Rock Solid

2003/2004 Undergraduate Catalog



Slippery Rock University℠

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Slippery Rock University℠ of Pennsylvania

Undergraduate Catalog

2003/2004

To Apply:
Contact the Office of Admissions
Toll free 1-800-929-4778
or
apply@SRU.edu

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.

Slippery Rock University of Pennsylvania is a member of the Pennsylvania State System of Higher Education

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SlipperyRock University

Robert M. Smith
Interim President

300 Old Main
Slippery Rock, PA 16057-1326
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robert.smith@sru.edu

Dear Students:

Welcome to Slippery Rock University of Pennsylvania. Discover what a special place this is.

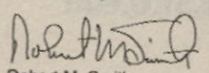
You will not only find a beautiful, historic campus spreading over 600 rolling acres, but also an interested faculty committed to helping you succeed both inside and outside the traditional classroom. The faculty at Slippery Rock University are dedicated to your learning experience. Our vision is to create for you a caring community of lifelong learners connecting with the world.

I believe you'll be excited about the possibilities we offer. Here you will find classes taught by professors and not graduate students. You will participate in class discussions, work on group projects, and spend time with professors after class. You will find the latest technology to help you prepare for the complex demanding digital world. You will be offered internships and real-world experiences that prepare you for your career and for leadership opportunities.

I believe you'll be excited about the opportunities we offer. Last year, over two hundred of our students presented, exhibited or performed original works or research at regional, state, national and international professional meetings. Fourteen students presented in Poland. Several students presented and helped host the Fourth International Congress of Sciences Applied to Soccer in Costa Rica. Three students presented research to an undergraduate symposium sponsored by the U.S. Congress. Two undergraduates presented at the National Research Conference in Salt Lake City. All three research awards presented to students at the Pennsylvania State System Philosophy Conference were won by SRU students. Another 145 Slippery Rock University students attended professional conferences with faculty colleagues. These types of real life experiences are the opportunities that provide a link between the classroom and the world beyond our campus. Last year, we placed 95% of our graduates in either a graduate/professional program or on to the first step of their career.

Success at Slippery Rock University is all about choices: Choices you make to achieve your goals. We believe you control your destiny. The information provided in this catalog will be helpful for planning. Standing behind this information are almost 1,000 members of our faculty and staff pledged to help you succeed.

Best wishes,



Robert M. Smith
Interim President

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) 724-738-2012
Admissions (Freshman Undergraduate) –
Office of Admissions ..... 724-738-2015 or 1-800-929-4778
Admissions (International Undergraduate) –
Office of International Initiatives 724-738-2057
Admissions (Transfer undergraduate) –
Office of Admissions ..... 724-738-2015 or 1-800-929-4778
Admissions (Readmission Undergraduate) –
Office of Admissions ..... 724-738-2015 or 1-800-929-4778
Admissions (Graduate) – Office of Graduate Studies 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 or 1-800-SRU-9111
Career Services – Office of Career Services 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
Continuing Education – Office of Continuing Education 724-738-2633
Counseling – Counseling Center 724-738-2034
Financial Aid – Office of Financial Aid 724-738-2044
Health Center – Health Services 724-738-2052
Honors Program – 724-738-3722
Information Technology 724-738-2800
International Student Information –
Office of International Initiatives 724-738-2057
Orientation – Office of Orientation 724-738-2067
Registration – Office of Academic Records and Summer School 724-738-2010
Residence Halls – Office of Housing 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 Life 724-738-2092
Student Employment – Office of Career Services 724-738-2028
Student Records/Transcripts –
Office of Academic Records and Summer School 724-738-2010
Study Abroad – Office of International Initiatives 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

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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 statements 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.

Affirmative Action Statement

Slippery Rock University is committed to providing leadership in taking affirmative action to attain equal educational and employment rights for all persons, without regard to sex, age, handicap, or other legally protected classes. This policy is placed herein in accordance with state and federal laws including Title IX of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973. Please direct affirmative action inquiries to the Office of Diversity & Equal Opportunity, Slippery Rock University of Pennsylvania, Slippery Rock, PA 16057. Telephone: 724-738-2650.



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 8,000 students and with over 60 degree 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,
teacher education,
environmental sciences and studies,
health and human services,
business and public administration,
computer and information sciences and
communication.

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:

Commission on Higher Education
Middle States Association of Colleges and Schools
3624 Market Street
Philadelphia, PA 19104-2680
www.masache.org

Accreditation Association for Ambulatory Health Care, Inc.
3201 Old Glenview Road, Suite 300
Wilmette, IL 60091
www.aaahc.org

American Physical Therapy Association
1111 N. Fairfax
Alexandria, VA 22314-1488
www.apta.org

American Society of Exercise Physiologists
Department of Exercise Physiology
The College of St. Scholastica
1200 Kenwood Avenue
Duluth, MN 55811
www.asep.org

Association of Collegiate Business Schools
7007 College Blvd., Suite 420
Overland Park, KS 66211
www.acbsp.org

Commission of Accreditation of Allied Health Education Programs
35 E. Wacker Dr., Suite 1970
Chicago, IL 60601-2208
www.caahep.org

Council on Social Work Education
1600 Duke St., Suite 300
Alexandria, VA 22314
www.cswe.org

National Association of Schools of Dance
11250 Roger Bacon #21
Reston, VA 20190
www.arts-accredit.org/nasd/am.html

National Association of Music Therapy
505 11th St., S.E.
Washington, D.C. 20003
www.musictherapy.org

National Association of Schools of Music
11250 Roger Bacon #5
Reston, VA 20190

National Council for the Accreditation of Teacher Education
2010 Massachusetts Ave., N.W.
Washington, D.C. 20036-1023
www.ncate.org

National League for Nursing, Inc.
350 Hudson St.
New York, NY 10014
www.nln.org/nlnjournal

National Recreation and Park Association
22377 Belmont Ridge Road
Ashburn, Virginia 20148
www.activeparks.org//education/highered.cfm

LOCATION

Students and visitors to the SRU campus discover that the university is located in a small town of about 3500 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 ninety 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, Waterfront Corporate Park in the North Hills of Pittsburgh, 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 70 percent of Slippery Rock University's 7,800 students are from western Pennsylvania, with Pittsburgh and other cities in Allegheny County providing the largest number of students. Another 22 percent of the student body comes from central and eastern Pennsylvania. The remaining 8 percent comes from more than 40 states in the United States and over 70 other countries.

Faculty

The 405 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. Eleven percent are members of ethnic groups. In addition, eighty-five percent are tenured or occupy tenure-track positions, and ninety-eight percent hold advanced degrees with seventy-five percent holding doctorates, MFA's, or law degrees.

Campus

Slippery Rock University's gorgeous 600-acre campus is located in the rolling countryside of Western Pennsylvania. Thirty-one 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 best public or private university libraries in Pennsylvania. The library online system allows easy searching of the library's print collections, as well as many other resources including NetLibrary electronic books, over 11,000 online full-text journals, and the resources of many other Pennsylvania libraries. Swope Music Hall is designed as both a performing and a 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 classrooms that have small and large classrooms, auditoriums, and other specialized classrooms. Two recent building additions to campus are the graduate School of Physical Therapy and the Carruth Rizza Hall.

Students reside in eight on-campus residence halls that are located conveniently to most of the other campus buildings, and 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.

Recreation Opportunities

The Robert N. Aebersold Recreation Center, an 83,000 square foot facility, offers a myriad of physical fitness areas. These range from aerobic workout areas to a 40-foot climbing wall. The "ARC," built following a student initiative with student funding, is open year-round and includes the Russell Wright Fitness Center. A 200-meter, indoor running track is part of the complex as is a 3,428 square foot indoor pool. A sun deck is adjacent to the pool. One gymnasium area offers four, wood-floor courts for basketball, volleyball, badminton, and other physical activities, and a second gymnasium area offers space for aerobics, floor hockey, deck hockey, and soccer.

The University Union is another campus hub with a bookstore, grille, recreation areas, and meeting rooms.

Several tennis courts, a 10,000-seat football stadium, four major athletic fields, and nine auxiliary fields provide other recreation opportunities to augment the ARC and the Union. The newest athletic facility, the Jack Critchfield Park, is a 1,500-seat baseball stadium that opened in April 2002.

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 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.

A Symposium for Research and Scholarship is held annually to highlight the research and scholarly endeavors of faculty, staff and 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.



ADMISSION **to the University**

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.

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, class rank, service and leadership, special talent, essay quality and letters of recommendation. 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;

four years of social studies; 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; and two years of the same foreign language.

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)
- A $ 25.00 application fee (non-refundable)
- Official high school transcripts or GED, and senior year (12th Grade) class schedule if enrolled in high school

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. 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.

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 will either be offered admission or placed on a Waitlist. Once capacity is reached, the admission of new freshmen students is restricted, and any Waitlist applications not acted upon will be denied admission. The date that new freshmen student admission is restricted is subject to change. Applicants who are offered admission must reply to Slippery Rock to accept their offers of admission, along with remitting an orientation deposit, before they are considered admitted. Admission offers not acted upon are subject to rescission once enrollment capacity is reached. New freshmen students seeking admission for the fall semester are encouraged to apply beginning the preceding August and not later than the preceding April.

Freshman admission is valid for the term it is offered, or any subsequent term for not later than one academic year, defined as starting in summer and ending with the spring semester. Students wishing to defer admission should contact the Office of Admissions.

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 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 admission to Slippery Rock University. Transfer applicants who receive offers of admission generally possess a cumulative grade point average of 2.0 or greater on a 4.0 scale from all institutions attended. Students who were suspended or dismissed from Slippery Rock University and subsequently attend another institution do not apply for transfer admission. These students should consult the appropriate college dean's office.

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 Admission:

- A completed Application for Admission (admission applications are available through the Office of Admission and via the web at **www.sru.edu**)
- Official transcripts from each post-secondary institution attended.

- Official high school transcripts are required if the student will not hold an associate degree at the time of enrollment at the university or has not completed 60 semester hours of enrollment 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, 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 conditional 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 post-secondary institution is provided upon request. An official evaluation is provided when a student accepts the offer of admission. 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). A maximum of 67 semester credit hours will be considered for transfer from a two-year institution. The University will also maximize the number of transfer credits at 67 semester credit hours for students who last attended a two-year institution. There is no limit to the number of credit hours a student may transfer from a baccalaureate degree granting college or university; however, students are subject to Slippery Rock University residency requirements.

To qualify for graduation a student must fulfill all Slippery Rock University academic requirements and complete the last 36 credits in residence at the university. To be considered for graduation with honors, students must earn a minimum of 61 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 QPA 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 (to a maximum of 67 of the credit hours for the baccalaureate degree) earned at the community college level toward the completion of the baccalaureate degree. Up to a maximum of 45 credits earned at the sending institution shall be used to meet liberal studies. 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 State System of Higher Education Universities

- Students transferring from other State System of Higher Education universities who have attained a 2.000 QPA or higher in a minimum of 12 credit hours of college level course-work and hold a minimum 2.000 QPA from all institutions attended hold an Academic Passport and are guaranteed admission to the university.
- 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.

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.

Due to the logistics of obtaining transcripts from other educational institutions, and the time required to evaluate previous course work, prospective transfer students are strongly encouraged to apply for admission and request the required credentials as soon as possible, and not later than one month prior to the first day of classes for the term they wish to begin enrollment.

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 36 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.

Students interested in pursuing post-baccalaureate admission should contact the university's Office of Undergraduate Admission at 1-800-929-4778.

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

Applicants need to supply the following credentials to apply for admission:

- A completed Post Baccalaureate Application for Admission
- A $ 25.00 application fee (non-refundable)
- Official transcripts from all colleges, universities, or other post-secondary educational institutions attended.
- Other program specific documentation may be required. Contact the Office of Admissions or see the Post Baccalaureate Application for Admission for further information.

These credentials should be sent to the Slippery Rock University Office of Admissions. The application process for teacher certification and nursing programs may require additional application credentials. Generally, for non-selective/non-teacher certification degree programs, most students who successfully graduate from a college or university are offered admission.

Due to the logistics of obtaining transcripts from other educational institutions, and the time required to evaluate previous course work, prospective post baccalaureate students seeking a second degree or teacher certification are strongly encouraged to apply for admission and request the required credentials as soon as possible, and not later than one month prior to the first day of classes for the term they wish to begin enrollment.

Admission Guidelines for Post Baccalaureate students seeking to enroll for enrichment

Individuals who hold a baccalaureate degree from an accredited college or university may seek to enroll in a course, or courses, for personal enrichment, preparation for graduate study or examination, or ACT 48 credit. Slippery Rock University welcomes these students on a space available basis.

How to apply for admission as a Post Baccalaureate student seeking to enroll for enrichment

Applicants need to supply the following credentials to apply for admission:

- A completed Post Baccalaureate Application for Admission
- Official transcripts from the accredited college, university, or other post-secondary educational institution that awarded the baccalaureate degree. Other transcripts are not required for admission but may be necessary to support individual course prerequisites.
- Current teachers are required to submit a copy of a valid teaching certificate

in place of transcripts when applying for ACT 48 credit.
- Applicants should see the Post Baccalaureate Application for Admission for information regarding the $ 25.00 application fee (non-refundable)

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 Admissions directly for more information, and to schedule a meeting to discuss the Fast Track application process.

How to apply for Admission as a Non-Degree Student

Applicants need to supply the following credentials to apply for admission:
- A completed Special Student (non-degree) Application for Admission
- Special student applicants pay no 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
- Generally 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 Academic Records and Summer School for this 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.

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 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 through the Office of Admission; however, application forms are to be routed through the Office of Academic Records and Summer School.

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 temporary admission decision. No final decision will be made pertaining to acceptance to the university or acceptance of transfer credit until the university receives the official documents.

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.

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 occured 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.

You can obtain a copy of the **Annual Security Report** at the following website: **www.sru.edu.pages/1406.asp** or by contacting the Office of University Police at 724-738-3333.

You may access the University's **Student Consumer Website** at **www.sru.edu/pages/1257.asp** or by contacting the Office of Academic Records and Summer School at 724-738-2010.

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 Initiatives:

- 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 109 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 Initiatives or e-mail **kelly.slogar@sru.edu**



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. Both state and Federal financial aid sources are coordinated through this office. The Office of Financial Aid also provides information about scholarship opportunities.

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. Students are able to complete the FAFSA beginning January 1 of the year preceding their next year of enrollment in college. It is recommended that the application should be completed after January 1 and before May 1. The federal school code for Slippery Rock University is 003327, a code that is required on the FAFSA.

In addition, students interested in receiving assistance from either the Federal Stafford Loan or PLUS program must submit the appropriate loan promissory note six to eight weeks in advance of their first date of attendance at SRU.

Financial Aid Programs

Financial aid at Slippery Rock University includes grant, loan, and employment programs. Scholarship opportunities for students are listed in the "University Scholarships" section of this catalog.

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.

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.

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.

Federal Work Study (FWS) - Employment based on financial need may be available to eligible students. FWS is a part-time employment program. Students employed by FWS receive a paycheck on a bi-weekly basis and are paid at least minimum wage. FWS job opportunities are located throughout the campus. Available FWS positions are publicized through the Office of Career Services. Students may wish to seek employment through the Community Service Work Study program or through the America Reads Challenge. Students may be employed through the America Reads Challenge as reading tutors for elementary school children. Information regarding job opportunities through Community Service Work-Study can be obtained from the SRU Financial Aid Office. Eligible students can contact the SRU Elementary Education Department for information on job opportunities through the America Reads Challenge.

Federal Perkins Loan - This is a low interest loan that is offered by SRU through the use of Federal funds. Typically, this loan is awarded to undergraduate students who demonstrate a high degree of financial need. Repayment of this loan begins nine months after the student ceases to be enrolled on at least a half-time basis. The SRU Perkins Loan Office can be contacted for additional information regarding repayment of this loan.

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 either qualify for a Subsidized or Unsubsidized Federal Stafford Loan. 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 halftime. 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.

Parent Loans for Undergraduate Students (PLUS) - Parents of dependent students may borrow up to the cost of education less any other financial aid through the use of this Federal loan program.

Other State Grants - Several states allow their students to use state grant funds to attend colleges outside of their home state. Out-of-state students should contact their state grant agency in their home state for more information on eligibility guidelines.

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:

Cost of Attendance
– Expected Family Contribution
= Financial Need

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.

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.

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. 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. These standards apply to all Federal Title IV aid programs including the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Perkins Loan, Federal Stafford Loans, Federal PLUS Loans and Federal Work-Study.

Regardless of whether the student had previously received Title IV financial aid, the minimum requirements for undergraduates to meet the university's definition of academic progress for Federal financial aid purposes are as follows:

Enrollment Status Definitions for Academic Progress

Full-Time: Students enrolled for at least 12 undergraduate credits or 9 graduate credits per semester are considered to be full time.
Three-Quarter Time: Students enrolled for at least 9 but less than 12 undergraduate credits per semester are considered to be three-quarter time.
Half-Time: Students enrolled for at least 6 but less than 9 undergraduate or graduate credits per semester are considered to be half-time.

Satisfactory Progress Measurements

Each student will be measured for sufficient progress annually in May after spring grade processing. This evaluation will determine if the student has sufficient progress to be eligible for Title IV funding for the next financial aid award year. Students who have not met the minimum requirements will receive a letter informing them that they are not eligible for continued financial aid.

The standards of satisfactory progress have both a quantitative and qualitative measure that must be met. Slippery Rock University has established the following quantitative and qualitative standards that must be met.

Quantitative Measures (credits earned):

- Full-time undergraduate students must complete a minimum of 24 new credits (18 new credits for graduate students) by the end of each academic year.
- Three-quarter time students must complete a minimum of 18 new credits by the end of each academic year.
- Half-time students must complete a minimum of 12 new credits by the end of each academic year.
- Students enrolled less than half time must complete the number of credits for which they enrolled by the end of each academic year.

Qualitative Measures (Quality Point Average):

- Students who have completed 2 academic years or its equivalent must have at least a 2.0 cumulative quality point average at the end of each academic year.
- Students who have not completed 2 academic years or its equivalent must have at least a 1.5 cumulative quality point average at the end of each academic year.
- Graduate students must have at least a 3.0 cumulative quality point average at the end of each academic year.

January Admits: If an undergraduate student is admitted in January, that student must complete at least 12 credits for full time study (9 credits for three quarter time study, 6 credits for half time study and all credits for less than half time) and meet the minimum quality point average requirement to have continued financial aid eligibility. If the student is deficient in credits or quality point average, the student will receive a warning letter. Aid will be continued for the fall semester, however at the end of the fall semester, the student will be checked for the completion of the appropriate number of credits based upon the enrollment status and appropriate quality point average. Federal financial aid will be continued for those students who have met both requirements. Students who have not met both requirements will be notified of their ineligibility for Federal financial aid and informed of the options to regain eligibility.

Readmitted Students: If a student is readmitted to the University, satisfactory academic progress will be based on the student's previous attendance at SRU. Students who have not met the minimum requirements will be notified of their ineligibility for Federal financial aid and informed of the options to regain eligibility.

Maximum Time Frame for Federal Financial Aid

Undergraduate students may receive Federal financial assistance for no more than 150 percent of the established length of their program of study. Slippery Rock University has defined this maximum time frame to be 6 years for full-time students, 9 years for three-quarter time students and 12 years for half-time students. A year consists of fall, spring and summer. The maximum time frame will be adjusted based on the student's enrollment status. Credits transferred from other institutions to Slippery Rock University count toward the maximum time frame. A year for maximum time frame and credits transferred is defined as thirty-six credits.

