## **Center for Student Involvement & Leadership**

The Center for Student Involvement & Leadership, located in the Student Center, serves as a resource to students who want to get involved in campus life and who wish to develop and enhance their leadership skills. Their mission is to create valuable developmental and educational opportunities through activities, programs, student organizations, special events, services, and leadership training. The CSIL staff empowers students to be leaders that affect positive change on the campus and in their communities. The Center offers a resource library; a variety of student organization services; leadership workshops, community service opportunities, alternative spring break trips, seminars, and conferences; co-curricular experience transcripts; and information about campus-wide leadership involvement opportunities. The Center provides advisement and support for the Student Government Association, Green and White Society, and the University Program Board; fraternities, sororities, and the Greek governance councils; the First Year Leader Scholar Program; Student Ambassadors; and all student organizations and advisors. For more information regarding the Center for Student Involvement & Leadership call 724-738-2092.

[TOP](#)

## **First Year Leader Scholar Program**

The First Year Leader Scholar Program (FLSP) is an opportunity for first year students to jump start their involvement in student organizations by providing a series of seminars, and experiences that improve the participants' leadership skills and increase their visibility as emerging student-leaders on campus. Activities are structured to be interesting and fun. Applications are accepted from first-year students each September. Successful applicants begin the program in October and continue with program activities through April of their first academic year.

[TOP](#)

## **Musical Organizations**

In conjunction with the regularly scheduled student and faculty recitals, the university maintains the following well-developed musical organizations, which contribute to the wealth of fine music on the campus:

**University Choir.** Some 60 to 70 men and women, chosen by audition, study and perform the great choral literature from the Renaissance to the present. Concerts are presented on campus and on tours.

**Symphonic Choir.** This is a large ensemble, chosen by audition, which studies and performs the great choral literature.

**Chamber Singers.** This is a small ensemble of well-blended voices selected and trained for the performance of madrigals and other chamber vocal music.

**Marching Rocket Band.** The band performs during the half time at football games, both home and away, and for other special events. Much of its music is especially arranged.

**Concert Band.** The Concert Band members are carefully selected to provide a balanced instrumentation of the best players. Music written for the concert band is the main repertoire. Concerts are given by this group on campus and on tour.

**Jazz-Rock Ensemble.** The Slippery Rock University Jazz Ensemble performs jazz literature from all eras of jazz history including big band, bop, hard bop, fusion and contemporary. This ensemble often performs with guest artists of national and international stature, both on and off campus. Membership in this ensemble requires an audition. Four and one-half hours of rehearsal per week.

**Orchestra.** The Orchestra is a symphonic-sized ensemble comprised of strings, woodwinds, brass and percussion. All string players are eligible. Woodwind, brass and percussion players are to consult with the director prior to registering.

**Chamber String Ensemble.** The selected members of the Chamber String Ensemble study and perform chamber music written for strings.

**Brass Ensemble.** The Brass Ensemble studies and performs music for brass from all historic periods. Members are selected after auditions.

**Woodwind Ensemble.** The Woodwind Ensemble is a small, selected group of students who study and perform music for woodwind.

**Gospel Choir.** The Gospel Choir is made up of students who enjoy singing Gospel music. The group sings on campus and goes on tour.

### **Preschool Child Care Center**

The SRU/SGA Preschool and Child Care Center is a state-licensed, nationally accredited non-profit facility owned by Student Government Association, Inc. of Slippery Rock University. Services are available for children ages three to five of students, faculty, staff, and members of the Slippery Rock community. Children through age 12 are welcome for after-school care and for summer programs.

The Center is located at 007 McKay Education Building, and is open from 7:30 a.m. to 5:00 p.m., Monday through Friday. Service is provided year round.

Since the center is licensed by the Pennsylvania Department of Public Welfare and accredited by the National Association for the Education of Young Children, all staff members are required to meet state regulations regarding training and experience. In addition to a professional staff, the center provides a rich variety of learning experiences that promote the physical, social, and intellectual development of each child. The staff seeks to provide each child with a safe, secure, happy environment and to provide parents with the knowledge and security that their children are being given excellent care. The Center is the recipient of two grants, The PA Pre-K Counts and CCAMPIS, that provide free or reduced preschool to children based on financial need. The CCAMPIS grant is only available to the children of University enrolled students. To contact the Center personnel, please call 724-738-2102.

## **Publications**

SLAB (formerly Ginger Hill), which is one of the oldest and most distinguished American college literary journals, provides students with the experience of producing a high quality magazine. Participating undergraduates solicit contributions of fiction, poetry, art, and photography; select and edit works for publication; and help develop layout, design, and typography for printing. Issued annually, SLAB is funded by the Student Government Association.

Stone House Review is a journal of history and folklore featuring topics related to western Pennsylvania but also including articles dealing with other areas of historical interest. It is a student publication supported by university and student government funds. Phi Alpha Theta, the history honorary, and history faculty members assist in the selection of works and editing for publication. Contributors submit papers, book reviews, cartoons, artwork, or photographs; student and faculty editors set up the final proof copy and arrange for publication annually.

The Rocket named the "Most Outstanding College Newspaper" by the American Scholastic Press Association is the weekly campus newspaper. Its staff is made up of student reporters and editors who write on a wide variety of matters, which directly concern the students and the university community. The paper serves as an outlet for student opinion, through the editorial and letter-to-the-editor features. This publication provides an excellent experience for students whose career goals are in the areas of journalism, advertising, layout and design, and general newspaper management.

TOP

## Radio and Television

WSRU RADIO - 88.1 FM is a university radio station, which is a student-operated, network serving the campus community. Its format consists of popular contemporary artists, rock and roll, progressive rock, music and concert news, special features and local, national, and international news and sports. WSRU operates at 100 watts serving the Slippery Rock area throughout the academic year and broadcasts from 8 a.m. to midnight when classes are in session.

Television Production Studio - The all-digital Television Studio, a three-camera color facility, was recently relocated to 101 Vincent Science Hall. The newly remodeled facility has a control room, audio production, and the broadcast announcing classes use the facility as a component of the broadcast journalism curriculum. The offices of the student production organization, WSRU-TV, are also located at the facility. This student organization produces news and interview programs for distribution on the campus cable network.

### Residence Life

The philosophy of university residence halls at Slippery Rock University is educational and intended for student development that maintains that residence halls are not merely places to eat and sleep, but rather, communities in which students grow and develop. This development occurs in out-of-class learning experiences through participation in various activities assisting development at a personal, social and academic level. To achieve these objectives, the Residence Life staff offer opportunities to meet a wide variety of needs. Full-time professional staff members known as Assistant Directors of Residence Life supervise the on-campus residence halls. These Assistant Directors have a master's degree in college student personnel, counseling or related field. Additionally, each residence hall is staffed by a live-in Graduate in Residence. These students, who are enrolled in graduate programs including Student Affairs in Higher Education, or other related program at SRU, reside in the residence hall and assist with the supervision of the Community Assistant staff. These Graduates in Residence are available to handle emergency situations because of their hall residency. Each residence hall floor section has a community assistant available to provide educational and social programs to assist in the operation of the facility, offer support for the residents, and be available for emergency purposes. These staff members are full time students who have been selected for their skills and ability to be academic and personal role models.

There are eight university-owned residence halls and one apartment complex, housing approximately 2,800 men and women. Six of the eight residence halls offer suite style housing. These residence halls have opened within the past six years, and offer a variety of room styles. Each of the residential suite units provide in room bathroom facilities for the

residents of that unit. The remaining two halls are traditional style with double and triple rooms and communal restroom facilities. All SRU residence hall and apartments are air-conditioned.