Students changing majors, pursuing a double major or pursuing a second undergraduate degree may be eligible for an extension of time on an individual review basis.

Special Grades and their use in Academic Progress Determination

I..... **Incomplete**: No credits are received for incomplete grades. If the incomplete grade is resolved by the close of the following semester and a passing grade is received, the credits will be counted.
NC ..... **No Credit**: No credits are received.
W ..... **Withdrawal**: No credits are received.
AU ..... **Audit**: No credits are received.
P ..... **Pass:** Student receives credits, but QPA is not affected.
X ..... **No grade given**: No credits are received.

Impact of Repeat of Course on Academic Progress Measurements

The last grade earned is always used in calculating the QPA. If the student failed the course the first time but passes it the second time, the appropriate number of credits will be received after the second attempt. If, however, the student passed the course the first time, repeats it in an attempt to improve the QPA but receives a failing grade, the appropriate number of credits will be deducted from the cumulative credits earned total. Maximum hours earned for any course cannot exceed the number of credits listed for that course in the catalog.

Impact of Summer School on Academic Progress Deficiencies

If a student is deficient in credits and/or QPA at the end of the academic year, the student may use the following summer to eliminate the deficiency. Summer work need not to be completed at Slippery Rock; but students should be aware that:

- Transient clearance must be obtained prior to taking any courses elsewhere if the credits are to be transferred back to SRU.
- Only credits transfer back to Slippery Rock, GRADES DO NOT. If the student's deficiency is in QPA, taking courses at another institution will not make up a QPA deficiency. Credits must be accepted by the Office of Academic Records in order to be counted towards satisfactory progress.

If the student chooses not to attend summer school to make up the deficiency, but opts instead to make up the deficiency during a subsequent semester, only credits successfully completed over and above the required minimum number of credits based on enrollment status will work toward eliminating the deficiency. However, financial aid will not be processed for that semester.

Appeal Process

If the student believes that the academic deficiency is a result of extenuating circumstances (illness, injury, etc.) a written appeal may be submitted to the Academic Progress Appeal Committee c/o Associate Director of Financial Aid. The student must CLEARLY state the reasons for the appeal and explain the circumstances that are believed to have caused the deficiency. The student's social security number and documentation of the extenuating circumstances must be included. Students are encouraged to file their appeal before August 1 for the fall semester, or before November 1 for the spring semester. You will receive a written response to your appeal request. If the committee denies the request for special consideration, an appeal may be made to the Associate Provost for Enrollment Services.

Regaining Eligibility for Federal Financial Aid

If a student does not meet the satisfactory academic progress standards at the beginning of the academic year but later meets the standards during the academic year, the student can be eligible to receive the Federal Pell Grant, FFEL funds, and if available, campus-based program funds beginning with the academic term during which the student first meets the academic progress standards. It is the student's responsibility to contact the Office of Financial Aid after they complete course work if it will allow them to regain eligibility for financial aid.

Academic Progress Requirements for PHEAA Grant

Academic progress requirements for the Pennsylvania State Grant are communicated directly to recipients with their state grant notification by the Pennsylvania Higher Education Assistance Agency (PHEAA).

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. The following sources of financial aid may be available for the summer term: Federal Pell Grant, Pennsylvania State Grant, Federal Work Study, Federal Stafford Loans and PLUS. 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.

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.
- Appeal financial aid decisions to the Associate Provost for Enrollment Services.
- 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

- All aid programs require that the student make satisfactory academic progress as detailed in the financial aid section of the catalog.
- 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, loss of job, etc.)
- Students and families are encouraged to contact the financial aid office at 724-738-2044 or via e-mail at **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.

University **Scholarships**

Slippery Rock University awards more than $600,000 in academic scholarships annually. Students are encouraged to visit the financial aid website at **www.sru.edu/pages/4986.asp** for a current listing of freshman and upper class scholarships awarded through SRU. Students and families are encouraged to contact the financial aid office (724-738-2044) if they have any questions about academic scholarship opportunities.

Scholarships That Are Available

- The Slippery Rock University Association of Pennsylvania State College and University Faculty Scholarship
- Craig Succop Scholarship (Art-Metalsmithing)
- Academic Affairs Scholarship
- Accounting Department Scholarship
- American Legion Post 393 Scholarship
- Art Department Scholarship
- Asian Studies Scholarship
- Band Scholarship (Music)
- Biology Honors Scholarship
- Blase S. Scarnati Scholarship
- Blase Scarnati Endowment Scholarship (Music: Marching Band)
- Board of Governors Scholarship
- Bob and Betty Smiley Scholarship (Physical Education)
- Bonnie Winder Scholarship (Music)
- Bruce Witek Scholarship (Parks & Recreation)
- Campus Side Apartments Scholarship
- Captain Jim Unterwagner Scholarship (Sociology/Anthropology/Social Work)
- Carl and Louise Woodling Scholarship (English or English Education)
- Carl and Norma Laughner Scholarship
- Catherine Schaeffer Scholarship (Special Education)
- Chad Williamson Memorial Scholarship
- Charles B. Hamilton Memorial Art Scholarship
- Charles Brooker Scholarship (Physical Education/Exercise Science)
- Class of '43 Scholarship (Education)
- Class of '57 Scholarship (Education)
- Dale Liken Scholarship

- Don and Terry Phillips Scholarship (Education)
- Dr. James E. Winner, Jr. Family Scholarship (Business Administration)
- Dr. Stephen C. and Susan V. Coulon Scholarship (Physical Education)
- Dwight Baker Memorial Scholarship (Music: Piano or Strings)
- Eben Bass Memorial Scholarship (English)
- Eberly Family Scholarship
- Edna C. Rohwedder Community Service Memorial Scholarship
- Emma Guffy Miller Scholarship (Political Science: Women)
- English or English Education
- General Music Scholarships (Music)
- Genevieve M. Tvrdik Scholarship (Biology)
- Geology Alumni Scholarship
- Governor's School Scholarship
- Grace H. "Arky" Vaughan Scholarship (Physical Education)
- Health and Human Services Scholarship
- Helen Brua Gettig Memorial Scholarship (Education)
- History, Public Administration, Political Science
- Hockenberry Memorial Scholarship
- Honors Program Scholarships
- Howard L. and Margaret Rehm Headland Scholarship
- Irving P. Rosenthal Accounting Scholarship
- J. Kevin Woods Memorial Scholarship
- James E. and Gay K. Dull Scholarship (Music)
- James Steel Memorial Scholarship (Biology)
- John and Helen Williams Endowed Scholarship (Education)
- John and Kathryn Conway Symphony Scholarship (Music: Strings)
- John and Martha Gault Art Scholarship
- Joseph S. Punturerí Memorial Science Scholarship
- Katherine M. Moore Health Education Award
- Kay Wolford Endowment for Education Majors
- Kenneth M. O'Toole Memorial Scholarship (Marketing)
- Kris Chapin Memorial Flute Scholarship (Music: Flute)
- Leo I. Shapiro Memorial Scholarship (History, Public Administration, Political Science)
- Louis D. and Panagiota Pappan Scholarship
- Louis Razzano Scholarship (English or English Education)
- Lucy Isacco Sack Dance Scholarship for Summer Study
- Lucy Isacco Sack Scholarship (Dance)
- M. Clair and Marie Swope Scholarship
- M. Kate Brennan Music Education Scholarship (Music Education)
- Mabel Eichler Vincent Scholarship (Theatre)
- Madeline Farnen Stoops Scholarship (Education)

- Madrigal Dinner Scholarship (Music: Voice)
- Manocha Management Scholarship
- Maree McKay/Esther Smiley Academic Alumni Scholarship
- Marjorie Stephenson Scholarship
- Mary P. Wodiska Memorial Scholarship (Arts & Sciences)
- Meiping Cheng Memorial Scholarship
- Merle Jan Moses Crawford Scholarship (Special Education)
- Michael J. Estocin '54 Memorial Scholarship
- Nate and Irene Maruca Education Scholarship
- Olive Wharton Scholarship (Education)
- Park Ranger Scholarship
- Philip J. Kennedy Scholarship (Accounting)
- Phillips Scholarship
- Physical Education
- Pre-Engineering, Physics & Physics Education Scholarship
- President's Scholarship
- Quality Aggregates Inc. Internship-Scholarship (Safety Management)
- Richard Tillack Memorial Scholarship (Computer Science or Natural Sciences)
- Ritts Scholarship
- Robert Leffingwell Scholarship (Communication)
- Robert N. Aebersold Scholarship
- Ruth Vaughan Coon Scholarship (Physical Education)
- Sadie Lindey Carey Scholarship (Education)
- Samuel G. Sava Scholarship for Elementary Education
- Slippery Rock University Scholarship at Sharon High School
- Sociology, Anthropology, Social Work
- Sophomore Biology Honors Scholarship
- Special Education Alumni Scholarship
- SRU African American Caucus Scholarship Essay Contest
- SRU Career Services Scholarship
- Triangle Tech Scholarship at Slippery Rock University
- SRU Transfer Student Scholarship
- SRU Academic Passport Transfer Scholarship
- SRU/ROTC Incentive Scholarship
- Studio Art Scholarship
- Sue Shuttleworth Music Therapy Scholarship
- Sylvan H. Cohen Public Administrator Scholarship
- Terry Steele Jazz Scholarship (Music: Jazz)
- The Daniel Dmitar Wukich Memorial Art Scholarship
- The Donald Vanecek Memorial Art Scholarship
- The Frank Ross Memorial Art Scholarship

- The Julia Warhola Memorial Art Scholarship
- The Mihal Skarupa Memorial Art Scholarship
- The Printmaking Foundation Scholarship
- Thomas H. John Scholarship (Biology)
- Twyla Hord Memorial Scholarship (Special Education)
- University Academic Scholarships and Dean's Scholarships
- Watson Family Scholarships
- Wolves Club of Coraopolis Scholarship
- Wolves Club of New Castle Scholarship

Scholarships are awarded based on various criteria. Visit the SRU scholarships web page at **www.sru.edu/pages/4986.asp** *or contact the Office of Financial Aid for details.*

Due to the generosity of many individuals and corporations, new scholarship opportunities are established on an ongoing basis. Therefore, additional scholarships may be available but not listed above. For updated information refer to the scholarship web page at **www.sru.edu/pages/4986.asp.** *Scholarship information listed in this catalog is subject to change without notice.*

Athletic Scholarships are administered by the Intercollegiate Athletic Department and awarded by the coaches of each particular sport. Contact the specific coach at the Intercollegiate Athletic Office, 102 Morrow Field House, 724-738-2021.

Army ROTC scholarships are available at Slippery Rock University that cover tuition, fees, books, and a monthly cash subsistence. Contact the SRU Military Science Department at 724-738-2019 for details.

Financial Aid Timeline – A General Guide of What to Do and When

ITEMS TO COMPLETE	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*June*	*July*	*Aug*
(CURRENT AID RECIPENTS) Receive a Renewal FAFSA in the mail from federal processor	●								
Gather financial aid documentation necessary for completion of the FAFSA		●	●	●	●				
(new aid applicants) Obtain a Free Applications for Federal Student Aid (FAFSA) or file on-line at **www.fafsa.ed.gov**		●	●	●	●				
Mail your FAFSA to the Federal Processor. **THE EARLIER THE BETTER!** (keep a copy for your records)		●	●	●	●				
Review your Student Aid Report (SAR) for errors and make necessary corrections			●	●	●	●			
Provide the Financial Aid Office with all requested information				●	●	●	●		
MAY 1 – FAFSA deadline for PHEAA State Grant (FAFSA must be received by processor by this date)						●			
File Stafford Loan Master Promissory Note with lender (new Stafford borrowers)					●	●	●	●	●
Receive determination of PHEAA Grant eligibility						●	●	●	●
Receive billing statement from Office of Student Accounts								●	

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 six 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, financial aid, tutorial assistance, and credits for military service and specific forms. General information is available in the SRU Veterans Benefits pamphlet, or at **www.sru.edu/pages/633.asp**.



TUITION, FEES, AND **Financial Policies**

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

Slippery Rock University is a one of fourteen universities in the State System of Higher Education. The tuition rate is determined by actions by the Board of Governors of the State System of Higher Education.

Pennsylvania Residents

To attend Slippery Rock University, full-time students (students who are registered for 12 or more credit hours) who are legal residents of the Commonwealth of Pennsylvania pay a basic fee of $2,189 per semester for a maximum of 18 credits. Students who are permitted to carry more than 18 credits are charged $182 for each additional credit. Part-time students (students who are registered for 11 or few credits) or extension students who are Pennsylvania residents pay $182 for each credit.

Non-Pennsylvania Residents

Students who are not legal residents of Pennsylvania and who are full-time students (students who are registered for 12 or more credit hours) pay a basic fee of $5,473 per semester for a maximum of 18 credits. Students who are permitted to carry more than 18 credits are charged $456 for each additional credit. Part-time students (students who are registered for 11 or few credits) who are not legal residents of Pennsylvania pay $456 for each credit. These rates apply to all curricula.

Fees

Academic Enhancement Fee

This purpose of this fee is to support academic activities that enhance and extend the traditional instructional activities of the classroom. The fee is 10% of in-state tuition.

Aebersold Student Recreation Center Fee

Slippery Rock University students voted to establish this fee beginning in the fall semester of 1994. The fee is used to fund the construction and operation of the Aebersold Student Recreation Center. The fee is $7.25 per credit hour up to a maximum of $87.00 per semester. This fee also provides access to the Russell Wright Fitness center located in the student recreation center.

General Service (Student Activities) Fee

This fee helps to cover the admission of each full-time student to athletic events, concerts, lectures, dramatic events and to support student organizations on campus. The fee is 5.25% of in-state tuition. Summer session students pay a General Service Fee of $1.25 per week for the summer sessions.

Health Services Fee

This fee of $104 per semester supports the student health program including unlimited office visits for illness, injury and preventative care, walk-in urgent care service, inpatient service, and a comprehensive campus-wide health education service. Part-time students are assessed a health fee of $8.65 per credit hour. The same rate applies to summer.

Miscellaneous Fees

Advance Deposit for Basic Fee

This $80 advance fee is assessed to each new and transfer student at the time they make a firm commitment to attend Slippery Rock University.

Advance Deposit for Residence Hall

This $130 advance deposit fee is assessed all students at the time they make a firm commitment to reside in a university-owned residence hall. When the deposit is received, accommodations are reserved in the student's name.

Alcohol Education Program Charge

Students who violate the university alcohol policy are charged either $45 or a $60 depending on the nature of the incident.

Application Fee - Physical Therapy Program
This $35 fee is to accompany the application for admission to the physical therapy program.

Application Fee – Undergraduate
This $25 fee is to accompany the application for admission to the physical therapy program.

Certification Fee
This $15 fee was established by and is submitted to the Pennsylvania Department of Education for processing teacher certification applications.

Credit by Exam Fee (Per Credit)
This $50 fee is assessed to students to take a university-developed examination in order to receive credit for a course without participating in the class.

Career Assessment
Students pay this $10 charge when they purchase a career assessment package containing three vocational interest inventories.

Career Placement Service Charge
A $150 annual charge is assessed persons other than prospective or enrolled students and alumni who desire to use the services of the career services office.

Graduation Fee
This $20 fee is assessed students to cover the costs of the diploma, leatherette presentation case, reception and other services related to commencement exercises. Not transferable or updateable.

Gynecological/Contraceptive Service Charge
This annual $75 fee is optional and provides for a supplemental service at the university health center to female students for pap smear, contraceptives and follow-up care.

Identification Card Charges
The orientation fee includes $15 for the student's initial identification card. The student is charged $15 for the first replacement card and $20 for each subsequent card.

Installment Payment Plan
A $25 processing fee assessed students who do not pay their charges in-full by the first billing due date and who choose to pay through the university's installment payment plan.

Late Drop/Add/Withdrawal
This $15 fee is assessed on students who drop, add, or withdraw from classes after the university's stated deadlines.

Late Payment/Bad Check Charge
A $15 charge assessed to students who do not pay fees and charges by the designated due date or who issue a check for payment which is returned to the university for insufficient funds.

Late Registration Fee
A $10 fee is assessed to students who register for a course after the designated registration period has ended. This fee is charged for each course added.

Library Overdue Book Fine
Students are assessed a overdue book fine of $0.05 per day for books due in 3 weeks and $0.10 per day for books due in 1 week.

Non-Credit Basic Fee
This is a variable fee that is assessed for non-credit coursework such as for workshops. The fee varies according to the length, content, or other feature of the experience.

Orientation Fee
All new degree seeking freshmen and transfer students are assessed a non-refundable $85 fee ($75 for orientation and $10 for the student's identification card) that is collected through the advance deposit. Attendance is mandatory for all new freshmen and transfer students.

Overnight Charge Per Campsite Per Night
The charge that assessed persons visiting the campus who prefer to bring campers/trailers for overnight accommodations is $5 for a non-electric setup and $7 for an electric setup.

Parents/Spouses of New Students
A $40 fee is assessed a student's parent or spouse for participation in the family orientation program in June. The fee includes four meals, materials and housing in a university residence hall. No reduced fee for partial participation is available

Parking Decal
A $10 charge is assessed students for automobile registration.

Parking Tickets
A $15 charge is assessed persons who park illegally on the university campus.

Pre-Professional Skills Test (PPST)
Students who enter an educational certification program are assessed a $25 fee to take the pre-professional basic skills test in reading, writing and mathematics.

Room Change Charge
This $25 fee is assessed to students for a student-initiated room change in residence hall after fourth week of class.

Transcript Fee

A $3 fee ($10 for same day service) is charged to prepare and mail each transcript. Every graduating student receives a complimentary copy of the transcript; each subsequent transcript charged at the established rate. An additional $5 ($12 for the same day service) is charged when documents are faxed.

Transient Guest Room Charge

Students or others who are guests at and visiting the university may stay in a university residence hall. A $22.75 per night fee is charged for a double occupancy room and $25.75 for a single occupancy room.

Room and Board Fees

Board Fees

Students who reside in a university-owned residence hall are required to take a meal or board plan through the university food services. Students who live in off-campus housing also may purchase a board plan and eat in the university dining halls. The dining halls are available to students only when the university is officially in session.

Five meal or board plans are available. Students residing in a university-owned residence hall must choose either Plan A (Variable-19 meals) or Plan B (Variable-14 meals) or Plan C (Variable-10 meals). Off-campus/commuter students may contract for any of the five available board plans. The per semester fees for Plan A, B and C are:

- Plan A Variable-19 meal plan $1052.00
- Plan B Variable-14 meal plan $1000.00
- Plan C Variable-10 Meal Plan $924.00

Room Fees

All freshmen are required to live on campus. Freshmen students who live with their parents or legal guardian and live within a reasonable commuting distance may request release from this requirement in order to commute from home. All written requests for this exception will be reviewed by the Residence Life Housing Appeals Board.

Freshmen and returning students who live in university housing, must sign a Residence Hall Agreement or contract that is binding on the student (or his/her guardian if the student is under 18 years of age) for the entire academic year. The Residence Hall Agreement must be accompanied by a required $130.00 advance deposit. The advance deposit is credited to the spring semester room fee. The advance deposit must be paid by a check or money order made payable to Slippery Rock University (cash cannot be accepted), and the student's name and social security number is to be printed on the check or money order.