Residence hall rooms and apartments are furnished with beds, chairs, desks, and window covers (shades). The beds are supplied with a mattress only. Students furnish their own blankets, pillows, towels, bedspreads, dresser covers, pillowcases, and sheets. Students may bring their own drapes and other accessories to personalize their living environment. Self-service laundries are available in each apartment building and residence hall. Lounges and recreation areas are available in each hall. A refrigerator and microwave are provided in each of the residential suite style units. Common kitchens equipped with microwaves and oven is available in each of the residence halls for students to cook snacks.

Residence Life is responsible for housing students who select to live in a university-owned residence hall. All freshmen, except those who live with their parents or legal guardians within a reasonable commuting distance, are required to live on campus. While the University provides housing for non-traditional students, freshmen over the age of 21 may request permission to live off campus. All such requests must be sent in writing to the Office of Residence Life. The Housing Appeals Committee will review all requests. During the month of January, current students submit housing agreements for the following year. These materials are provided to all residence hall students

Slippery Rock University has a diverse student population living in university residences. Therefore, in compliance with the Pennsylvania Fair Education Practice Act, all residence assignments are made without regard to race, religion, color or national origin. Having accepted the Act, the university believes that a cross section of cultures provides a pluralistic community environment and exceptional opportunities for student development.

The Office of Residence Life provides nine living learning communities for residence hall students. These communities offer an opportunity for students to apply to live with other students who share similar interests and majors. Information regarding the living learning communities is provided along with housing agreement materials.

Students who reside in university-owned residence halls must contract to eat in the university dining facilities. No extensive cooking is permitted in the residence halls.

Campus residence halls will be closed to all students during university vacation periods and also between summer sessions and semesters. All students will be expected to leave the residence halls no later than 24 hours after their last examination. A designated residence hall will be open for summer sessions.

Students must vacate their rooms within 12 hours of withdrawal from the university, unless written permission is received to remain for a longer time period.

### **Housing, Off-Campus**

Off-campus housing is available in privately owned residence halls, apartments, rooming houses and mobile homes. The University does not inspect or approve off-campus housing. Housing within the borough of Slippery Rock must comply with the housing code for property maintenance of the borough, which sets legal standards for safety (sanitation, freedom of hazards, etc.) and livability (water, ventilation, heat, etc.). Housing in the township does not fall under the jurisdiction of the Slippery Rock Borough zoning laws, but it must meet minimal health standards as determined by Butler County.

In addition to this housing, a number of rooms and apartments are available in the community. Off-campus housing lists are available on the Residence Life website. Students who live off campus may contract to eat in the university dining facilities.

The Assistant Vice President for Student Development serves as mediator in landlord-tenant problems for students living off campus. Students desiring assistance should contact the Assistant Vice President for Student Development's office at 724-738-2525 to schedule an appointment.



### **Student Government Association**

All students, by virtue of their undergraduate registration and payment of fees, are members of the Student Government Association. The Student Senate is the central representative and legislative organization of the university Student Government Association. The Student Senate recommends to the university the recognition of student organizations, allocation of the General Service (Activities) Fee money, and carries out other responsibilities as included in the Student Government Association constitution.

The role of the SGA is to act as an advocacy group for the students of SRU in order to ensure a healthy academic and social environment and to provide such services to the student body.

### **Student Organizations**

Student organizations at Slippery Rock University provide excellent opportunities for self-development and self-expression. However, the success of student activities rests largely with the students. Students are encouraged to become involved in organizations as their time and interest warrant. There are more than 140 organizations, activities, and club sports, which have been created from student interest. The scope of the organizations includes athletics, drama, music, service, social, scholastic interest, the media, academic honoraries, governance and special interest groups. A variety of resources and workshops are available to assist student organization members with developing and enhancing their leadership skills. For more information about student organizations call the Center for Student Involvement & Leadership at 724-738-2092.

### **Student Conflict Resolution Services**

Slippery Rock University is an academic community in which there is mutual respect and trust of the persons who learn, teach, and work within it. Students of Slippery Rock University are entitled to certain rights and privileges which must be protected through fair and orderly processes and which are best safeguarded when each student acts responsibly. All students of the university community are equally entitled to the protection of the code of conduct. Students are expected to be familiar with the provisions of the Code of Conduct which is available at <http://www.sru.edu/studentlife/oscrs/pages/studentcodeofconduct.aspx>

## **Student Intervention Services**

The goal of Student Intervention Services is to intervene before there is a significant problem. Student Intervention Services coordinate the care and outreach for students of concern. Students of concern have a large continuum and range. Some examples are: behavioral issues (inside and outside the classroom), suicidal ideation or suicide attempts, victims/survivors of traumatic events (interpersonal violence, sexual abuse, alcohol/drug abuse, cultural/diversity insensitivity, familial/friend death), parasuicidal acts (eating disorders/self-mutilation) and escalated student conflicts. Administrators, faculty, staff, classmates, and parents are welcomed and encouraged to refer students to the office directly by calling the office or assisting the student in contacting the office. Please call the office for any questions or concerns at 724-738-2507.

### **T**heatre Productions

The Department of Theatre sponsors an active co-curricular program, partially funded by student activity fees. Each year it presents a season of faculty-directed productions: a balance of Broadway hits, new plays, classics of the world theatre, and, occasionally, a musical.

Participation in the program is open to any interested student and is not confined to theatre majors. A chapter of Alpha Psi Omega, the national collegiate dramatics honorary, selects its members based on commitment and achievement in the theatre.

### **University Police**

All university community members have the responsibility to create and maintain a safe environment to live, work, and learn. The university police department has the responsibility to enforce the law and university policies to maintain campus safety. In addition to the enforcement of law and university policy, the university police department performs

other functions such as investigations (criminal, traffic, and accidents), open and secure buildings, provide emergency first aid, monitor and respond to fire and intrusion alarms, provide a communication desk for information and emergency purposes, patrol grounds, provide escorts, and other responsibilities as determined by the administration.

The department has a complement of 16 commissioned officers that provide 24-hour, year round coverage. All university police officers are commissioned by the Governor of Pennsylvania and carry full police powers pursuant to the provisions of the Act of April 9, 1929, P.O. 177 known as "The Administrative Code of 1929" as amended. This includes, but is not limited to, the authority to arrest and issue citations. All officers have completed basic municipal police training as administered by the Municipal Police Officers Education and Training Commission.

Officers receive additional training through mandated updates and special training seminars. They are re-certified, as required, in first aid and CPR. The officers must qualify with their side arms and auxiliary weapons three times each year.

The department has conformed with uniform crime reporting procedures since 1970, submitting monthly reports to both federal and state governments. For a more complete analysis of the reports submitted, see "Crime in the United States" published by the U.S. Department of Justice. We also conform to "CLEARLY" and "Security Policies and Procedures" mandated by Federal and State Legislation. Please see contact us for a brochure.

All criminal or suspicious activity should be reported to a law enforcement agency. Slippery Rock University police department is the law enforcement agency of record for the campus.

Federal regulations require an official of the institution who has significant responsibility for student activities, but does not have significant counseling responsibilities, to report criminal offenses to law enforcement authorities.

University police routinely report maintenance problems regarding safety and security. They also suggest improvements pertinent to crime prevention.

The university police department has developed programs addressing personal and property safety for students and staff. Some of these programs or parts of them have been incorporated into student and staff orientations. Individuals or groups seeking information concerning the availability of literature or presentations are urged to contact the University Police Department.

As a fully authorized police force, an ability to assist neighboring police departments exists. Continued liaison with federal, state, and local law enforcement agencies promotes the exchange of information concerning criminal activity at on and off campus sites. This sharing of information greatly enhances the ability of law enforcement agencies to perform more efficiently in an effort to provide a safe community.

All vehicles parked on university property must be registered and display a current and properly mounted parking permit. All students are permitted to have vehicles on campus provided the vehicles are registered and have the proper decals and assuming the operators maintain good standing with regard to their parking privileges. Failure to comply with parking regulations is dealt with in accordance with the procedures contained in the University Parking and Traffic Regulations. To contact the University Police, please call 724-738-3333.