- A student's written notice of his/her intention to withdraw from Slippery Rock University or his/her desire to be released from the Residence Hall Agreement must be received by the housing office prior to the last day of final exams week in May for a $75.00 refund.
- A student's notification to withdraw from the university that is received after the last day of final examination week in May results in the students' forfeiture of the entire $130.00 advance deposit.
- A student's request for release from the Residence Hall Agreement for the forthcoming academic year that is received after the last day of classes in May cannot be guaranteed. Any request for release from the residence hall agreement must be submitted in writing to the housing office; a release request form can be obtained from the housing office. The Housing Appeals Board determines whether the release is granted and notifies the student of its decision.
- Students who paid the $130.00 advance deposit to reserve a room for the forthcoming academic year and who are academically suspended at the end of the spring semester or summer session will receive a refund of the $130.00 deposit.
- Students who withdraw, are released, or are academically suspended at the end of the fall semester are not entitled to a refund of the $130.00 deposit.

The Residence Hall room fees per semester are:

- Double room rate $1,219.00
- Super double room rate $1,462.00
- Single room rate $1,826.00

*Air-Conditioned Halls (Bard & Patterson)

Double room rate	$1,294.00
Single room rate	$1,901.00
Super double room rate	$1,537.00

R.O.C.K. Apartment Complex

Upper class students can reside at the ROCK apartment complex. A lottery type system that is based on a student's credit hours is used to select the students who will reside in the apartments. A $230.00 non-refundable advance deposit fee per student is required. The per semester fee is $1,948.00; the fee includes electricity, gas, and water. Refunds for students withdrawing during the semester are prorated according to the university's refund policy. Any moneys due the university are deducted before a refund is processed. Students who reside in the ROCK apartments may choose to purchase a university meal plan, but are not required to do so.

Privately Owned Residence Halls

A listing of privately owned residence halls and their fees is available from the Office of House and Residence Education.

Student Community Building Fee

Mandated by state law, this fee is required to retire the general obligation bonds for the University Union building. The amount paid is determined by the number of credits taken and is pro-rated as follows: 1-6 credits, $2.50 per semester; 7-9 credits, $5 per semester; 10 or more credits, $10 per semester. The Summer Session fee is 1-3 weeks, $1; 4-6 weeks, $2.

Technology Fee

This fee was established by the Board of Governors of the State System of Higher Education. The fee is $25.00 for part time PA resident students or $50.00 for full time PA state resident students. The fee is $35.00 for part time out of Non resident students or $70.00 for full time Non resident students.

Tuition/Fee Regulation **Policy**

Cancelled Course or Workshop

A refund of all fees is paid for a cancelled course or workshop.

Installment Payment Plan

The Slippery Rock University Installment Payment Plan provides students and/or their parents or guardians the opportunity to complete payment of financial obligations through a four-installment program. The fall and spring semester billing packages that are sent in July and December, respectively, may be divided into four installments each. The fall semester installment payments are due in August, September, October and November. The spring installment payments are due in January, February, March and April. To enroll in the Installment Payment Plan, simply pay the Plan B amount at the bottom of the billing statement. An additional fee of $25 per semester is assessed to cover the administrative costs of operating the Installment Payment Plan. Although interest is not charged against the outstanding balance, a $15 late payment fee is assessed if a payment arrives after the due date.

Payment of Fees

By accepting admission to the university the student agrees to pay the fees and charges assessed by the university. Prior to the beginning of each semester a notice requesting the payment of fees is mailed to students who have pre-registered. Invoices should be paid in full or by using the installment payment plan by the due date on the statement. Failure to comply with the requirement will result in late payment and installment payment plan fees. No student shall enroll in classes, graduate from the university, or receive transcripts of coursework taken while at the university until all fees have been paid. Unpaid bills may be referred to the PA Attorney General's office for collection. Collection agencies may be utilized. The student is responsible for any collection costs incurred, in addition to the original amount owed.

Refunds

The refund policy applies to all students (undergraduate, graduate, credit, and non-credit) and all terms (regular semesters, summer school, mini-courses, and workshops). It applies only to fees paid directly to the university. It does not apply to fees paid to others, such as off-campus housing and insurance.

Scheduled Course or Workshop is Changed by the University.

If the student elects not to attend the university, a full refund of all fees paid for the course or workshop that has been changed will be made.

Students Refused Readmission for Academic Reasons.

Student will receive a refund of all fees paid for the new semester or term.

Withdrawal from the University on or Before the First Day of Class of a Semester, Summer Sessions or Workshop.
Academic Year Withdrawal Refund Policy

- Written notice. The student must notify the Office of Academic Records and Summer School in writing, and this notice must be received not later than the first class day.
- Withdrawal from the university means that the student is withdrawing from all courses for a semester or summer session. When the student withdraws from some courses but remains in the university, refund is computed as in OVERPAYMENT section at the end of this policy.
- All fees paid for this semester, summer session or workshop will be refunded except the application fee.

Withdrawal from the University After the First Day of Class of a Semester, Summer Session or Workshop. The student must complete the official withdrawal procedure.

- The basic fee, general service fee, academic enhancement fee, recreation complex fee, and health service fee will be refunded based on the percentage scale of refund. Residence hall and dining hall charges will be refunded based on the number of weeks attended. In addition, students will forfeit the $130 room deposit and will be charged a $25 administrative dining hall fee.

- The application fee, community building fee, late payment fee, installment payment plan fee, and advanced tuition deposit will not be refunded.
- Regular Semester:
  - Voluntary withdrawal. The university will refund the following percentage of all fees in section A above, when the termination is during the weeks shown below for all students.

Weeks	
1 week	90%
2 weeks	80%
3 weeks	70%
4 weeks	60%
5 weeks	50%

No refund after week 5

This refund policy is in compliance with the policy mandated by the Board of Governors of the State System of Higher Education.

- Students withdrawing from the university for any reason will forfeit $55.00 of their residence hall deposit for the upcoming academic year if the withdrawal occurs before the last Friday in May, if the withdrawal occurs after the last Friday in May, the $130.00 deposit will be forfeited.

Return of Title IV funds (Federal Aid/Loans). The federal government requires Slippery Rock University to return financial aid money to the Title IV programs for any student withdrawing through 60 percent of the semester. Student withdrawing with Title IV aid may owe the university a balance once the aid is returned. Title IV aid must be returned to the Title IV program before any refund can be returned to a student.

Summer Sessions Withdrawal/Refund Policy

1. Withdrawal on or before the First Day of class: A student may obtain a full refund if the registration is officially cancelled through the Office of Academic Records and Summer School on or before the first day of class for the summer session.
2. *Withdrawal on or after the First Day of Class:*
   Voluntary withdrawal: Students withdrawing after the first day of class will have refunds processed based on the following:

   Withdrawal after the first day of class through 7 percent of the enrollment period will be refunded 90 percent of the institutional charges.
   Withdrawal after 7 percent of the enrollment period for which the student has been charged through 13 percent of the enrollment period will be refunded 80 percent of institutional charges.

Withdrawal after 13 percent of the enrollment period for which the student has been charged through 20 percent of the enrollment period will be refunded 70 percent of institutional charges.
Withdrawal after 20 percent of the enrollment period for which the student has been charged through 27 percent of the enrollment period will be refunded 60 percent of institutional charges.
Withdrawal after 27 percent of the enrollment period for which the student has been charged through 33 percent of the enrollment period will be refunded 50 percent of institutional charges.
There will be no refund for students withdrawing after 33 percent of the enrollment period has passed.

Dates, which apply, to these percentages may be obtained by calling the Office of Student Accounts and/or they will be printed on the back of each summer billing statement. Each summer session will be treated as a separate enrollment period for refund calculation purposes.

After the cut-off, no basic tuition and fees will be refunded. Refund of Residence Hall rent and meal Plan fee will be based on the dates and percentages listed above. The Student Community Building Fee is not refundable after the first day of class.

Charges for withdrawal from an Internship will be calculated on an individual basis. The internship start date, scheduled length of the internship and the date of withdrawal from the internship will determine the charge/refund.

Return of Title IV funds (Federal Aid/Loans). The federal government requires Slippery Rock University to return financial aid money to the Title IV programs for any student withdrawing through 60 percent of the semester. Student withdrawing with Title IV aid may owe the university a balance once the aid is returned. Title IV aid must be returned to the Title IV program before any refund can be returned to a student.

Overpayment of Account with Student Remaining in University: When the student's account is overpaid for one of the following reasons, the unearned fees will be refunded.

- Reduction of the number of credit hours when the student is paying on an hourly basis:
  - Regular Semesters - The percentage of tuition refunded for the credits dropped will be as stated under "Regular Semester Voluntary Withdrawals" in the section of this policy concerning withdrawals from the university after the opening date of regular semester.

- Summer Sessions – The percentage of tuition refunded for credits dropped will be as stated under Summer Sessions Withdrawal Refund Policy.

- Approved withdrawal from the residence hall and/or dining hall (applicable only when withdrawal is preapproved by the appropriate vice president or designee). The student will be charged the percentage indicated under Regular Semester Voluntary Withdrawals.

Suspension or Dismissal from University other than for Reasons of Academic Standing. No refund will be made to any such student; all money paid will be forfeited.

- Residency Status Policy

  Students who enter Slippery Rock University with an out-of-state address will generally continue to be classified as non-Pennsylvania residence for tuition programs during their years at the university. An exception is made if the student's parents establish a legal residence in Pennsylvania. Establishing a Pennsylvania mailing address and obtaining a certificate of registration for voting purposes, however, does not change a student's out-of-state status for tuition purposes as long as their parents reside out-of-state. Neither does establishing a residence with a relative who is a Pennsylvania resident change a student's out-of-state status unless the relative legally adopts the student. In order to qualify for Pennsylvania resident status for purposes of determining tuition, a student must meet State System of Higher Education criteria, as summarized below:

  - Continuous residence in Pennsylvania for a period of 12 months prior to registration as a student at an institution of higher education in Pennsylvania.
  - U.S. citizenship or formal declaration of intent to become a citizen or admission to the United States on an immigrant visa. A tourist or student visa, that is a non-immigrant visa, is not proof of intent of residence.
  - Pennsylvania residency by the parents or guardians of students who are minors. The age of majority in Pennsylvania for establishing an independent residence for tuition purposes is 22; however, a minor may prove financial emancipation and independence through clear and convincing evidence.

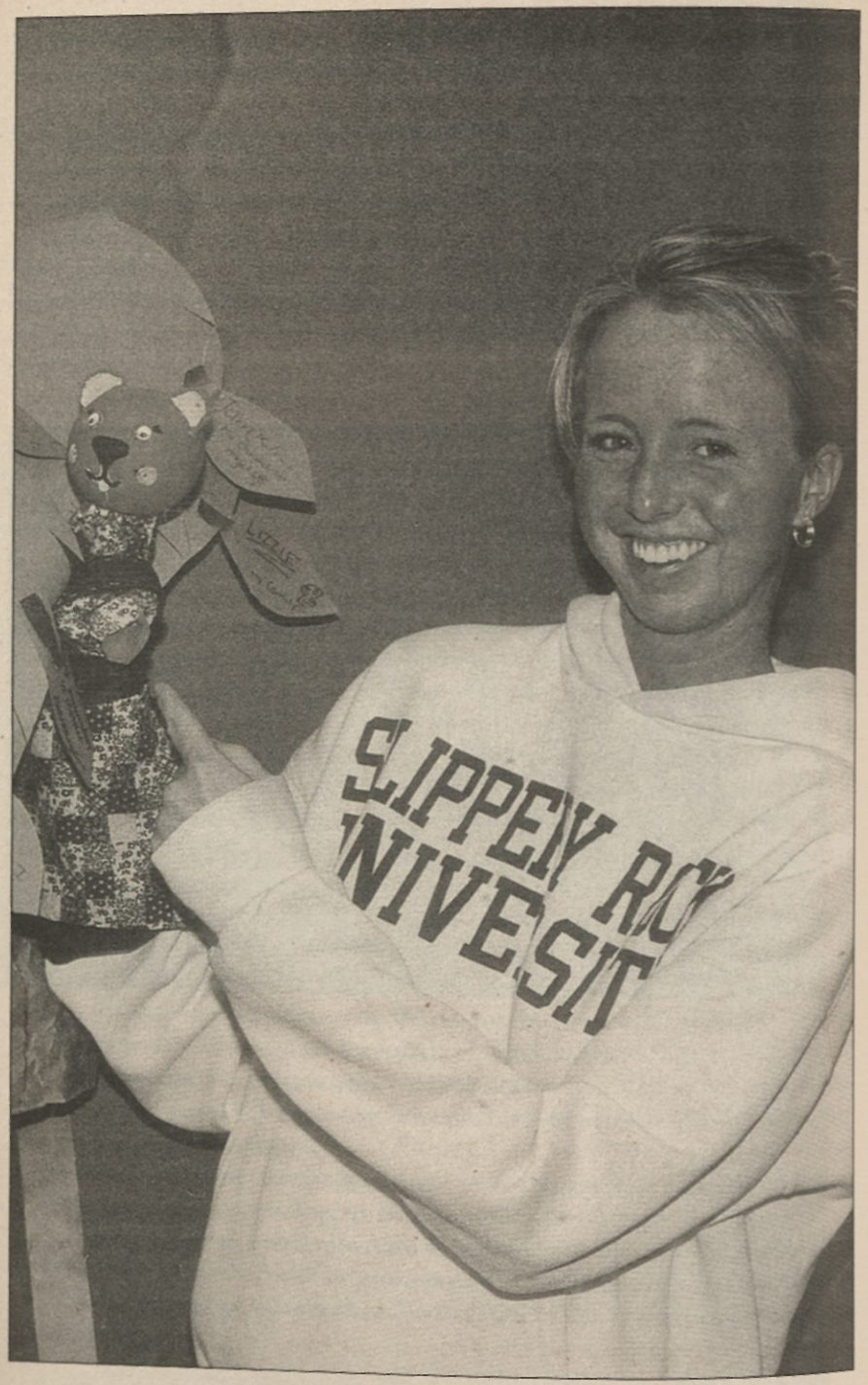
  United States government employees or members of the United States armed forces who were residing in Pennsylvania immediately prior to entering government service and who have continuously maintained Pennsylvania as their legal residence shall be presumed to be a Pennsylvania resident. Others in military service stationed in Pennsylvania shall be deemed Pennsylvania residents.

Students receiving a scholarship or grant dependent on place of residence from a state other than Pennsylvania will not be considered a Pennsylvania resident.

Students who change their residence from Pennsylvania to another state are required to give prompt written notice to the university. The university may reclassify students in the event it believes they are no longer a Pennsylvania resident.

Students may challenge their residency classification by filing a form "Residency Classification Data Collection Form" available in the Office of Student Accounts in Room 103, Old Main.





ACADEMIC **Procedures and 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 Degree Audit Report (DARS) and confer with their academic advisors, the appropriate academic department, and the Office of Academic Records regarding current academic 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 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 Advisors

Academic advisors 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 advisors during the students' sophomore year. Secondary education students are assigned academic advisors by the department of secondary education/foundations of education in consultation with the content area department. Exploratory program students are assigned academic advisors by the Academic Advisement Center.

It is the academic advisors' responsibility to aid their advisees with their academic and educational plans. The advisors are not responsible for making certain that their advisees major and liberal studies 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.

Academic Dismissal

Academic dismissal results with the third academic suspension. Students who have been academically dismissed may appeal to the Academic Dismissal Review Board after sitting out for one calendar year.

Academic Integrity

The value of a Slippery Rock University education is determined by the quality and character of Slippery Rock University students and graduates. Therefore, students and student organizations are expected to uphold academic integrity.

- All academic work, including, but not limited to, papers, computer programs, assignments, and tests, must consist of the students' own work.
- Students are expected to learn and practice proper techniques for accurately citing resource material.
- Students are expected to be honest in all academic work, refraining from all forms of cheating.
- Students are expected to function as students, including, but no limited to, attending class regularly and completing all assignments and examinations.

Students charged with academic dishonesty will deal with either the coordinator of student standards or the course instructor or both. If the instructor handles the matter, the instructor is to inform the departmental chairperson of the problem and its resolution. The department chairperson is to forward the information to the appropriate dean who will then inform the provost and vice president for academic affairs. If the instructor decides to refer the matter to the Office of Student Standards, the coordinator of student standards will begin institutional action through an investigation into the matter. If there is sufficient cause, students will be notified of the charges brought against them under the Code of Conduct. The student may then face judicial action, in addition to the instructor's action, which may include a university hearing board that could lead to suspension or dismissal from the university.

Academic dishonesty may take many forms. Examples of academic dishonesty include, but are not limited to, the following:

- buying, selling, or trading papers, projects, or other assignments;
- using or attempting to use any unauthorized book, notes, or assistance from any person during a quiz or examination;
- plagiarizing and/or submitting the work of another as your own;

- fabricating information or citations;
- facilitating dishonest acts of others pertaining to academic work
- possessing unauthorized examinations;
- submitting, without instructor permission, work previously used;
- tampering with the academic work of another person;
- ghosting-taking a quiz or exam in place of a student or having any person take a quiz or exam in your place;
- any attempt to falsify an assigned grade or an examination, quiz, report, or program or in a grade book, document, or other record;
- any attempt, or actual, computer program theft; illegal use of software; inappropriate use of the Internet, such as, but not limited to, illegal or unauthorized transmissions; or improper access to any computer system or account;
- any attempt, or actual, collusion willfully giving or receiving unauthorized or unacknowledged assistance on any assignment (both parties to the collusion are considered responsible.)
- forging a faculty member's or administrator's signature on any card, form or document.

Academic Probation

If the quality point average (QPA) for all courses attempted at Slippery Rock University is less than a 2.000 (C), the student will be placed on academic probation. Students on academic probation may continue at the university under conditions developed by the appropriate academic dean or the Director of Retention services and agreed to by the students. Students will also be placed on academic probation whenever they earn less than a 1.000 semester QPA and have a cumulative QPA of 2.000 or higher.

Academic Renewal

Students occasionally perform at an academic level that makes them ineligible to continue their studies, and they withdraw or are suspended from school. Subsequently, some want to resume their college work but find their previous academic record an obstacle.

Academic Renewal provides an opportunity for persons in this situation to apply for a fresh undergraduate start at Slippery Rock University on the basis that their entire prior undergraduate record be disregarded and they begin their college study again with no credits attempted or earned and no quality points earned. No transfer credits taken at any time will be used towards the completion of an SRU degree. Academic Renewal may be awarded to a student only once and is applicable only to students enrolled at Slippery Rock University.

Prior to applying for admission on this basis, at least five years must have elapsed since the end of the semester in which the applicant was last in attendance

for credit at any college or university. The applicant must present evidence that the conditions which caused the poor academic record have changed so there is now a reasonable expectation that the applicant will perform satisfactorily if admitted.

Upon approval of the petition by the Director of Retention Services or dean of the college in which the student was enrolled prior to their withdrawal or suspension, the student will be admitted as a beginning freshman. Students showing competency in any area may be allowed advanced standing (without credit) or a waiver of requirements just as any entry-level student.

It should be noted that the prior record remains a part of the student's overall academic record, but none of it carries forward as part of a degree program. The date of the Academic Renewal will be entered on the student's transcript along with a statement prohibiting the use of previously earned credits and quality points in meeting degree requirements, computing grade point average, graduation status, or academic dismissal. Students are cautioned that graduate and professional schools often compute a grade point average over all hours attempted when considering applicants for admission.

Application forms are available in the Office of Retention Services or the dean's office of each college within the university. The deadline for applying for academic renewal is the last day that the student may receive a grade of "W" is at the end of the third week of the semester following the student's return to SRU.

Academic Suspension

Academic suspension will occur as a result of any of the following conditions:

1. Earning a QPA of less than 1.000 for any semester after the first semester and having a cumulative QPA of less than 2.000.
2. Earning 90 or more semester credits (senior standing) and having a cumulative QPA less than 2.000.
3. If the cumulative quality point average is less than 2.000 for three consecutive semesters.
4. The following table outlines other conditions under which a student will be subject to academic suspension:

Number of semesters with cumulative QPA less than 2.000	*If quality point deficiency is as below, then suspension results*
1	24 or more
2	12 or more
3	6 or more
4	3 or more
5, 6, 7, 8	1 or more

Ordinarily, a first suspension is for a period of one semester; a second suspension is for a period of two semesters. All three summer sessions are considered as one semester for purposes of suspension. Students under suspension are not permitted to register for summer classes at Slippery Rock University.

Suspension may result whenever any student incurs grade deficiencies as stipulated above at the conclusion of any semester or summer session. Students who desire to take courses at another institution while on academic suspension should see *Transient Student Status* in this section.

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 and by authorized activities for the benefit of the university. Arrangements to make up work because of class absences are the students' responsibility.

Auditing Courses

Students desiring to audit courses (no credit awarded) must receive approval of their advisor. 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, Director of Academic Records and Summer School, academic departments or to 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.

Classification of Students

Undergraduate students are classified according to the number of semester credits completed.

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.

Continuous Registration

The following basic competency courses within the liberal studies program are subject to the university's continuous registration policy:

- Connecting Reading and Writing
- College Writing I
- College Writing II
- Public Speaking
- Developmental Mathematics
- Beginning Algebra

These courses will be graded as A, B, C, or NC (no credit) the first time taken. 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. When these basic competency courses are repeated, they will be graded as A, B, C, or F.

Once classes begin, students are not permitted to drop or withdraw from one of the basic competency courses listed above.

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 quality 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 level courses may not be taken for undergraduate credit.

Credit by Examination

Under certain conditions it is possible for students to take credit courses by examination in a subject field. A grade of "P" or "NC" must be awarded but only passing grades will be recorded on students' records for coursework taken through Credit by Examination. Students may take Credit by Examination only once per course. Further information is available in the offices of the deans and in the Office of Academic Records and Summer School. See "Testing for Advanced Placement" in this catalog.

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 free elective and will also have the university's basic competency physical education/dance activity requirement (two credits) waived.

Students may receive credit for military schooling, regardless of the length of active or inactive duty, by submitting a DD214, 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 Director of Academic Records and Summer School, Room 107, Old Main.

Degree Requirements

Application for Graduation

Students must make formal application to the Office of Academic Records and Summer School by the end of the third week of the semester/term in which they expect to graduate. A diploma fee is payable at that time. Students who are eligible for a 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 clearance form. The application fee for graduation is nontransferable and cannot be updated to another semester if the student fails to graduate, but the certification fee may be refunded.

Students who meet all graduation requirements in a given term but fail to apply for graduation and/or pay their graduation fee 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' advisors.

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.

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.

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 15 credits must be completed to earn a minor. The majority of programs require minimum cumulative a major quality point averages of 2.000; some programs require a higher average. This information is available from the department advisor 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 enrichment section of the cultural diversity/global perspective block of the liberal studies program.

Residency

To qualify for graduation, all students must complete their last 36 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 4 credits within a minor must be earned in residence at Slippery Rock University. Students should check with their academic advisor to determine the residency requirement for their specific academic program.

Second Baccalaureate Degree

If students complete, simultaneously, the requirements of two-degree programs, only one degree will be conferred at commencement. The university transcript will record, both majors but only one 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 36 credits at SRU after the first baccalaureate degree,
- meeting departmental requirements for the degree in respect to the required credits and courses for a major in that department, and
- meeting degree requirements in respect to courses required for the requested degree.

Latin Honors at graduation will not be awarded to second-degree candidates, nor are post-baccalaureate students eligible for the dean's list.

Drop, Add, Withdrawal

Full semester courses may not be added after the first week that the course has met. Courses dropped during the first week of the semester will not be recorded on the students' permanent records unless they withdraw from all their classes, in which case grades of "W" will be awarded. Students may withdraw from 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 taking basic competency courses, with the exception of physical education/dance activity courses in the liberal studies program, may not drop or withdraw once the semester has started.

Students desiring to add closed sections will have to secure the signatures of the professors of the closed sections.

Students may use yellow drop/add cards anytime after they have registered until the end of the first week of the semester. After the first week of the semester, students must use blue withdrawal cards, which require the signatures of the professors of the courses and the students' advisors.

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 approval and will be charged $15 for each transaction.

Final Examinations

At the end of each semester, all final examinations are 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 & Summer School and at the university's Student Consumer website: **www.sru.edu/pages/1257.asp**

Grade Information

Procedure for Filing Grade Appeal

1. No later than two calendar weeks into the term (term = fall or spring semester, NOT summer) following grade receipt, the student may appeal in writing to the course instructor, sending a copy of the appeal to the department chairperson (or substitute). The chairperson is to confirm that the instructor is aware of the appeal letter and is to inquire as to the instructor's planned response.
2. If the instructor decides that the grade is correct, he/she must respond in writing to the student within twenty (20) business days of receipt of the student's appeal letter. Failure to respond within allotted time shall move process to step 3 below.
3. If the student wishes to appeal further, he/she must appeal in writing to the department chairperson (or substitute). This appeal must be within ten (10) business days of receiving the instructor's response. A copy of this appeal must be forwarded to the dean of the college in which the course was taught.
4. The department chairperson (or substitute) must respond in writing to the student within ten (10) business days of receiving the student's appeal. His/her response should be copied to the dean.

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.

If the matter is not resolved at the level of department chairperson, consideration may then be given to referring it to a Grade Appeal Board.

Appeals will be referred to a Grade Appeal Board only upon the recommendation of both the department chairperson and the college dean. A Grade Appeal Board will be utilized only in extraordinary circumstances.

Composition of Grade Appeal Board

Three (3) faculty recommended by APSCUF. One from the academic department in which the course is taught. Not the instructor.

Two (2) managers selected by the provost. One to be the dean of the college in which the course was taught.

One (1) student recommended by Student Government Association. A senior major in 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 within the parameters above.

Grade Appeal Board Procedures

Each Grade Appeal Board is to determine its procedures for hearing the grade appeal. Normally, both the student and the instructor will be given an opportunity to state his/her case before the board.

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 president 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. 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

Students' midterm grades are only available on the university's ROCKTALK telephone and web-based systems. Final grades are mailed to students at the end of every semester. During the summer, grades are only mailed once, after the conclusion of Summer Session II.

In accordance with the Family Educational Rights and Privacy Act (FERPA) grades will not be released to a third party (including parents) without the written permission of the students.

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 quality 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.

Pass-No Credit Grades

Students 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, intensive writing, 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 QPA. 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.

Quality Point Average

Quality 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 quality points are calculated by adding the quality points earned in each course. The quality point average (QPA) is computed by dividing the total quality 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 quality 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 QPA may be directed to the student's academic adviser, the Advisement Center or the Office of Academic Records and Summer School.

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 QPA 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 QPA 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.

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 and **have not attended** another college since their departure may resume studies at Slippery Rock University by applying for readmission to the dean in whose college they previously studied, or the Director of Retention Services (even if they will change their major after entering the university). This must be done at least one month prior to the beginning of the semester/term in which they wish to enter. Students who **have attended** another college or university after leaving SRU without transient or visiting student clearance must reapply for admission as a transfer student through the Office of Admissions. Students who have been on academic suspension must be readmitted by the dean who suspended them or the Director of Retention Services, and may have to meet specific conditions before being readmitted. Credit earned at another college or university by a student while on academic suspension or probation may not be eligible for transfer to Slippery Rock University. Students must obtain approval from their department and 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 a student's SRU QPA. 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 Policy

(Family Educational Rights and Privacy Act, PL 93-380; and "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 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 rights 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(s) 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 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 that 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 responsibilities.

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) 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, 107 Old Main. Questions concerning FERPA should be referred to the director of academic records and summer school.

Repeat of Courses

Students may attempt to improve their quality point average by repeating courses. The most recent grade earned is used in calculating the QPA 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 another 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.

Semester Credit Load

The number of credits a student may carry is determined by the cumulative quality point average as follows:

- If the cumulative QPA 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 QPA is 2.000 to 2.499, a maximum load of 18 credits is permitted.
- If the cumulative QPA is 2.500 or above, a maximum of 21 credits is permitted. An additional fee is charged for each credit in excess of 18.

Senior Citizens

Senior citizens (typically persons 62 or older, who are receiving social security or equivalent benefits) may audit courses at no cost at Slippery Rock University on a space available basis. Senior citizens must supply provide proof of retirement benefits, name, address, and social security number to the Office of Academic Records and Summer School in order to complete registration. 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.

Summer Sessions

Summer sessions at Slippery Rock University are scheduled over a eleven-week period as follow: Pre-session (two and one-half weeks), Session I (four weeks) and Session II (four weeks). Information on the summer sessions is made available through a special summer bulletin, which may be obtained from the Office of Academic Records and Summer School.

Testing for Advanced Placement

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 36 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 yield college credit. 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 advisor, 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.colleboard.com/clep**

- The university also awards credit for a limited number of ACT's Proficiency Exam Program (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.

Transcripts

Students may obtain official transcripts of their academic records from the Office of Academic Records and Summer School by written request. Each copy costs $3.00 and written requests should include a check or money order made payable to Slippery Rock University. Students requesting that a transcript be faxed are assessed a $5.00 faxed transcript fee. Transcripts are typically processed in 24-48 hours. Students requesting "same day" service will be charged $10 per transcript ($12 per transcript if faxed). A complimentary copy of the transcript is sent to all students upon graduation. Transcripts are not released to students who have outstanding financial obligations to the university. The University only issues OFFICIAL transcripts. Unofficial transcripts do not exist.

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 affairs.

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 advisor, 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 director of academic records and summer school 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 a student's SRU cumulative QPA. Copies of the transient student form are available in the departmental chairpersons' offices or the Office of Academic Records and Summer School. Transient students may not take correspondence courses and credit earned by examination. Other policies governing transient status are available from the Office of Academic Records and Summer School.

Upper Division Course Work

All degrees require the completion of a minimum of 48 credit hours of upper division (typically 300 level and above) course work. Thirty-nine of the 48 credits must be at the 300 level or higher, the additional 9 credits can 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 (15 hours minimum) must consist of upper division course work.

Students with fewer than 45 credits (Sophomore II) must have the permission of the instructor to enroll in 300 and 400 level courses.

Visiting Students

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' QPA. A special form, with a list of program requirements, is available in the Office of Academic Records and Summer School and must be approved by the students' advisor or chairperson, academic dean, and the director of academic records and summer school.

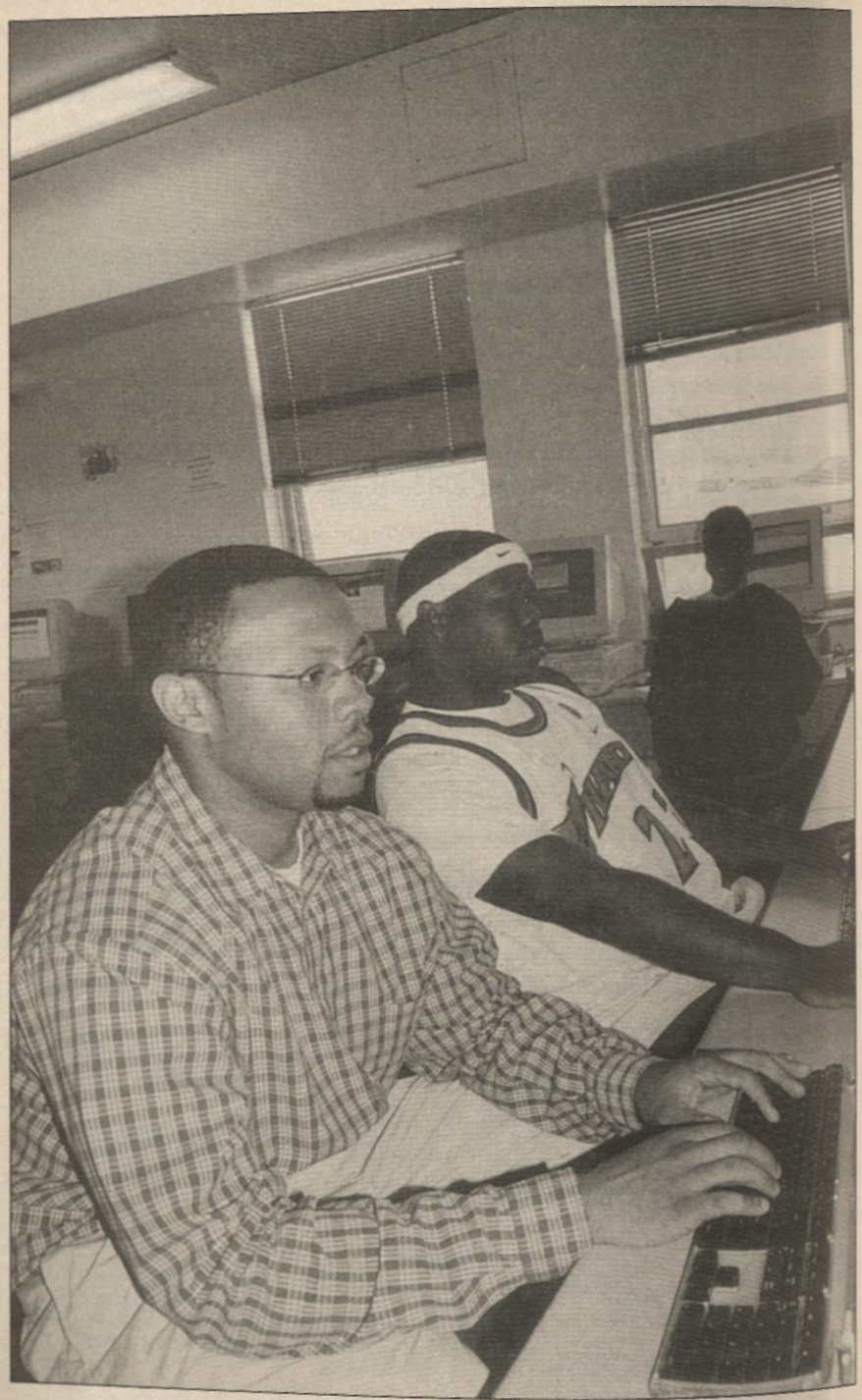
Withdrawal from the University

Students who withdraw from the university must either complete an official withdrawal form obtainable at the Office of Academic Records and Summer School, or notify the Director of Academic Records and Summer School 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 Academic Records and Summer School receives 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.



UNIVERSITY **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.

How Long Will It Take?

At SRU, the undergraduate program of study requires a minimum of 120 semester hours of course credit hours to receive a bachelor 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 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.
- Some majors require more than 120 credit hours for a bachelor's degree.
- Post-baccalaureate students must complete at least 36 credit hours at SRU to earn a baccalaureate degree.

What Degree Will I Receive?

The bachelor degree awarded depends on a number of factors particularly the major selected. The undergraduate degrees and majors offered at SRU include:

Academic Degrees and Programs

College of Business, Information, and Social Sciences

School/Department	*Program*	*Degree/Certification*
School of Business	Accounting	BSBA, Minor Certificate
	Business Administration, for non-business majors	Minor
	Economics	BS, BSBA, Minor
	Finance	BSBA, Minor
	Personal Financial Planning	Certificate

College of Business, Information, and Social Sciences (continued)

School/Department	*Program*	*Degree/Certification*
	International Business	BSBA, Minor
	Business Administration, for non-business majors	Minor
	Management	BSBA, Minor
	Marketing	BSBA, Minor
	Human Resource Management	BSBA, Minor
Communication	Communication	BA, Minor
	Communication	BS
	Public Relations	Track
	Journalism	Track
	Emerging Technologies and Multimedia	Track
Computer Science	Computer Science	BS, Minor
	Information Systems	BS, Minor
	Information Technology	BS, Minor
Government & Public Affairs	Political Science	BA, Minor
	American Politics	Minor
	International & Comparative Politics	Minor
	International Affairs	Minor
	Public Administration	Minor
	Community Service and Service-Learning	Minor
	Public Administration	MPA

College of Business, Information, and Social Sciences (continued)

School/Department	*Program*	*Degree/Certification*
Sociology, Anthropology, & Social Work	Anthropology	BA, Minor
	Sociology/Anthropology:	
	Social Work	BS
	Sociology	BA
	Sociology (General)	Track, Minor
	Applied Sociology	Track
	Criminology	Track, Minor

College of Education

School/Department	*Program*	*Degree/Certification*
Counseling & Educational Psychology	Counseling Psychology	MA
	Counseling	MA
	Addiction Counseling	Track
	Child Counseling	Track
	Gerontological Counseling	Track
	Principalship Preparation	TC
	Student Personnel	MA
	Elementary Guidance and Counseling	MEd, TC
	Secondary Guidance and Counseling	MEd, TC
Secondary Education	Secondary Education:	BSEd, TC
	English	
	French	
	Citizenship-History	
	Spanish	

College of Education (continued)

School/Department	Program	Degree/Certification
	Secondary Education:	MEd, TC
	Biology	
	Chemistry	
	Geology (state certification is in Earth and Space Science)	
	Mathematics	
	Physics	
Elementary Education/ Early Childhood	Elementary Education	BSEd, TC
	Early Childhood	TC
	Spanish	Minor
	Elementary Education	MEd
	Elementary Education, General	Track
	Elementary Mathematics & Science	Track
	Reading	TC, Track
	Elementary Education (with IUP)	EdD
Physical Education & Sport Management	Health & Physical Education	BSEd, TC
	Aquatics	Minor
	Coaching	Minor
	Sport Management	BS, Minor
	Physical Education	MEd, MS
	Athletics, Sport, & Physical Education	MEd, MS
	Sport Management	MS
Special Education	Special Education, Mentally and/or Physically Handicapped	BSEd, TC
	Special Education, Community Programs for Americans with Disabilities	BS
	Exceptionalities	Minor

College of Education (continued)

School/Department	Program	Degree/Certification
	Special Education	MEd
	Master Teacher	Track
	Early Childhood	Track, TC
	Mentally & Physically Handicapped	Track, TC
	Social Restoration	Track, TC
	Supervision	Track, TC

College of Health, Environment and Science

School/Department	Program	Degree/Certification
Allied Health	Health Education	BSEd, TC
	Health Science	BS
	Community Health	Track
	Health Services Administration	Track
	School Health	Track
	Safety & Environmental Management	BS
	Gerontology	
	Undergraduate	Minor or Certificate
	Graduate	Certificate
Biology	Biology	BA, BS, Minor
	Biology: Secondary Education	MEd, TC
	Cytotechnology	BS
	Medical Technology	BS
	Marine Science	Minor
Chemistry & Physics	Chemistry	BA, Minor
	Chemistry	BS
	Biochemistry	Track
	Environmental	Track
	Non-Specialized	Track
	Chemistry: Secondary Education	MEd, TC
	Physics	BA, BS, Minor
	Pre-Engineering	
	Physics: Secondary Education	MEd, TC