### **University Program Board**

The University Program Board (UPB) is the major co-curricular sponsor of student activity events. It consists of five specialized committees and an executive position, all occupied by students, who provide variety of entertainment programming for the campus community. The five committees are: Concerts, University Events, Cultural Arts, Speakers, and Marketing. The University Program Board invites you to enjoy their many events. Most events are free of charge for SRU students. All students are encouraged to become a part of this exciting student organization and help create campus entertainment. For additional information, call 724-738-2729/2723 or visit the office located in the Student Center.

### **Robert M. Smith Student Center**

The mission of the Robert M. Smith Student Center is to serve as a gathering place for the campus community. The services, programs, activities, and opportunities that the Student Center provides are designed to meet the needs of

students, faculty, staff, and visitors and foster a sense of community and campus loyalty. Through their involvement with the Student Center, students develop skills in leadership, citizenship, diversity awareness, and professionalism. In addition to various lounges and meeting spaces, the following offices and services are located in the Robert M. Smith Student Center: Student Center Operations, Student Life Administration, Conference Services, Cooperative Activities, PNC Bank, Electronic Technology Center, Starbucks, SGA Bookstore, Rocky's Food Court, Quaker Steak & Lube, and the Student Development Suite including the Center for Student Involvement & Leadership, Multicultural Development, Women's Center, Assistant Vice President for Student Development, Student Government Association, University Program Board, LGBTQ Resource Room, and other student organization offices. For additional information, stop by the Student Center Information Desk or call 724-738-4296.

### **Women's Center**

The Women's Center is a resource center serving students, staff, faculty, and members of the surrounding community. Its goal is to enhance the lives of women at SRU. Women's Center staff work collaboratively with other areas on campus to educate the campus community about women's contributions to society and to challenge barriers to gender equity. The Women's Center offers a safe, comfortable environment for women and men to study, talk, or just relax between classes. The Women's Center also serves as a meeting space for student organizations and university committees.

### **Library**

Bailey Library ranks as one of the best public or private university libraries in Pennsylvania. The library on-line system allows easy searching of the library's collections from any computer or Smartphone. Holdings include print and electronic books, government documents, more than 57,000 on-line full-text journals, and thousands of audio-visual titles and digital collections.

Bailey Library offers a full range of resources and services supporting classroom instruction and distance education. There are formal and informal study areas for serious scholarship and recreational reading, T&B, a popular café, the library archives and special collections, and 300 public access computers (including 150 laptops for use anywhere in the building on the library wireless network). A new **Technology Learning Center** offers students assistance with any technology problem they encounter doing research, completing assignments, or creating content in any medium.

**Collections** - With total collections of more than **2 million** items, Bailey Library ranks as one of the larger libraries in western Pennsylvania and in the entire Commonwealth. Print collections include approximately **540,000 books** plus thousands of bound periodicals. As a US government partial depository library, holdings include more than 370,000 U.S. and Pennsylvania state documents. Supplementing the print collections are **57,000 full-text electronic periodical titles, 192,000 e-books**, 1.5 million microforms, over 2,000 audio CDs and 5,000 feature films on DVD. The library subscribes to more than 300 print periodicals and newspapers from around the world. Faculty librarians are available to assist with any kind of reference inquiry, offering individual consultations, and group instruction. The interlibrary loan and document delivery services provide access to virtually any content not directly available through the library's own collections and databases. Most electronic resources are accessible from anywhere on the University network and from off-campus with appropriate authentication. Bailey Library is open to all citizens of the Commonwealth.

Bailey Library is a member of the Keystone Library Network, which was developed by the Pennsylvania State System of Higher Education to help meet the information and learning needs of its students, and the citizens of the Commonwealth. KLN provides an easy-to-use database of the 14 State System university libraries, allowing access to the collections of all 14 libraries, and a core collection of electronic resources available to all students, faculty and staff of the System.

Library hours of operation are posted on the Bailey Library homepage:

<http://www.sru.edu/academics/library/Pages/Home.aspx> and in the library. Contact the Library at 724-738-2058.