College of Health, Environment and Science (continued)

School/Department	*Program*	*Degree/Certification*
Exercise & Rehabilitative Sciences	Exercise Science	BS
	Exercise and Wellness Promotion	MS
	Athletic Training	BSAT
	Adapted Physical Activity and and Rehabilitation	Minor
Geography, Geology, & The Environment	Geography:	
	Liberal Arts Geography	BA, Minor
	Applied Geographic Technology	BS
	Geographic Info Technology	Minor
	Geology:	BS, Minor
	Environmental Geoscience	BA
	Meteorology	Minor
	Earth and Space Science: Secondary Education	MEd, TC
	The Environment:	
	Environmental Science	BS, Minor
	Environmental Studies	BS
Mathematics	Mathematics	BA, BS, Minor
	Mathematics: Secondary Education	MEd, TC
	Statistics	Minor
	Elementary School Math	Minor or Certificate for PB
	Middle School Math	Minor or Certificate for PB
Nursing	Nursing	BSN
	Nursing	MSN
	School Nursing	TC
	Case Management	Certificate

College of Health, Environment and Science (continued)

School/Department	*Program*	*Degree/Certification*
Parks & Recreation/ Environmental Education	Environmental Education	BSEd, TC, MEd
	Parks and Recreation	BS
	Park and Resource Management	MS, Track
	Resort Recreation Management/Tourism	Track
	Therapeutic Recreation Services	Track
	Sustainable Systems	MS
	Agroecosystem Ecology	Track
	Built Environment and Energy Management Systems	Track
Physical Therapy	Physical Therapy	DPT
Psychology	Psychology	BA, BS, Minor

College of Humanities, Fine and Performing Arts

School/Department	*Program*	*Degree/Certification*
Art	Art	BA, BFA
	Art, General	Minor
	Art History	Minor
	Art for Elementary Ed Majors	Minor
Dance	Dance	BA, Minor
English	English: Literature	BA, Minor
	English: Secondary Education	BSEd, TC
	English: Writing	BS, Minor
	Professional Writing	Track
	Creative Writing	Track
	English	MA
	Professional Writing	Track
History	History	BA, Minor
	American History	Minor
	European History	Minor
	Non-Western History	Minor
	History: Secondary Education	BSEd, TC
	History	MA

College of Humanities, Fine and Performing Arts (continued)

School/Department	*Program*	*Degree/Certification*
Modern Languages & Cultures	French	BA, Minor
	Secondary Education	BSEd, TC
	International Business	Track
	Spanish	BA, Minor
	Elementary Education	Minor
	International Business	Track
	Secondary Education	BSEd, TC
	Russian	Minor
Music	Music	BA, BM, Minor
	Music Education	BSMusEd
	Music Therapy	BS
Philosophy	Philosophy	
	Career-related	BA, Minor, Track
	Liberal Arts	Track
	Professional	Track
	Religious Studies	Certificate of Achievement
Theatre	Theatre	BA, Minor
	Acting	Track
	Design/Technology	Track

Interdisciplinary Programs

School/Department	*Program*	*Degree/Certification*
Dean, College of Business, Information & Social Sciences	Applied Science	BS
Dean, College of Fine & Performing Arts	Women's Studies	Minor or Certificate
History	East Asian Studies	Minor
Nursing	Health Care Informatics	Minor or Certificate
Allied Health		
Computer Science		
Military Science	Leadership	Minor
	Military History	Minor

Choosing an **Academic Program**

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**

Approximately one-half of a student's courses will be credited toward completing liberal studies requirements. The liberal studies program is designed to provide students with the breadth of knowledge expected of an educated person in our society. These courses compliment the depth of specialty acquired in a student's major. While completing the liberal studies program, students are given the opportunity to explore different ideas and to gain appreciation for several ways of knowing. Students develop the intellectual insights and skills that will enable a lifetime of learning.

The program contains seven 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. Lastly, co-curricular "Supporting Experiences," are identified. These activities and programs available to all students and encompass working on student publications, belonging to honorary societies or working with various special on-campus special interest groups. These activities show that the university experience is not and ought not be contained wholly in the classroom.

Goal I: Basic Competencies

The educated person must be able to communicate effectively in oral and written modes. In addition, we embrace the ancient value of a sound mind in a sound body and believe, therefore, that a university education should give attention to encouraging intellectual and physical fitness levels that will equip the individual for an energetic and productive life.

Goal Courses (0-11/13 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, but the total required credits in the liberal studies program will be reduced accordingly. Some students may be required to take additional courses to develop basic academic competencies

in reading and study skills and mathematics. However, credits earned in those courses may not be applicable toward the credits required for a baccalaureate degree.

Goal courses in this category will be graded as A, B, C, or NC (no credit). When goal courses are repeated, they will be graded A, B, C, or F.

The basic competency courses, with the exception of physical education/dance activity courses, are subject to continuous registration. Students during the first semester of enrollment will be placed into the appropriate basic competency course(s). Students who receive an "NC" or "F" in these courses must repeat the course(s) the following semester. *Once enrolled, students are not permitted to drop a basic competency course, with the exception of physical education and dance courses.*

Goal II: The Arts

Through the creative process, the artist expresses, challenges, and extends societal values. To understand our own and other cultures, one must come to terms with the artist's effort. 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 (6 credits)
Enrichment Courses (3 credits)
It is strongly recommended that all students enrolled in arts goal courses attend a minimum of two arts events.

Goal III: Cultural Diversity and Global Perspective

The educated person is aware of other people, places and values. He or she has a wide perspective and values 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 (6 credits)
Enrichment Courses (3 credits)
Any credit course (regardless of the number of credits) taken in an international setting will meet the enrichment requirement.

The modern language courses used to satisfy the B.A. requirement may not be used in the enrichment portion of the cultural diversity-global perspective block.

Goal IV: Human Institutions and Interpersonal Relationships

John Donne's declaration that "no man is an island..." speaks eloquently to our time. To do our work and operate our society, we depend heavily upon organizations and institutions. The educated person learns to understand those institutions and to work effectively with other persons to achieve shared goals.

Goal Courses (3 credits)
Enrichment Courses (3 credits)

Goal V: Natural Sciences and Mathematics

The educated person studies science 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)
Enrichment Courses (3 credits)
Students are required to have one laboratory experience in either the goal or enrichment areas of biology, chemistry, geology, or physics.

Goal VI: Our National Experience

Good citizenship demands an understanding of our political, economic and social heritage. The educated person has a sense of historical perspective and a keen perception of the values and forces, which have formed the American experience.

Goal Courses (3 credits)

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)
The liberal studies program requires 42-53/55 semester hours of study. The exact total differs for each student depending upon placement in the Basic Competencies area. Course work must be selected according to the requirements listed below. If a student is exempt from a Basic Competencies Goal course, no credit will be awarded, but the total required semester hour number in the liberal studies program for that student will be reduced accordingly. Other students may be required to take additional courses to develop basic academic competencies in reading and study skills and mathematics. However, credit received in those courses will not be applied toward a degree program.

Academic **Major**

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 the 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 simultaneously; they may not earn two degrees. Also, the university's modern language requirement is a bachelor of arts degree requirement and not a requirement of a major. Therefore, a student earning a second major would *not* be required to complete the modern language requirement for the second major. If the student's initial degree required the modern language requirement, the student would be expected to meet the requirement.

All academic majors must consist of at least 30 credits; at least 12 of which must completed at SRU and 15 of which must be at the upper division (typically numbered 300 or above).

Academic **Minor**

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 a 2.000 minimum quality point average 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 15 credit hours, excluding courses required for professional certification.

A minimum of 9 credit hours of the minor must be upper division. For each student at least 4 credits in the selected minor area must be outside his/her major area requirements or electives counted toward his/her major, and 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 geography, but they can major in geography and minor in cartography.

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. Additional coursework taken after graduating will be recorded on the transcript as post baccalaureate courses. 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 readmittted.

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 advisor may request of the students' academic dean that a different set of minor requirements be met.

Internships

Slippery Rock University offers a diverse program of internships through which students may earn from 1 to 12 credits. 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 minimal 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 15 credits of internship.

Intensive Writing Courses

Every student must complete two intensive writing courses before graduating from Slippery Rock University. This is true regardless of the number of credits transferred from another institution to Slippery Rock University. Intensive writing courses may include courses in Liberal Studies as well as a student's major. Intensive writing requirements are in addition to the College Writing I and College Writing II courses every student must complete. Courses taken at other schools may not be used to meet the Intensive Writing requirement.

Once an intensive writing course is passed, it will be counted towards completion of the University Writing Across the Curriculum requirement even if it is later repeated and failed or is not designed as an intensive writing course when it is repeated.

University **Resources**

Computing Facilities

724-738-4480

The university provides extensive computing facilities for use by all students, regardless of their academic majors. There is no charge for the use of these resources, and there is no limit on the amount of usage. All students are encouraged to utilize the computers to facilitate their studies. The computing facilities that are available include several microcomputer laboratories with over 500 IBM-compatible and Apple Macintosh computers. Small computer laboratories are also provided in several academic departments, and in each of the residence halls. All of these computers are attached to the campus computer network and the university's mainframe computer system. This attachment provides access to the library's on-line card catalog, The Search Bank (for full text of journals), and several reference indices, the campus e-mail system, and connections to the Internet global network. Network connections are available in *all* residence hall rooms. Students interested in connecting personally-owned computers to the campus network from a university residence hall room are to contact the Office of Housing in Rhoads Hall for current information.

Library

724-738-2058

Bailey Library a member of the Keystone Library Network (KLN), which was developed by the 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 for the 14 State System universities allowing access to full-text journal and periodical articles. Students, faculty, or staff at any of the 14 System Universities, or any citizen of the Commonwealth, can initiate a search of the KLN catalog.

Bailey Library offers a full range of resources and services. There are formal and informal study areas for serious scholarship and recreational reading. Information Services Librarians are available to assist with any kind of reference inquiry and for group instruction. Through online databases, interlibrary loan and document delivery services, Bailey Library serves as a gateway to many other information providers.

With total collections of more than two million items, Bailey Library ranks as one of the larger libraries in western Pennsylvania and in the entire Commonwealth. Print collections include approximately 600,000 books, plus thousands of bound periodicals. As a government documents partial depository the library houses over 370,000 U.S. and state documents. Supplementing the print collections are thousands of microfilm and fiche as well as 90,000 audio-

visual items in the Instructional Materials Center, including video cassettes, CDs, slides, kits, and computer software. The library subscribes to over 525 print periodicals and newspapers from around the world.

The newest version of the library online system allows simultaneous searching of the library catalog, any or all of 11,000 full text journals, online indexes and citation databases, and the internet. All online resources are available from the library's 100 public access computers, campus computer labs, dorm rooms, and offices. Students may borrow one of 36 laptop computers for use on the library wireless network.

Technology Support

724-738-2054

The User Services Department provides support services to the university through the provision of personal computer support with training, service and repair. There is also multimedia support for cable television, video, graphics and photography.

Writing Center

724-738-2654

The university's Writing Center, located on the third floor of Spotts World Culture Building, is an integral part of the academic resources at Slippery Rock University. Under the direction of the Department of English, the Writing Center offers full tutorial services for all students of the university. Department of English graduate students, who staff the center, offer students the opportunity for tutorial instruction with any aspect of the writing process from generating ideas, to organizing information, to refining sentence structure, to editing techniques. Diagnostic services are also available for students who want to discover and remedy their writing weaknesses.

The Writing Center is also equipped with personal computers and printers. In addition to selected writing instruction taught in this facility, tutorial instruction on word processors is available. From freshman to graduate student, the university's Writing Center provides a full range of individualized services without charge.

Special Recognition of **Academic 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

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 serves to set the tone for an academic atmosphere where excellence in scholastic endeavors is given the highest priority.

Academic Honors Month

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.

Deans' List

Undergraduate students who earn an adjusted semester quality point average of 3.500 or higher on a schedule of at least 12 new attempted and earned credits will achieve the Deans' List as long as their cumulative QPA is at least 2.000. Student teachers may achieve Dean's List status if they have earned 94 or more credits and have a cumulative QPA of 3.50 or higher at the end of the semester in which they student taught. Repeated courses and P/NC courses will not be computed into the 12 credit-hour minimum. The Office of University Public Relations will submit names of these students to their hometown newspaper for publication. During the Academic Honors Convocation, these students will be formally presented to the university community. There is no Deans' List during the summer term. Post-baccalaureate students are not eligible for the Dean's List.

Honors at Graduation

At both the December and the 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 students will not be eligible for these honors.

- A minimum of 61 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 SSHE 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 61 credit minimum.
- The following cumulative QPA'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 around their necks medallions, 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 cord.

Recognition of honors at graduation will be based upon students' cumulative QPA 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 QPA is calculated.

Honors Program

See *Honors Program in the Academic Departments and Programs* section.

STUDENT LIFE, **Services, and Organizations**

The student affairs staff believes that each student is a person of dignity, worth and responsibility who has elected to attend the university for the purpose of attaining an education and to grow and mature through additional learning experiences outside of the classroom.

The goal of the student affairs 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.

In order to provide those activities and services which will help each student achieve optimum personal development, the student affairs division has professional staff assigned to the following areas, which are coordinated and supervised by the vice president: Aebersold Student Recreation Center, Athletics, Counseling, Auxiliary Student Services (Dining Services), Health Services, Minority Student Affairs, Housing, Student Activities, Student Life, Student Standards, University Police, University Union, and Women's Center.

Preschool Child Care Center

007 McKay Education Building 724-738-2102

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 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 theNational 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.

University Police

145 Keister Road 724-738-2249

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, report on necessary forms, 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 "CLEARY" and "Security Policies and Procedures" mandated by Federal and State Legislation. Please see our web site: **www.sru.edu/depts/finance/police/** or 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 through emergency aid agreements. 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.

Home **Away from Home**

Housing

The Office of Housing supports student growth and development in the residence halls. The philosophy of university residence halls at Slippery Rock University is an educational one of student development that maintains that residence halls are not merely places to eat and sleep. They are communities in which students grow and develop in out-of-class learning experiences through participation in various activities on the personal, social and academic levels. To achieve these objectives, the housing staff offers varied programs that give residence hall students opportunities to meet a wide variety of needs. Full-time professional staff members known as coordinators of residence education supervise the on-campus residence halls. These persons have a master's degree in college student personnel, counseling or related field. Additionally, each residence hall floor has a community assistant available to provide educational and social programs assist in the operation of the facility, offer support for the residents, and be available for emergency purposes. These persons are full time students who have been selected for their leadership and ability to be role models.

The housing office 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 director of residence life when the advanced tuition deposit is submitted. The Housing Appeals Committee will review all requests. During the month of March, residence hall room request cards for the following academic year are given to all students residing on campus.

Slippery Rock University has students representing many creeds, races and ethnic groups 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.

There are eight university-owned residence halls and one apartment complex, housing approximately 2,800 men and women. Currently, one hall is assigned to women, and seven are co-educational by floor or wing. Apartments are single sex. Because of limited space, students cannot be guaranteed housing on campus for their full four years.

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, recreation areas, TV lounges, and computer labs are available in each hall. All residence halls have microwaves available for students to cook snacks and all have kitchen facilities for use by occupants of the building.

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 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.

Policy for Withdrawals

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 set 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 Office of Housing website. Students who live off campus may contract to eat in the university dining facilities.

The Director of Housing and Residence Education serves as a mediator in landlord-tenant problems for students living off campus. Students desiring assistance should contact the housing office to schedule an appointment with the director. The Student Government Association also retains an attorney to assist students with various concerns.

Dining Accommodations

The dining program at Slippery Rock University offers a variety of services throughout the campus for students and their guests. Meal service is available somewhere on campus from 7:00 a.m. to 10:00 p.m. daily.

Weisenfluh Dining Hall, located across from North Hall parking lot, contains a food court with a number of different food stations. This all-you-care-to-eat facility offers something for everyone: Hot entrees and ethnic foods, sandwich selection from the cold deli or hot grille area, pizza, vegetarian entrees, pasta and entrée salads made-to-order. Also available is a soup/salad bar, fresh baked breads, desserts including ice cream and frozen yogurt, and a variety of beverages.

Boozel Dining Hall, located on the lower end of campus beside the University Union, provides a more traditional dining option in a unique atmosphere. Boozel's Cyber Café gives students the opportunity to check their e-mail or surf the net while dining. The entrée selection includes vegetarian and "healthy choice" options, deli, grille, specialty bars, soup/salad bar, and a variety of desserts and beverages. This all-you-care-to-eat facility also features special meals, holiday dinners, monotony beakers, and prize giveaways.

A **Coffee Shoppe** located in the lobby of the University Union, features gourmet coffees, cappuccino, espresso drinks, pastries, and chocolates.

Rocky's Grille, located on the lower level of the University Union, is an a la carte snack bar featuring grille and deli sandwiches, pizza, salads and other grab-n-go items, desserts, and beverages. This operation also provides a delivery service to students who have contracted for a meal plan.

A convenience store located in **Weisenfluh Dining Hall**, provides a large selection of pre-packaged foods, snacks, packed lunches, beverages, and pastries/dessert items baked fresh daily.

There are a number of meal plan options available to Slippery Rock University students. Students residing in a state-owned 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.

ID Cards

Your SRU ID card is your key to many services on campus. It is your admission ticket to the dining facilities, sports events and other campus activities. 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. **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.

Association of Residence Hall Students (ARHS)

This is a recognized student organization that was formed by and represents all on-campus residence hall students. Every residence hall student is a member of ARHS, but only those who represent a residence hall can be a voting delegate. The delegate council consists of five executive board members and four representatives from each of the eight halls.

There are four basic purposes of this organization:

a. To offer residential students a wide variety of programs that will help foster growth in the areas of social, educational and cultural development.
b. To work with the Office of Housing in making recommendations for facility renovations and policy development.
c. To provide services for residence hall students, such as: washer/dryer service, photocopier, refrigerator rentals.
d. To help residence hall students develop and refine their leadership skills.

Fun, Fitness and **Sports**

Aebersold Student Recreation Center

Nicknamed the "ARC" by students, this new 82,000 square foot facility provides many opportunities for students to **"Rock and Recreate."** The facility has been designed to accommodate a variety of sports and activities while promoting positive physical, mental and spiritual health. Highlights of the "ARC" include:

- A 44-foot-high climbing wall leading into the main skylight. Students challenge their abilities, build trust and teamwork as they ascend to new heights.
- The Aebersold Student Recreation Center is the home of the Russell Wright Fitness Center offering numerous fitness and wellness avenues for students to enhance their physical well being. Equipment to develop cardiovascular fitness as well as enhance muscular strength and muscular endurance is available in the 7,714-square-foot facility.
- Gym A, with four wood-floor courts, is a fun haven for basketball and volleyball. No longer do students need to wait until the late-night hours to access a gym for intramural sports, volleyball or basketball pick-up games.
- Enthusiasts of aerobics and floor hockey can step, funk, hip-hop and break away to Gym B. This gym has contoured corners for deck hockey and a special wood floor for aerobicizers.
- The Aquatic Center, with a pool ranging in depth from 3 to 9-feet, offers enticing and exciting water space for lap swimming, aqua-aerobics, water basketball, polo, and even "Dive In" movies. Plus, when the warm weather hits "The Rock," students can "catch some rays" on the 2,700-square-foot sun deck.
- Students can run, walk or jog their way to a healthier lifestyle on the indoor 200-meter track. A warm-up stretching area accompanies the artificial surface track on the mezzanine. Let your mind wander when you exercise while you enjoy a scenic outdoor view.
- The student recreation center includes a lounge area for socializing as well as men's and women's locker rooms.
- The Rock Pride Mezzanine (RPM room) is a multipurpose area that hosts cycle aerobics, health and safety classes and golf.

University Union Indoor Recreation Area

The indoor recreation area provides opportunities for students to participate in a wide variety of games and tournaments in a bright, exciting social atmosphere. There are many of the latest video and pinball games, along with several tournament size billiard tables, as well as table tennis areas, foosball, air hockey and many other opportunities to have fun. For additional information, call 724-738-2625.

Outdoor Adventures/Ski Lodge

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.

Dr. Helen "Susie" Knierim Leadership Institute, Reach Program

REACH is a program at Slippery Rock University which gives students and student organizations experiential learning, team building and leadership

development opportunities on a ropes course consisting of both high (30 ft.) and low (ground level) challenges. This program is free to student organizations, academic classes and varsity athletic teams. For additional information call 724-738-2883.

The Athletic Program

Always a strength at Slippery Rock University, the athletic program offers broad-based opportunities for students to participate. The belief that sports and physical fitness help to expand the scope of today's education has led to a strong institutional commitment to athletics. Three types of athletic activities flourish: Intramural activities attract students who want to participate in athletic competition with other students on campus. Seasonal schedules, tournaments, and special events are held between residence halls, fraternities, sororities, clubs, faculty, and commuting students. Intramural sports are provided for men and women separately, as well as together in coeducational activities. Approximately 20 sports are currently offered as intramural activities, and some sports have more than 1,500 students participating. Slippery Rock University has one of the most extensive intramural programs in the country for a school its size.

Club sports provide the opportunity for competition with teams from other colleges and organizations but at a less formal level than the intercollegiate athletic program. Each club sport is under the supervision of a qualified faculty and staff member. Included in the present club sport offerings for men and women are cycling, lacrosse, judo, rugby, weightlifting and ice hockey. Volleyball is available for men and equestrian is available for women.

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 23 of the university's varsity teams. The list of competitive, intercollegiate teams for women include cross country, tennis, volleyball, soccer and field hockey in the fall; basketball, swimming, and indoor track in the winter; water polo, softball, and track & field in the spring. The men's sports include football, soccer, water polo and cross country in the fall; basketball, wrestling, swimming, and indoor track in the winter; and baseball, tennis, golf 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 (Wrestling, Division I).

Let's **Join In**

Center for Student Leadership

The newly established Center for Student Leadership, located in room 217, University Union, serves as a resource to students who want to get involved in campus life and who wish to develop and enhance their leadership skills. The Center offers a resource library (SOAR); a variety of student organization services (SOS); leadership conferences; SRU LEADS (Leadership Education and Development Seminars); co-curricular transcripts; and information about campus-wide leadership involvement opportunities. For more information regarding the Center for Student Leadership call 724-738-4986.

Freshmen Leader Scholar Program

The Freshmen 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, retreats, and experiences that improve the participants leadership skills, and increases their visibility as emerging student-leaders on campus. Activities are structured to be interesting and fun. The program provides the students with a stipend of $250.00 for successfully completing the program.

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 724-738-2719.

Recognized Student Greek Organizations are:

North American Interfraternity Conference Fraternities
Pi Kappa Alpha
Alpha Sigma Phi
Kappa Delta Rho
Phi Kappa Theta
Pi Kappa Phi
Sigma Tau Gamma
Theta Xi

National Pan-Hellenic Council Fraternities and Sororities
Alpha Phi Alpha
Alpha Kappa Alpha
Delta Sigma Theta
Phi Beta Sigma

National Pan-Hellenic Conference Sororities
Alpha Omicron Pi
Alpha Sigma Tau
Alpha Xi Delta
Delta Zeta
Phi Sigma Sigma
Sigma Sigma Sigma

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 are viewed as opportunities for self-development and self-expression. Therefore, 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 125 organizations, activities, and teams, 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 724-738-2719.

Student Standards

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. Copies of the code are available in the Office of Student Life (B-105 University Union). For information call 724-738-2092.

University Program Board

The University Program Board (UPB) is the major co-curricular sponsor of student activity events. It consists of seven specialized committees and an executive position, all occupied by students, who provide varied programming assuring a diversity of entertainment for the campus community. The seven committees are: Performing Arts, Major Events, University Events, Cultural Diversity, Lectures, Public Relations and Weekend Events. The Union 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 B-122 on the main level in the University Union.

Hot **Spots**

The University Union

As the "Living Room" or "Hearthstone" of the SRU campus, the University Union is much more than a place to relax; it is the place to get involved in campus life. The union hosts a myriad of events and activities meant to educate, develop, serve, and entertain members of the SRU community. The variety of meeting, lounge, conference and multipurpose space makes the union the place for students as well as staff and faculty to use for meetings, special events, conferences and informal gatherings.

The University Union strives to present a variety of out-of-class learning experiences for students. It serves as a unifying force for students, faculty, staff and the community while aiding in exposure to the cultural, educational, recreational and social aspects of campus life. The professional staff coordinates activities, provides specific services to students, advises student organizations, and assists in the development of the social and educational programs offered.

The Office of Student Life, Office of Minority Student Affairs and Cultural Diversity, Cooperative Activities, Multi-Cultural Center, University Program Board (UPB), Rocky's Grille, Student Government Association (SGA), SGA Bookstore and Copy Corner, A Specialty Coffee Shop, WRSK Radio Station, Center for Student Leadership, Information and Service Desk, Indoor Recreation Area, commuter lounge and computer lab, as well as many student organizations are housed in the University Union. For additional information call 724-738-2092.

Appreciating **Differences**

Minority Student Affairs and Cultural Diversity

B-101 University Union 724-738-2700

The Office of Minority Student Affairs and Cultural Diversity is a comprehensive office that assists with the educational, cultural, social and personal needs of ethnic minority students. The primary focus of the office is to develop leaders and scholars. It encourages exposure to the cultural richness found within color, gender, national origin, creed, lifestyle and sexual orientation. The staff advocates educational growth and development of ethnic minority students. Retention and personal enhancement programs are instituted for ethnic minority students to promote academic success and professional development.

The Personal Excellence Program (PEP) is a comprehensive effort to address minority student retention through programmatic efforts. Services that fall under the umbrella of the Personal Excellence Program are:

Black Action Society (BAS)
Black Action Society is a student organization that focuses on the academic, social and cultural development for African American students. Black Action Society also seeks to educate by providing programming that fosters a broad inclusion of diverse populations.

Board of Governors Student Mentor Program
The Board of Governors Student Mentor Program consists of minority students who have been awarded the Board of Governors Scholarship. Upper class Board of Governor and volunteer mentors who meet the general criteria and have completed the appropriate training workshop will mentor freshman recipients.

Building Bridges Program
This program provides a diverse group of student participants with training and practical experience in conducting panel presentations to classes and other groups for the purpose of increasing knowledge about difference. All students are encouraged to participate in this unique program.

Community Service Opportunities
The office identifies community service opportunities for students to consider.

Fraternities and Sororities/National Pan-Hellenic Council (NPHC)
The purpose of African-American heritage fraternities and sororities at Slippery Rock University is to encourage academic success, social and cultural interaction, and to provide service to the campus and local community. NPHC organizations that have been represented on campus include Alpha Kappa Alpha, Alpha Phi Alpha, Delta Sigma Theta, Omega Psi Phi, Zeta Phi Beta, Phi Beta Sigma and Kappa Alpha Psi.

International Student Affairs
Through this office services are provided for international students, their spouses and children: admission and orientation programs, immigration information and assistance, the processing of paperwork (e.g. visa and passport renewal, extensions of stay, work permit, I-20's) host family programs, and personal, social, cultural and academic counseling.

Junior Mentor Program
Upperclassmen are employed through the office to work with incoming freshmen and transfer students in a peer support relationship.

Junior Mentors receive ongoing supervision and training on interpersonal skills.

Junior Mentor Program - Study Group
To help improve study habits and assist in the creation of a community of learners the Junior Mentor Program has established study groups in the Cultural Center for students who want a quiet place to study. Study groups are supervised by Peer Mentors who are also Junior Mentors.

Latino Student Organization (LSO)
The Latino Student Organization provides programs for the Latino-Hispanic population at Slippery Rock University. The Latino Student Organization's mission is to educate and provide the campus community with a better understanding and appreciation of Latino-Hispanic culture and heritage.

Lesbians, Gays, Bisexuals and Allies (LGBA)
Lesbians, Gays, Bisexuals and Allies was created to provide an opportunity for personal growth and education regarding alternative lifestyles and to extend an opportunity for social interaction among members of the gay, lesbian and bisexual community and others. LGBA also provides support for concerned individuals regarding alternative lifestyles and the group seeks to enhance the relationships between gay, lesbian and bisexual communities and the Slippery Rock University campus.

Native American Student Association (NASA)
Established to investigate the history of indigenous people, correct myths about European invasion, to develop spiritually, honor ancient ways and Mother Earth and to promote peace and respect of all people.

Personal Support
Staff members of Minority Student Affairs & Cultural Diversity follow up with minority students in regard to academic and personal concerns.

Residence Hall Early Intervention
This is a reporting system to get information and referrals from Residence Hall Directors to assist students who have adjustment issues.

Sister 2 Sister/Brother 2 Brother Program
Sister 2 Sister and Brother 2 Brother are support organizations for women and men of color. Both student groups are open to faculty and staff, and meet to discuss topics, including goal setting, personal relationships, academics, scholarship, networking, politics, health, family and community issues.

Student Development Opportunities
Opportunities for students to refine their skills through hosting programs, introducing featured speakers, participating in student lectures, co-presenting workshops and more.

Student Development Seminars
Seminars are identified and/or presented throughout each semester to provide students with valuable techniques and knowledge about study habits, multiculturalism, volunteer opportunities career exploration, the power of positive thinking and more.

The Excel Mentor Program
A minority alumni mentor program for Junior Mentors.

The Student Union for Minority Affairs (SUMA):
The "umbrella' mother organization for all minority student organizations on campus. Seeing the need for the unity of all students on the campus of Slippery Rock University, with a particular emphasis on appreciation of diversity.

Religious Organizations and Places of Worship
Students may find worship, fellowship and other religious experience opportunities through the following groups:

Local Churches
All Saints Lutheran Church
Center United Presbyterian Church
Church of the Epiphany (Episcopal)
Church of the Nazarene
Congregation B'Nai Abraham (Jewish)
Grace Tabernacle (Assembly of God)
Highland Presbyterian Church
Latter Day Saints Branch
Newman Center (Roman Catholic)
St. Peter's Church (Roman Catholic)
Christian Missionary Alliance Church of Slippery Rock
Slippery Rock Baptist Church
United Methodist Church of Slippery Rock
Zion Baptist Church
Mount Olive Baptist Church of Grove City

Campus Organizations
All Saints Fellowship
Athletes in Action
Campus Crusade for Christ
Coalition for Christian Outreach
New Life Fellowship
Newman Club
Orthodox Christian Fellowship
SRU Gospel Choir
Christian Bible Rap Sessions

A directory of these and other area worship congregations is available courtesy of the Newman Center at 724-794-8459.

Catholic Campus Ministry at SRU is operated through the Newman Center, located at 342 Normal Avenue (across from Old Main), which is owned and operated by the Roman Catholic Diocese of Pittsburgh. An outreach center to the university community, the Newman Center offers open hospitality, including rooms for study, relaxation, meetings, worship and programming. It aims to be a place of education, of fellowship, or prayer and of faith formation. While welcoming individuals regardless of religious affiliation, Catholic Campus Ministry particularly seeks to support and nourish SRU's Catholic students, faculty and staff as they strive to live their faith in the context of university life. The Newman Center is currently staffed by Rev. James L. Armstrong, D.Min (Director), Mrs. Diane Magliocca (Campus Minister). For more information regarding Mass schedules and ministry programs, call 724-794-8459.

To Your **Health**

Health Services
Located along Campus Drive in Rhoads Hall, the McLachlan Student Health Center supports the university's mission by removing health related barriers to learning and promoting an optional level of wellness. A cost-effective, comprehensive, and holistic approach to health care is provided in a confidential setting. Primary 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 when needed.

The facility includes an outpatient clinic, inpatient facilities, a health promotion department with educational resources, and a 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 the charge nurse at 724-738-2052.

Absence Slips and Notification

The Student Health Center will provide written verification when a student is confined to his/her residence 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. No confidential information about the student's health status can be released without the student's permission.

Health Insurance

All registered graduate and undergraduate students are expected to carry health and accident insurance. This may be done through an independent source, or the student may elect to purchase coverage through the university student insurance program offered at the beginning of each semester. Brochures explaining the university student insurance coverage are mailed to all students in mid July and are available at the student health center.

Students who do not purchase the insurance offered through the university must indicate the independent insurance coverage that they carry by completing the insurance block on their health history form or by photocopying both sides of their insurance card along with completing the primary physician information.

Students participating in varsity athletics, overseas study, and international students must purchase coverage or show proof of comparable coverage.

Counseling Center

Counseling is a collaborative learning experience between the counselor and the student. It encourages the students to utilize the processes of self-exploration and problem-solving to identify their strengths and needs, place needs in priority order, and to set goals for themselves. Through the process of counseling, students may increase their knowledge and understanding of themselves, their relationships with others, and with their environment. Psychologists and professional counselors are available to talk with students on a confidential basis regarding personal matters in the student counseling center, located in 008 Old Main. Twenty-four hour emergency counseling services are also available by contacting either the McLachlan Student Health Center or University Police.

The Counseling Center administers a variety of tests that may aid students in their self-understanding.

HOPE Peer Education Program (Healthy Outreach through Peer Education)

The HOPE program is one prevention method used by the Student Health Center 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 high-risk alcohol consumption, date rape, stress management, healthy relationships, sexually transmitted infections, and communication skills. Students interested in becoming a peer educator should contact the Coordinator for Health Promotion at 724-738-2670.

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 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.

Women's Center

The Women's Center, located at 007E Strain Behavioral Science Building (BSB), is an on-campus resource center that exists to promote equality and respect for women. The Women's Center serves students, staff, faculty, and community members by providing information, referrals, and programming on issues related to the empowerment of women. In addition, the Women's Center offers women and men a safe, comfortable environment in which to study, talk, or to simply relax between classes. The Women's Center also serves as the meeting place for various student organizations and support groups. It is the home of the Bridge Project, a grant funded program to address issues of violence against women on campus.

Personal **Expression**

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.

Publications

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, Ginger Hill is funded by the Student Government Association.

Stone House Review is a journal of history and folklore dealing primarily with the western Pennsylvania region but also including other areas of interest. It is a student publication supported by university and student government funds. Although faculty members assist in editing and selecting works for publication, the history honorary, Phi Alpha Theta, is in charge of the annual publication. Contributors submit papers, book reviews, cartoons, artwork, or photographs, student editors arrange for publication and set up the final proof copy.

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 columns. The *Rocket* covers news, sports, campus announcements, and special 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.

Radio and Television

WRSK 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. WRSK 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 booth, 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 news and interview programs for distribution on the campus cable network.

Theatre 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.

Classroom **Extras**

Academic Honor Societies

Alpha Psi Omega encourages excellence in dramatics on campus. Requirements for membership include active participation in technical work and acting. Invitation for membership is determined by the accumulation of points in the above areas.

Beta Beta Beta, the biology honorary, was founded in 1922 to stimulate scholarship, further scientific knowledge, and promote scientific research. Active members must be second-semester sophomores and must have nine hours in biology with a 3.000 QPA. Associate members must only show an interest in biology. The Slippery Rock (Lambda Lambda) chapter of Tri-Beta publishes a biology newsletter, schedules field trips and social events, and sponsors speakers.

Chi Sigma Iota, an international honor society, gives recognition to counseling professionals and professionals-in-training dedicated to excellence in scholarship, research, and clinical practice. Members must be enrolled in counseling programs leading to graduate degrees, with a QPA of 3.500 or better on a 4.000 scale. Faculty, alumni, and participating professional counselors who have given evidence of distinguished scholarship and professional service and/or graduation from a CACREP approved program are eligible for membership.

Delta Mu Delta rewards achievements by students in the field of business administration. To become eligible for membership, students must have completed 64 credit hours, including 18 credits in the BSBA curriculum and a 3.200 overall QPA. Courses transferred from other institutions will be considered when calculating the QPA requirement.

Eta Sigma Gamma strives to elevate the standards, ideals, competence and ethics of professionally trained members of the health science discipline. The Slippery Rock Omicron Chapter has been working to increase awareness of careers open to health science majors while also providing health education and service to the university and community. Members must be sophomore allied health majors with a 2.800 QPA.

Financial Management Association is a national honor society in finance. Students can qualify with an overall QPA of 3.25, or a 3.25 QPA in finance and related coursework with a minimum of six hours of finance.

Gamma Theta Upsilon strives to further professional interest in geography through academic experiences and social activities. Requirements for induction include a 3.000 QPA in nine credits of geography and a 2.500 overall QPA. Associate members are required to have a 3.000 QPA in three credits of geography.

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 QPA.

Kappa Delta Pi promotes fellowship for those dedicated to teaching as a profession. Education majors who meet the following criteria are eligible for membership; undergraduate students with 60 credits and a 3.0 QPA, transfer students with 18 credits and a 3.0 QPA or post baccalaureate students with 12 credits and a 3.0 QPA.

Lambda Epsilon Delta recognizes outstanding elementary education majors. Students are required to have a 3.000 overall QPA 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 QPA of 3.000 and nine credits in communication courses with a 3.250 QPA.

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 Kappa Tau is a national marketing honorary for marketing majors with a minimum 3.25 QPA who are in the top 20% of their graduating class.

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 QPA of 2.500 with a minimum QPA of 3.000 in music subjects. Members serve the department by ushering, sponsoring concerts, and participating in community outreach programs.

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 QPA of 2.750 and a 3.000 QPA in all major courses.

Phi Eta Sigma All freshman men and women (from any field of study) who have a 3.500 cumulative average and have been enrolled for at least 14 credits are eligible to join the Alpha Chapter of Phi Eta Sigma. The honor society accepts for membership freshman students with superior scholastic achievement. All members of the society become lifetime members.

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 QPA, 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 QPA.

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 QPA 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 QPA and nine credits of parks and recreation courses with a 3.200 QPA.

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 QPA in Spanish and a 2.750 QPA 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 Pi Epsilon Delta is the first special education honorary in the United States. To be eligible for membership, students must have completed nine credits in special education and obtain a 3.250 minimum QPA in special education and be members of one of the other special education organizations.

Sigma Pi Sigma is a national society that fosters interest in physics. Its purpose is the advancement and diffusion of knowledge of physics and its applications to human welfare. To be eligible for membership, a student must have completed at least three physics courses with an average grade of 3.000 or better in these courses and be in the upper one third of their class.

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 SASW courses and have achieved a 3.000 QPA. In addition, students must complete ten hours of volunteer service in the community.

Sigma Tau Delta was established in 1935 at Slippery Rock. Its objectives are to promote mastery in the written media, to encourage worthwhile reading and to foster fellowship among students and faculty of English. Members must have completed nine credits in English beyond the 100 level, completed three semesters of course work, have an overall QPA of 3.000 and a 3.100 QPA in all English courses.