# The University

Click on a link to be taken to the entry below.

- The University
- Vision
- Mission
- Accreditation
- Institutional Assessment
- Location
- Students
- Faculty
- Campus
- Grants and Sponsored Research
- SRU Leadership Development Program
- University Advancement - Alumni Relations

## The University

Slippery Rock University of Pennsylvania, one of 14 state-owned institutions that comprise the State System of Higher Education of the Commonwealth of Pennsylvania, has a long tradition of providing quality education to students. Started in 1889 as a teacher education institution, the university developed into a multi-purpose institution with approximately 8,500 students and with approximately 135 programs in the College of Business, Information, and Social Sciences, College of Education, College of Health, Environment and Science, College of Humanities, Fine and Performing Arts, and Graduate Studies.

## Vision

Slippery Rock University will excel as a caring community of lifelong learners connecting with the world.

## Mission

The fundamental mission of Slippery Rock University is to provide high quality undergraduate and graduate academic instruction. Complementary missions are to conduct scholarly research, to promote professional performance, and to address the educationally related economic, health, environmental, social, cultural, and recreational needs of the region served by the university.

To accomplish these missions, Slippery Rock University primarily focuses its efforts in the academic areas of:

the arts and sciences,  
business,  
communication,  
computer, and information sciences,  
environmental sciences and studies,  
health and human services and,  
teacher education,

The perspectives of Slippery Rock University are contemporary and futuristic, national and international. The university provides experiences and opportunities for students to demonstrate leadership and to develop confidence and self-reliance; it promotes their intellectual, social, and physical development; and it accomplishes these in an open, caring, nurturing, and friendly environment. Slippery Rock University is committed to serving and empowering all segments of the population that can benefit from its offerings.

The individual and collective excellence for which Slippery Rock University stands will continue to be measured by the quality of its graduates and their successes in serving society.

## Accreditation

Slippery Rock University is accredited by the following accrediting agencies:

### **Institutional Accreditation**

Middle States Commission on Higher Education

### **College of Health, Environment and Science**

American Physical Therapy Association (APTA) - Physical Therapy

National League for Nursing Accrediting Commission (NLNAC) - Nursing

Commission on Accreditation of Allied Health Education (CAAHEP) - Exercise Science

American Society of Exercise Physiologists (ASEP)

Commission on Accreditation of Athletic Training Education (CAATE) - Athletic Training

National Recreation and Park Association (NRPA) - Park and Resource Management; Resort Management/Tourism; Therapeutic Recreation

### **College of Education**

National Council for Accreditation of Teacher Education (NCATE)

Council for Accreditation of Counseling and Related Educational Programs (CACREP)

Community Counseling  
School Counseling  
Student Personnel

The College of Education has also attained national recognition from the following organizations:

American Council on the Teaching of Foreign Languages (Spanish and French Education)

National Association for the Education of Young Children (Early Childhood Education)

Association for Childhood Education International (Elementary Education)

National Council for Teachers of English (English Education)

National Council for the Social Sciences (Social Studies Education)

Council for Exceptional Children (Special Education)

National Council for Teachers of Mathematics (Math Education)

### **College of Business, Information and Social Science**

Accreditation Board for Engineering and Technology (ABET)

Computer Science  
Information Systems  
Information Technology

Accreditation Council for Business Schools and Programs (ACBSP)

Commission on Sport Management Accreditation (COSMA) - Sport Management

Council on Social Work Education (CSWE) - Social Work

Institute for Safety and Health Management (ISHM) - Safety Management

### **College of Humanities, Fine and Performing Arts**

National Association of Schools of Art and Design (NASAD) - Art; Fine Arts

National Association of Schools of Dance (NASD) - Dance

National Association of Schools of Music (NASM) - Music Instrumental; Music Performance; Music Therapy

National Association of Schools of Theatre (NAST) - Theatre

### **Institutional Assessment**

Assessment is the process through which effective learning is planned and measured by relating degree program goals to actual student performance. We do assessment to improve student learning. The Assessment Core Committee of Slippery Rock University has been working since 1998 to help the University community develop effective assessment processes. The web site reflects the collective efforts of both academic and student life programs to articulate student-learning outcomes and to devise appropriate and effective means of measuring student achievement.

For more information on assessment: <http://www.sru.edu/academics/assessment/Pages/Assessment.aspx>

## **Location**

Students and visitors to the SRU campus discover that the University is located in a small town of about 3,500 permanent residents. The University is also in the middle of a population center of about 120,000 people. Two major interstate highways, I-79 and I-80, intersect seven miles from the University and make the university easily accessible to Pittsburgh and Erie, PA, and to Youngstown, Ohio. Students can travel fifty minutes south on I-79 to Pittsburgh and enjoy its major cultural venues that include opera, symphony, theatre, and museums and its major league baseball, football and hockey teams. The city of Erie, Presque Isle, and Lake Erie are an easy 90 minutes north on I-79, and thirty-five miles west on I-80 is Youngstown, Ohio.

Most students enjoy instructional experiences on-campus. In addition, students use learning facilities at nearby Moraine State Park, Jennings Environmental Education Center, McKeever Environmental Learning Center, Regional Learning Alliance at Cranberry Woods as well as the Wallops Island Marine Science Laboratory in Virginia. Many academic departments sponsor internship programs that provide on-the-job educational and professional training. Opportunities to study abroad in international settings are available to students.

## **Students**

Approximately 80 percent of Slippery Rock University's 8,700 students are from western Pennsylvania, with Pittsburgh and other cities in Allegheny County providing the largest number of students. Another 10 percent of the student body comes from central and eastern Pennsylvania. The remaining 10 percent comes from more than 32 states in the United States and more than 37 other countries.

# Faculty

The approximately 425 faculty members at Slippery Rock University are teachers, scholars and contributors to the University and community. The typical faculty member teaches four courses each semester, engages in scholarly research and creative endeavors, and participates in a variety of decision-making processes. Of the current faculty members, fifty-three percent are male and forty-seven percent are female. Seventeen percent are members of ethnic groups. In addition, 80 percent are tenured or occupy tenure-track positions, and 92% of full-time tenure or tenure track have instructional faculty have earned a Ph.D. or other terminal degree. <>

# Campus

Slippery Rock University's gorgeous 650-acre campus is located in the rolling countryside of Western Pennsylvania. Thirty-four major buildings that blend traditional and modern architecture comprise the core of the campus for an optimum living and learning environment.

Among public and private universities in Pennsylvania, Bailey Library ranks as one of the most comprehensive public or private university libraries in Pennsylvania. The library website and online catalog allows easy searching of more than 500,000 print volumes in the library's collections, as well as many other resources including over 150,000 electronic books and 32,000 e-journals. Print and electronic materials at the other Pennsylvania State System university libraries, as well as the collections of thousands of libraries nationwide are accessible through inter-library loan. Swope Music Hall is designed as both a performing and learning center. Vincent Science Hall has laboratories, classrooms, and a greenhouse. Morrow Field House is an instructional and recreational facility that houses a gymnasium, swimming pool, handball court, dance studio, tennis court, and track. McKay Education, Spotts World Cultures, and Eisenberg Classroom Building are examples of standard educational facilities that have small and large classrooms, auditoriums and other specialized classrooms. The Physical Therapy building is a state-of-the-art building where the Graduate School of Physical Therapy program is located. International Services resides in the recently renovated Carruth Rizza Hall. The Advanced Technology and Science Hall opened in 2006 and houses Computer Science, Chemistry and Geography, Geology, and the Environment.

Students reside in eight on-campus residence halls. Six new buildings house students on the lower end of campus and two traditional halls are located on the upper end of campus. Upper class students can reside at the ROCK apartment complex. Privately owned residence halls, apartments, and other types of living accommodations are available off-campus. Students take their meals at Weisenfluh and Boozel dining halls.