Sigma Theta Tau, an international honor society, gives recognition to baccalaureate and higher degree prepared nurses and students who have demonstrated high academic achievement. Outstanding personal characteristics and leadership are important characteristics of members, thus future leaders in nursing are developed.

Upsilon Pi Epsilon is an honorary society for the computing sciences, which is represented at SRU by the Theta Chapter. Eligibility for students includes a QPA of 3.000 or higher, completion of 27 credit hours of computer science courses, and rank in the top one-third of students having completed 27 credits.

Environmental **Health and Safety**

145 Keister Road 724-738-2055

The environmental health and safety department is committed to the safety and welfare of all university community members. Its office is located in the University Police and Environmental Health and Safety Building at 145 Keister Road.

The department's programs include: fire prevention; fire systems coordination; fire investigations; building inspection; worker and general safety training and programming; environmental compliance of federal, state and local rules/regulations; the administration of Right-to-Know, Asbestos and Workmen's Compensation Programs.

Institute for **Safety and Environmental Management**

Slippery Rock University offers safety and environmental management majors access to the Institute for Safety and Environmental Management. Through the Institute, students are able to enroll, at not cost, in the available certification course offerings and programs, such as hazardous waste operations and emergency response, permit required confined space, hazard communication, respiratory protection, bloodborne pathogens, asbestos, etc. For further information contact the Department of Allied Health.

ACADEMIC **Degree Programs**

Enrollment Services

116 North Hall 724-738-4868

Associate Provost
Amanda Yale

Secretary
Carolyn Colosimo

Departments
Academic Services

Programs
First Year Studies
Retention Services
Services for Students with Disabilities

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 of Services 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 QPA 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.

Department of **Academic Services**

106 Bailey Library 724-738-2012

Chair

Mark Campbell

Secretaries

Laura Holste, Mary Beth Keffalas, and Marsha McKnight

Faculty

Cathy Brinjak, Mark Campbell, Connie Laughner, April Longwell, Deborah Mariacher, Jessamine Montero, Susan Parsons, Armand Policchio, Annette Salsovic, Darla Shields

Office of 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 a host of institutional resources and services. New student orientation is designed to help students achieve a successful transition to university life. Slippery Rock employs a host of 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 quality 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.

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 recently 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

Housed in the Academic Services Center 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, quality 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 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 meets students' immediate academic and content based needs and provides them with effective and transferable study skills. Tutorial services at Slippery Rock University are personalized and tailored to individuals' academic needs.

With emphasis on the basic skills, 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 and spring semester, 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, reducing academic anxiety, choosing a major, and becoming informed on the liberal studies program requirements.

ACT 101

Funded by the Pennsylvania Department of Education, the ACT 101 Program at SRU provides academic support services to 250 students meeting eligibility guidelines of residency and income. This program is designed to give students an opportunity to acquire and enhance skills necessary for academic success in higher education. Serving first-year, transfer, and upper-level students, the ACT 101 Program provides orientation to the university, academic advisement in exploratory and supplemental advisement across majors, registration preparation sessions, peer assistance, tutorial services, majors exploration, linkage with university programs and services, and program advocacy. With a focus on student achievement, the program and university coordinate the ACT 101 financial award of $500 for tuition to program students demonstrating academic success and persistence in their first two semesters. If you are interested in ACT 101 Program services and/or guidelines, please contact the program at 724-738-2012 or act101@sru.edu.

Student Support Services Program

The federally funded Student Support Services Program serves students who have experienced academic challenges at Slippery Rock. Students who are on

academic probation or who are on an academic readmission contract participate in the program to develop successful college skills. Students participate in individual and group academic advisement activities and learning strategies course work which teaches them how to apply and develop effective learning and study habits. Students participating in the program enroll in a learning strategies course, which is focused on developing their learning strategies, academic goals, and decision-making skills.

Developmental Math

Developmental Math coursework is also offered to students needing extra assistance with math. Two courses cover basic arithmetic skills and an overview of introductory algebra. See course descriptions.

Office of Retention Services

116 North Hall 724-738-2011

Director
Carla Hradisky-Coffelt

Secretary
Angela Zimmerman

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 success. Through the Office of Retention Services, Slippery Rock begins early in the first semester freshman year to retain its students by addressing the issues that a first semester freshman will experience. Assistance is offered to freshman students through a computerized assessment program call SAPA (Student Attendance, Performance and Adjustment Report).

Within the first 5 weeks of the semester, faculty who teach first year students are asked, "How are your freshman students doing?" These questions are asked to get a better sense if the students are attending class regularly, if they are prepared, doing homework assignments and are meeting success. Once the freshmen are evaluated, academic advisors along with key university personnel are notified of the problems.

During one-on-one interviews with SAPA cited student, university personnel have the opportunity to speak with students directly, refer them to academic tutoring, support sessions and recommend both personal and career counseling as needed.

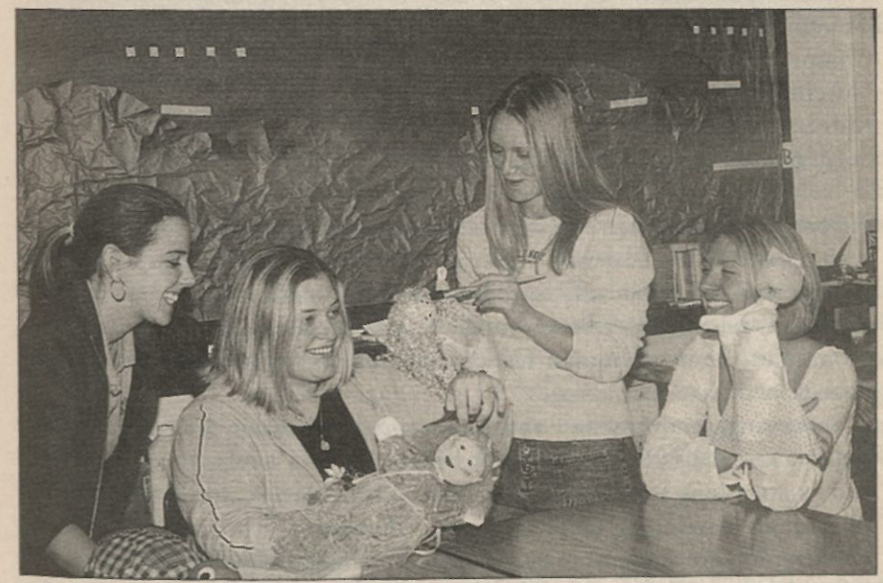
FYRST students who have interrupted their attendance at The Rock for any reason and have not attended another college or university since their departure may resume studies at Slippery Rock University by reapplying for admission through the retention services office.

Office of Services for Students with Disabilities

122 Bailey Library 724-738-4877

Director
Linda Smith

The Office of Services 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 and the Americans with Disabilities Act of 1990 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.



College of **Business, Information, and Social Sciences**

105 Eisenberg Building 724-738-2008

Dean
Bruce Russell

Assistant to the Dean
Larry McCarthy

Administrative Assistant
Barbara P. Porter

Secretary
Leigh McGuirk

Departments
School of Business
Communication
Computer Science
Government and Public Affairs
Military Science
Sociology, Anthropology and Social Work

Slippery Rock University's College of Business, Information, and Social Sciences is comprised of six academic departments: communication, computer science, government and public affairs, military science, sociology/anthropology/social work and the School of Business which includes the programs of accounting, economics, finance, human resource management, international business, management, and marketing.

Increasingly, information and information processing are becoming more important in daily life. Businesses are becoming more involved with information and its processing as both a product and a service. People, too, feel the effects of this rapidly developing emphasis upon 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 the 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, 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: government and public affairs, military science, anthropology, political science, sociology, criminology, and social work.

The College of Business, Information, and Social Sciences also combines popular and rapidly changing fields of study, supported with modern technological equipment and facilities for such areas as computer science, information systems, information technology, multimedia technology, journalism and broadcasting.

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

The Center for Government Contracting Assistance

212 East Cooper Street 724-738-2346

Contracting Specialist
Renee Decker

The Government Contracting Assistance Center (GCAC), a unique segment of the College of Business, Information, and Social Sciences, was established for the purpose of aiding local businesses and industries to compete successfully for federal, state and local government contracts and subcontracts.

The GCAC is a full service procurement technical assistance center. It's primary function is to enhance economic revitalization by bringing federal, state and local contract dollars into the area. The GCAC uses an advanced computerized marketing system to notify companies of federal, state and local bidding opportunities. It also provides education and training on government contracting policies and procedures through regularly scheduled seminars and through individual counseling sessions with companies.

Program in Applied Science

This degree completion program is designed for students who have already earned an associate degree from an accredited two-year institution, including proprietary and technical schools. The associate degree program must include a technical major of at least 35 credit hours. A maximum of 67 credit hours completed at a two-year, technical or proprietary institution may transfer to Slippery Rock University. Up to a maximum of 45 credits earned at the sending institution shall be used to meet liberal studies requirements.

The achievement of an associate degree certifies the adequacy and completeness of the technical training and clearly defines applied science as a transfer program. Once accepted as candidates for the bachelor of science with a major in applied science, students must complete the following requirements:

Earn a minimum of 120 credits (including transfer credits).

Complete the 12-credit professional block designed to prepare the student to assume leadership roles. These courses are: COMM 318, MGMT 250, one of the following: COMM 315 or MGMT 251 or PSYC 210, and one of the following: PHIL 324 or PHIL 325 or PHIL 326. Prerequisites for core courses include for PSYC 210 any 3 credit Psychology course, and for COMM 318 senior status and familiarity with personal computers.

A student is required to have one of the following:

(1) The Applied Technology Management specialization: ACCT 205, MRKT 230, ECON 201 or 202, two MGMT Electives at the 300 level or higher
(2) A university approved minor.
(3) An advisor approved specialization with a minimum of 15 credits.

Recommend at least one course from each of the following groups:

Computer science group: CPSC 110, **CPSC 130, **CPSC 140, **CPSC 142, **CPSC 144 (**Prerequisite is ASSD 110)

Writing group: ENGL 205, ***ENGL 306, ENGL 307, ENGL 308, ENGL 309 (***Prerequisite is ENGL 205)

Two writing intensive courses.

School of **Business**

113 Eisenberg Building 724-738-4865

Chair
David Culp

Assistant Chair
John Misner

Secretaries
Chris Byrd, Carrie Kerr

Faculty
Abbass Alkhafaji, Kenneth Calhoun, Kym Chang, Anindya Chatterjee, David Culp, Peter Grierson, Parameswar Krishakumar, Joseph Lisciandro, Royce Lorentz, Susan Lubinski, Abbas Mamoozadeh, Dinesh Manocha, Larry McCarthy, John Misner, Abbas Noorbakhsh, Bruce Orvis, Frederick Tannery, Donald Tompkins, Jesus Valencia, Theresa Wajda, Lori Zulauf

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 seven majors: accounting, economics, finance, human resource management, international business, management, and marketing. Students in all seven majors complete a core of business courses designed to provide them with a solid foundation in the main functional areas of business.

Slippery Rock University, through the College of Business, Information and Social Sciences, and the School of Business, is accredited by the Association of Collegiate Business Schools and Programs (ACBSP). ACBSP is a leading accreditation association for business education. The programs of study at accredited schools have been examined for currency, relevance, comprehensiveness and rigor. The credentials of the faculty teaching at accredited schools have been examined for preparation and professional development currency and relevance. Students attending Slippery Rock University's ACBSP accredited School of Business can expect programs of study that will prepare them well for the challenges of a career in business in an environment that enhances student learning.

Graduation requirements for all students pursuing the BSBA degree include a minimum 2.000 quality point average in courses designated as the BSBA core, a minimum 2.000 quality point average in courses constituting the major field of study (accounting, economics, finance, human resource management,

international business, management, and marketing), and a minimum 2.000 quality 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.)

BSBA Course Requirements (42 credits)

Required BSBA Core Courses (36 credits): ACCT 209, ACCT 210, ACCT 240, ECON 201, ECON 202, ECON or MGMT 219, FIN 320, MGMT 251, MRKT 230, MGMT 320, MGMT 365, MGMT 458.

Required Non-Business Courses (6 credits): CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214).

Advanced business standing is a prerequisite for economics and business majors to enroll in any 300- or 400-level course in the BSBA program. Advanced business standing is earned through successful completion of ACCT 209, ACCT 210, ECON 201, ECON 202, ECON or MGMT 219, CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214).

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; international business: 15 credits; human resource management: 18 credits; management: 18 credits, and marketing: 18 credits.)

Program in Accounting

A student pursuing a bachelor of science in business administration degree can choose to major in accounting. The program in accounting at Slippery Rock University serves to develop its majors into professional accountants who can function effectively in public accounting, government, and industry. The curriculum focuses on the development of the student's business and accounting knowledge as well as key communication and computing skills. Emphasis is placed on passing the professional certification examinations (CPA, CMA, CFM, and CIA). Student professional growth is encouraged and enhanced through participation in the student chapter of the Institute of Management Accountants and through participation in the internship program in the School of Business.

A certificate in accounting program is offered at the North Hills site and the SRU main campus. This certificate provides the opportunity for individuals with or without a baccalaureate degree to advance their employment potential by developing expertise and technical skills in the challenging and rewarding field of accounting. The accounting major in business administration is accredited by the Association of Collegiate Business Schools and Programs.

Requirements for the Bachelor of Science in Business Administration

Major: Accounting (66 credits)

Required BSBA Core Courses (36 credits): ACCT 209, ACCT 210, ACCT 240, ECON 201, ECON 202, ECON or MGMT 219, FIN 320, MRKT 230, MGMT 251, MGMT 320, MGMT 365, MGMT 458

Accounting Major (24 credits): ACCT 230, ACCT 308, ACCT 309, ACCT 313, ACCT 314, ACCT 411, ACCT 412, ACCT 413

Other Required Courses (6 credits): CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214)

Degree Completion in Four Years
Accounting (BSBA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
CPSC 110, 210	6	ACCT 209, 210, 240	9
ENGL 101, 103	6	MRKT 230	3
Math Requirement	3	MGMT 219	3
Liberal Studies	12	ECON 202	3
ECON 201	3	COMM 200	3
PESM	1	Liberal Studies	9
		PESM	1
Total Hours	*31*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
ACCT 230, 313, 314, 308, 309	15	ACCT 411, 413, 412	9
FIN 320	3	MGMT 365, 320, 458	9
MGMT 251	3	LS/Elective	10
Accounting Elective	3		
LS/Elective	6		
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

Requirements for the Minor in Accounting

Required BSBA Core Courses (36 credits): ACCT 309, ACCT 313, ACCT 314 and one of the following courses: ACCT 230, ACCT 308, ACCT 310, ACCT 411

Requirements for the Certificate in Accounting

ACCT 209, ACCT 210, ACCT 230 or ACCT 240, ACCT 308, ACCT 309, ACCT 313, ACCT 314, and ACCT 411

Program in Business Administration

Slippery Rock University's School of Business, as part of the College of Business, Information, and Social Sciences, offers the Bachelor of Science in Business Administration (BSBA) degree in seven majors: accounting, economics, finance, human resource management, international business, management, and marketing. Students in all seven majors complete a core of business courses designed to provide them with a solid foundation in the main functional areas of business.

Refer to the School of Business for more information about the BSBA degree requirements. Additionally, refer to the sections on specific majors within the School of Business for major course requirements.

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

Required Courses (24 credits): ACCT 205 or ACCT 209, ECON 201 or ECON 202, MGMT 250 or MGMT 251, MRKT 230, 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.

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

Program in Economics

A student pursuing a bachelor of science in business administration degree can choose to major in economics. The program of economics offers a bachelor of science degree and a bachelor of science in business administration with a major in economics. Economics studies how markets allocate resources to promote our material 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 than other business related majors. The emphasis is on developing logical thinking, which aids in decision making 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. The economics major in business administration is accredited by the Association of Collegiate Business Schools and Programs.

Requirements for the Bachelor of Science in Business Administration
Major: Economics (57 credits)

Required BSBA Core Courses (36 credits): ACCT 209, ACCT 210, ACCT 240, ECON 201, ECON 202, ECON or MGMT 219, FIN 320, MRKT 230, MGMT 251, MGMT 320, MGMT 365, MGMT 458

Other Required Courses (6 credits): CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214)

Required Major Courses (15 credits): ECON 301, ECON 302, and 3 elective courses (Elective courses are selected from any 300-400 level economic courses excluding internship, which counts only in free electives)

Requirements for the Bachelor of Science
Major: Economics (36 credits)

Basic Major Requirements (30 credits): ECON 201, ECON 202, ECON or MGMT 219, ECON 301, ECON 302 plus 15 credits of economic elective courses at the 300 level or higher and /or including MGMT 452, MGMT 453.

Math Requirement (3 credits): MATH 120 or higher (excluding MATH 210 and MATH 214)

Skill Requirements (3 credits): CPSC 210

Degree Completion in Four Years
Economics (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
CPSC 110, 210	6	ECON 201, 202, 219	9
ENGL 101, 103	6	ACCT 209, 210	6
Math Requirement	3	COMM 200	3
PESM	2	MGMT 251	3
LS/Elective	15	LS/Elective	9
Total Hours	*32*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
FIN 320	3	ECON 302	3
MRKT 230	3	Economics Elective	6
MGMT 320, 365	6	MGMT 458	3
LS/Elective	12	ACCT 313	3
ECON 301	3	LS/Electives	13
Economics Elective	3		
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

Requirements for the Minor in Economics

Required BSBA Core Courses (36 credits): ECON 301, ECON 302, and two 300 or 400 level economics courses

Requirements for the Minor in Economics for non-BSBA majors

Required Courses (15 credits): ECON 201, ECON 202, ECON 301, or ECON 302

Specified Electives (6 credits): Two additional economic elective courses (200 level or above)

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

Requirements for the Bachelor of Science in Education

The specific course of study and the requirements leading to teacher certification in social studies with an emphasis in economics are available from the Department of Economics or from the student's advisor. See also Teacher Education Policy Manual, available in 105 McKay Education Building. Pending legislation and university programmatic changes now being considered may substantially change the social studies certification requirements. Up-to-date information can be obtained in McKay Education Building 105.

PROGRAM IN FINANCE

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 both the Financial Management Association, an international honor society in finance, and the Economics, Finance, and International Business Club. These 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. The finance major in business administration is accredited by the Association of Collegiate Business Schools and Programs.

Requirements for the Bachelor of Science in Business Administration

Major: Finance (60 credits)

Required BSBA Core Courses (36 credits): ACCT 209, ACCT 210, ACCT 240, ECON 201, ECON 202, ECON or MGMT 219, FIN 320, MRKT 230, MGMT 251, MGMT 320, MGMT 365, MGMT 458

Required Non-Business Courses (6 credits): CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214)

Required Major Courses (18 credits): FIN 321, FIN 323, FIN 327, FIN 328, and two elective courses (6 credits)

Elective courses are selected from other 300- and 400-level finance courses (ECON 301 ECON 302 also serve as Finance electives).