# Grants and Sponsored Research

Research and scholarship are central features of any academic environment. At Slippery Rock University, faculty and students are active in a wide range of internally and externally funded projects that support the research, teaching and public service missions of the university. The Office of Grants & Sponsored Research (OGSR) is responsible for assisting faculty in the acquisition of external funding for scholarship, research, and other projects; representing the university in pre-award and award transactions with funding sponsors; acting as a liaison between project directors, sponsors, administration, and external groups; and assisting with post-award administration of grants and contracts to assure compliance with federal, state, and university directives. The office also provides the administrative oversight to the Institutional Review Board (IRB) for ethical implementation of research projects involving human subjects and works closely with the Institutional Animal Care and Use Committee (IACUC) to ensure that the animal housing, care, and use in research labs meets federal standards and guidelines.

The Center for Student Research supports and promotes high-quality student/faculty collaborative research, scholarship and creative activity. The Center's mission is to create a community of leaders by facilitating the exchange of ideas, to provide a collegial venue that prepares students for further scholarly exploration and professional careers, and to promote scholarly inquiry as a fundamental value of the SRU experience. A Symposium for Student Research, Scholarship and Creative Activity is held annually to highlight the research, creative and scholarly endeavors of

undergraduate and graduate students. The two-day, campus-wide event encompasses poster sessions, oral presentations and performances that showcase the work of projects conducted throughout the academic year.

## **SRU Leadership Development Program**

Leadership Development Center

1 Morrow Way  
Slippery Rock, PA 16057  
724-738-4334

**Director**

Erin Strain  
erin.strain@sru.edu

The most unique Executive Leadership Training Opportunity in the State. The 25-acre Leadership Reaction Course at Slippery Rock University provides a perfect setting for leadership training. It is ideal for corporate camps and conferences, police, fire and EMS programs, student workshops, athletic teams and management seminars. Everything a group needs for enrichment is on site: obstacle and rope courses, a climbing wall, rappel tower, pavilions, camping areas, and inter-connecting trails. Groups lease the course and lodging is available. Packages range from a two-hour activity, to a week-long adventure retreat. Slippery Rock University provides trainers and educators for all events. A high ropes challenge program (REACH) is also available to develop personal confidence and promote concepts of team work.

## **University Advancement - Alumni Engagement**

Russell Wright Alumni House  
724-738-2018

**Director**

Kelly Bailey

**Associate Director**

Pearl Shaffer

**Assistant Director**

Tracy Allison

**Secretary**

Katherine Stivason

Slippery Rock University has more than 55,000 graduates living throughout the country. Alumni are encouraged to join the Slippery Rock University Alumni Association, a separately incorporated organization that is devoted to serving the university and its alumni. One-year complementary memberships are provided to graduating seniors.

The Slippery Rock University Alumni Association hosts several events in the region and across the country to engage alumni. A variety of benefits are associated with membership to the association, including discounts on insurance, partnerships with national travel partners and savings at campus entities including the SGA bookstore and ARC. Significantly, the Alumni Association manages and awards twelve scholarships. Eleven of the scholarships, the Past Presidents' Scholarship, the Nancy Angell Scholarship, the Madeline F. Stoops Scholarship, the Hallie Dugan Smith Scholarship, the Eisaman Alumni Scholarship for sophomore students, the Maree McKay/ Esther Smiley



Scholarships, the Carl and Norma Laughner Scholarship, the Maggie Meise Fellowship, the Watson Family Scholarship, Jeanne Powell Furrie Scholarships and the Anna Bura Williams Scholarships for women elementary education majors, are for academic excellence. the N. Kerr Thompson is for student athletes.

The association also sponsors Homecoming and Alumni Reunion Weekend as well as special events throughout the year. Additional information on the Alumni Association as well as upcoming events can be found in the university's Rock Magazine, which is published three times a year, and on the alumni web site at [www.rockalumnicafe.com](http://www.rockalumnicafe.com) or at [www.sru.edu](http://www.sru.edu) and then clicking on Alumni.