Degree Completion in Four Years
Finance (BSBA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
CPSC 110, 210	6	ECON 210, 202, 219	9
ENGL 101, 103	6	ACCT 209, 210, 240	9
Math Requirement	3	COMM 200	3
PESM	2	MGMT 251	3
LS/Elective	15	LS/Electives	6
Total Hours	*32*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
FIN 320, 323, 321	9	FIN 327, 328	6
MRKT 230	3	MGMT 458	3
MGMT 320, 365	6	LS/Electives	15
LS/Electives	10	Finance Electives	6
Total Hours	*28*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Minor in Finance

Required BSBA Core Courses (36 credits): FIN 321, FIN 323, FIN 327, FIN 328

Requirements for the Minor in Finance (Non-Business majors and Non-Information Science-Finance majors): ECON 201, ECON 202, ACCT 209, ACCT 210, FIN 320, FIN 321, FIN 323, FIN 327

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

Requirements for Certificate in Personal Financial Planning

The following 18 credit hours must be successfully completed (2.0 QPA in program and 2.0 QPA in all SRU coursework) to earn this certificate.

ACCT 308, FIN 321, FIN 329, FIN 421, ACCT/FIN 409, ACCT/FIN 410

Program in Human Resource Management

A student pursuing a bachelor of science in business administration degree can choose to major in human resource management. The human resource management major allows students to specialize in an area of business where the focus is on effectively managing employees or "human resources." Students are provided with an in-depth understanding of all areas of HR including labor relations, compensation, training, recruitment, employee safety, and employment law. Graduates are prepared for careers as an HR generalist or an HR specialist who focuses on one specific aspect of HR. The human resource management major in business administration is accredited by the Association of Collegiate Business Schools and Programs.

Requirements for the Bachelor of Science in Business Administration
Major: Human Resource Management (63 credits)

Requirement BSBA Core Courses (36 credits): ACCT 209, ACCT 210, ACCT 240, ECON 201, ECON 202, ECON or MGMT 219, FIN 320, MRKT 230, MGMT 251, MGMT 320, MGMT 365, MGMT 458

Other Required Courses (9 credits): CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214), AHEA 118

Required Major Courses (18 credits): MGMT 354, MGMT 364, MGMT 451, MGMT 452, MGMT 455, MGMT 460

Degree Completion in Four Year
Human Resource Management (BSBA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
CPSC 110, 210	6	ECON 201, 202	6
PESM (2)	2	MGMT 219, 251	6
AHEA 118	3	ACCT 209, 210, 240	9
Math Requirement	3	LS/Electives	6
LS/Elective	10		
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
MGMT 354, 320, 365, 451	12	MGMT 364, 452, 458,	15
MRKT 230	3	460, 455	
FIN 320	3	LS/Elective	15
LS/Elective	12		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Minor in Human Resource Management: (for non-BSBA students) (24 credits)

MGMT 250 or MGMT 251 (not both), MGMT 354 (6 credits)

Management Electives (12 credits) (Choose four courses): AHEA 118, MGMT 451, MGMT 452, MGMT 455, MGMT 460

Elective Business Courses (6 credits) (Choose two courses): ACCT 205 or ACCT 209 (not both), ACCT 240, ECON 201 or ECON 202 (not both), AHEA 118, MGMT or ECON 219, two courses at the 300-level or above except MGMT 450 Internship, MRKT 230

Requirements for the Minor in Human Resource Management: (for BSBA students)

Required BSBA Core Courses (36 credits): MGMT 354 plus three of the four following courses: MGMT 451, MGMT 452, MGMT 455 (12 credits)

Students pursuing a minor in human resource management must maintain a minimum QPA of 2.000 in all business courses taken at Slippery Rock University.

Program in International Business

A student pursuing a bachelor of science in business administration degree can choose to major in international business. This major combines the study of a foreign language and culture or the study of the political, legal and economic structures of different world regions with the business core through a set of courses especially tailored to the global marketplace. Students are well prepared for jobs in the private or public sector and would be particularly attractive candidates for employment in organizations with foreign operations.

International business is a very exciting and dynamic field with exceptional career opportunities. Majors in this program are strongly recommended to complete a minor in a supporting area such as finance or marketing. Many students also complete a modern language minor. This makes the international business major exceptionally employable with a diverse host of small and large firms in manufacturing, services, financial services, insurance, investment and commercial banks, and government agencies; all of which have a growing involvement with the international marketplace. A significant majority of our graduates find employment in their field of study or enter graduate programs. The international business major in business administration is accredited by the Association of Collegiate Business Schools and Programs.

Requirements for the Bachelor of Science in Business Administration

Major: International Business (57 credits)

Required BSBA Core Courses (36 credits): ACCT 209, ACCT 210, ACCT 240, ECON 201, ECON 202, ECON or MGMT 219, FIN 320, MRKT 230, MGMT 251, MGMT 320, MGMT 365, MGMT 458

Other Required Courses (6 credits): CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214)

Required Major Courses (15 credits): INBS 227, INBS 326, INBS 427, MGMT 457, MRKT 437

International Experience Requirement:

1) Study abroad with credits transferred back to SRU.
2) Taking an SRU course that is taught in whole or partially abroad.
3) Completion of an approved credit internship (domestic or foreign).
4) Completion of a pre-approved and documented international experience. Hours Supporting Courses (12 credits) which can be applied towards Liberal Studies.

Minor Area of Study:

All students are required to choose a minor area of study from the following list:

College of Business, Information, and Social Science

Economics*, Finance*, Marketing*, Management*, Human Resource Management*, Accounting*, Communication*, Computer Science*, Information Systems*, Information Technology*, Political Science*, International Affairs, East Asian Studies

College of Humanities, Fine and Performing Arts

Modern Languages and Cultures - French*, Spanish*, German, Russian, History*, American History, European History, Non-Western History; English, Writing, Philosphy

College of Health, Environment and Science

Mathematics*, Statistics, Geography*

*Student may choose a second major in these areas if desired

Degree Completion in Four Years
International Business (BSBA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
INBS 227	3	COMM 200, 217	6
CPSC 110, 210	6	POLS 263	3
ENGL 101, 103	6	ECON 201, 202, 219	9
Math Requirement	3	ACCT 209	3
PESM 141 and Activity	2	MGMT 251	3
Liberal Studies	12	INBS Elective	3
		Liberal Studies	3

Total Hours	*32*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
MGMT 320, 457	6	MRKT 437	3
ACCT 210, 240	6	MGMT 365, 458	6
MRKT 230	3	Minor	9
INBS 326	3	INBS 427	3
FIN 320	3	Liberal Studies	9
INBS Elective	3		
Liberal Studies	4		
Total Hours	*28*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Minor in Finance for International Business (Majors Only)

Required BSBA Core Courses (36 credits): FIN 321, FIN 323, FIN 427 and one finance course 300- or 400-level or ECON 301, ECON 302

Requirements for the Minor in International Business

Required BSBA Core Courses (36 credits): INBS 227 and three of the following: INBS 326, INBS 427, MGMT 457, MRKT 437

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

Program in Management

A student pursuing a bachelor of science in business administration degree can choose to major in management. The program of management offers the bachelor of science in business administration degree with a 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. The management major in business administration is accredited by the Association of Collegiate Business Schools and Programs.

Requirements for the Bachelor of Science in Business Administration

Major: Management (60 credits)

Required BSBA Core Courses (36 credits): ACCT 209, ACCT 210, ACCT 240, ECON 201, ECON 202, ECON or MGMT 219, FIN 320, MGMT 251, MRKT 230, MGMT 320, MGMT 365, MGMT 458

Other Required Courses (6 credits): CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214)

Required Major Courses (18 credits): MGMT 352, MGMT 354, MGMT 360, MGMT 454, MGMT 457, three credits from any 300- or 400-level management course(s) except MGMT 450

Degree Completion in Four Years
Management (BS/BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
CPSC 110, 210	6	ECON 201, 202	6
PESM (2)	2	ACCT 209, 210	6
LS/Elective	15	MGMT 219, 251	6
Math Requirement	3	MRKT 230	3
		LS/Elective	6
Total Hours	*32*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
MGMT 354, 320, 360, 365	12	MGMT 457, 352, 458, 454	12
FIN 320	3	Management Elective	3
ACCT 240	3	LS/Elective	13
LS/Elective	12		
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

Requirements for the Minor in Management: (for BSBA students)

Required BSBA Core Courses (36 credits): MGMT 352, MGMT 354, MGMT 457, one of any 300- or 400-level management courses (12 credits)

Requirements for the Minor in Management: (for non-BSBA students, 24 credits)

MGMT 250 or MGMT 251 (3 credits)

Management Elective Courses (15 credits) (Choose five courses): Any 300 or 400 level management course except MGMT 450.

Elective Business Courses (6 credits) (Choose two courses): ACCT 205 or ACCT 209 (not both), ACCT 240, ECON 201 or ECON 202 (not both),

MGMT or ECON 219, two courses at the 300-level or above except MGMT 450, MRKT 230.

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

Program in Marketing

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. The marketing major in business administration is accredited by the Association of Collegiate Business Schools and Programs.

Requirements for the Bachelor of Science in Business Administration
Major: Marketing (60 credits)

Required BSBA Core Courses (36 credits): ACCT 209, ACCT 210, ACCT 240, ECON 201, ECON 202, ECON or MGMT 219, FIN 320, MRKT 230, MGMT 251, MGMT 320, MGMT 365, MGMT 458

Other Required Courses (6 credits): CPSC 210, MATH 120 or higher (excluding MATH 210 and MATH 214)

Required Marketing Major Courses (18 credits): MRKT 332, MRKT 333, MRKT 430, MRKT 431, MRKT 437, three credits selected from any 300- and 400-level marketing courses except MRKT 450 Internship

Degree Completion in Four Years
Marketing (BSBA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
CPSC 110, 210	6	ECON 201, 202	6
PESM (2)	2	ACCT 209, 210	6
Math Requirement	3	MGMT 251	3
Liberal Studies	15	MRKT 230	3
		LS/Elective	9
Total Hours	*32*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
MRKT 332, 333, 430	9	MRKT 437, 431	6
MGMT 219, 320	6	MGMT 365, 458	6
FIN 320	3	Marketing Elective	3
ACCT 240	3	LS/Elective	13
LS/Elective	9		
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

Requirements for the Minor in Marketing: (For BSBA students)

Required BSBA Core Courses (36 credits): MRKT 332, MRKT 333, MRKT 437 and one of any 300- or 400-level marketing courses. (12 credits)

Requirements for the Minor in Marketing: (for non-BSBA students) (24 credits): MRKT 230, MRKT 333, MRKT 437 (9 credits)

Marketing Elective Courses (9 credits) (Choose three courses): Any 300 or 400 level management course except MRKT 450.

Elective Business Courses (6 credits) (Choose two courses): ACCT 205 or ACCT 209 (not both), ACCT 240, CPSC 210, ECON 201 or ECON 202 (not both), MGMT or ECON 219, MGMT 250 or MGMT 251 (not both), two MRKT courses at the 300-level or above except MRKT 450.

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

Department of **Communication**

222 Eisenberg Building 724-738-2032

Chair
Mark Banks

Assistant Chair
Mark Chase

Secretary
Rosemary Grgurina

Faculty
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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 new $200,000 multimedia laboratory. The explosion of technology and e-commerce has created a huge demand for individuals who can design, produce, and evaluate multimedia programs. The department is the only program in the State System of Higher Education to offer this track in the major, giving students a competitive advantage in the job market.

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, was recently relocated to 101 Vincent Science Hall. The newly remodeled facility has a control room, audio production booth, 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 news and interview programs for distribution on the campus cable network.

Requirements for the Bachelor of Arts
Major: Communication (39 credits)

Students are required to complete a program of 39 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. A 2.5 QPA in the major is required for graduation.

A minimum of a 2.0 is required in each of the following courses: COMM 110, 310 and 410.

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.

Degree Completion in Four Years
Communication (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
COMM 110	3	COMM Electives	12
COMM Elective	3	Language 103	3
Language 101, 102	6	Liberal Studies Courses	12
FYRST Seminar	1		
Liberal Studies Courses	11		
Total Hours	*30*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
COMM 310	3	COMM 410	3
COMM Electives	12	COMM Electives	6
Free Electives/Minor	6	Free Electives/Minor	21
Liberal Studies Courses	9		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Internship Option (3-12 Credits)

Requirements for the Bachelor of Science
Major: Communication (54 credits)

Students are required to complete a course of study of 56 credit hours. A common core of 17 credits is required for all tracks, including COMM 110, COMM 115, COMM 351, COMM 310, COMM 393, COMM 410, and COMM 493. (In addition, students in all tracks must complete ART115, as part of their Liberal Studies requirements.) A 2.5 QPA in the major is required for graduation.

A minimum of a 2.0 is required in each of the following courses: COMM 110, 310 and 410.

The balance of the program is defined for each track as follows:

Emerging Technology and Multimedia:

15 credits in Technology Skills
3 credits in Design Skills
6 credits in Management/Interpersonal Skills
3 credits in Applied Communication
6 credits in communication electives including: Business or Presentation Skills, Publication/Visual Skills, Multimedia, and Video Production. Students in this track are required to take CPSC 130, and CPSC 140, as part of their Liberal Studies program.

Degree Completion in Four Years
Communication (BS – Emerging Technologies)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200, 232, 254, 257, 258	15
COMM 110, 115, 201, 258	12	CPSC 140	3
FYRST Seminar	1	Liberal Studies Courses	12
CPSC 130	3		
Liberal Studies Courses	9		
Total Hours	*31*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
COMM 310, 351, 359, 393	10	COMM 353, 410, 459, 493	10
COMM Elective	3	COMM 449/or 450	3-12
Liberal Studies Courses	16	COMM Electives	3
		Liberal Studies Courses	3-14
Total Hours	*29*	*Total Hours*	*30*
		Completion Hours	*120*

Internship Option (3-12 Credits)

Public Relations:

17 credits in Core Communication Requirements
27 credits in Public Relations Emphasis
6 credits in Message Production and Preparation
3 credits in Communication Project or Internship (COMM 449 or COMM 450)
3 credits in Business or Marketing

Degree Completion in Four Years
Communication (BS – Public Relations)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200, 201, 231, 232, 242, 351	18
COMM 110, 115, 112	9	Liberal Studies Courses	13
FYRST Seminar	1		
Liberal Studies Courses	15		
Total Hours	*31*	*Total Hours*	*31*

Junior Year	*Hours*
COMM 310, 315, 332, 333, 393	13
Business/Marketing Elective	3
Liberal Studies Courses	12
Internship	3
Total Hours	*31*

Senior Year	*Hours*
COMM 312 or 415	3
COMM 410, 431, 493	7
Message Prod. & Prep. Electives	6
Elective	3
Liberal Studies Courses	8
Total Hours	*27*
Completion Hours	*120*

Internship Option (3-12 Credits)

Journalism:

17 credits in **basic communication core courses**, required of *all* majors in any of three BS tracks (Journalism, Public Relations, Emerging Technologies & Multimedia).

18 credits in **journalism core courses,** including 3 credits in Applied Communication (COMM 449: Communication Project, or COMM 450: Communication Internship.)

18 credits in **communication electives** distributed in the areas of Print Journalism, Broadcast Journalism, and Media Concepts. Students must take at least 2 courses from Media Concepts block, and a least one course from remaining two blocks.

6 credits of specified courses in economics (3 credits) and political science (3 credits) from **Liberal Studies** offerings *(but counted as part of journalism major)*

Degree Completion in Four Years Communication (BS – Journalism)

Freshman Year	*Hours*
ENGL 101, 103	6
COMM 110, 115	6
FYRST Seminar	1
Liberal Studies Courses	18
Total Hours	*31*

Sophomore Year	*Hours*
COMM 200, 242, 345, 351	12
COMM Electives	6
Liberal Studies Courses	12
Total Hours	*30*

Junior Year	*Hours*
COMM 310, 343, 344, 346, 393	13
COMM Elective	3
Liberal Studies Courses	15
Total Hours	*31*
Completion Hours	*120*

Senior Year	*Hours*
COMM 410, 493	4
COMM Electives	12
Liberal Studies Courses	12
Total Hours	*28*

Internship Option (3-12 credits)

Requirements for a Minor in Communication (21 credits)

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

Required core: COMM 110, COMM 310*, COMM 410.

Electives: 12 credits, six must be at the 300/400 level, three of which must be at the 400 level.

Internship or Practicum: 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 2.000 QPA in the minor (including all communication courses beyond 21 credits).

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.

* In place of COMM 310, students may substitute one of the following courses: AHEA 401; SEFE 270; HIST 205; MRKT 430; POLS 310; PSYC 221; PUBA 311; SASW 318, PESM 399.

Department of **Computer Science**

106 Maltby Center

724-738-2040

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Secretary
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Faculty
Michael Conlon, David Dailey, Beverly Gocal, Frank Hulick, Patricia Joseph, Sharadchandra Joshi, Paul Mullins, Sam Thangiah, David Valentine, Deborah Whitfield

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 enable every student to meet his/her academic goal in four years.

Program in Computer Science

The major in computer science emphasizes modern scientific approaches to software 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.

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.

Requirements for the Bachelor of Science
Major: Computer Science (70 credits)

Required Courses (45 credits): CPSC 140, CPSC 150, CPSC 370, CPSC 374, CPSC 376, CPSC 378, CPSC 423, CPSC 464, CPSC 474, CPSC 488, MATH 114, or MKT/ECON 219, MATH 131, MATH 225, MATH 230

Required Electives (12 credits from): CPSC 236, CPSC 323, CPSC 358, CPSC 456, CPSC 466, CPSC 476, CPSC 478, CPSC 450, CPSC 498, (Maximum of 3 credits in CPSC 236 and maximum of 3 credits from Math courses; a maximum of 3 credits in CPSC 450 permitted.)

Required Science Courses (13 hours)

Select (7-8 hours) from: Chem 107, Chem 108 and Chem 111; or Phys 211 and Phys 212; or Phys 201 and Phys 202; or EGEO 101, EGEO 111, EGEO 102 and EGEO 112; or EGEO 101, EGEO 111 and EGEO 231; or EGEO 101, EGEO 111 and EGEO 241; or EGEO 121 and EGEO 221; or BIO 104 and one of BIO 201 or BIO 212 or BIO 250; or BIO 101 and one of BIO 201 or BIO 212 or BIO 218 or BIO 250.

Select 5-6 credit hours of additional science course.

Degree Completion in Four Years
Computer Science (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
CPSC 140, 150	7	CPSC 370, 374, 376	9
MATH 114, 125	7	MATH 225, 131	7
PESM 141	1	Liberal Studies	3
FYRST Seminar	1	CPSC Elective	3
Liberal Studies	6	Science Course (LS)	4
Science Course (LS)	3	Liberal Studies at 300+	3
Total Hours	*31*	*Total Hours*	*32*

Junior Year	*Hours*	*Senior Year*	*Hours*
CPSC 378, 423, 464	9	CPSC 488, 474	6
CPSC Electives	6	CPSC Elective	3
Liberal Studies	3	Liberal Studies	12
MATH 230	4	Free Electives	4
Liberal Studies at 300+	3	Science Course	3
Science Course (LS)	3		
PE Course	1		
Total Hours	*29*	*Total Hours*	*28*
		Completion Hours	*120*

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.

Requirements for the Minor in Computer Science (24 credits)

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 140, CPSC 150, CPSC 370, CPSC 374, CPSC 376

One course (3 credits) from the following: CPSC 236, CPSC 323, CPSC 358, CPSC 378, CPSC 450, CPSC 456, CPSC 464, CPSC 466, CPSC 474, CPSC 476, CPSC 478, CPSC 488, CPSC 498. Maximum of three credits in CPSC 450 permitted.

Two courses (6 credits) from the following: CPSC 450, CPSC 456, CPSC 464, CPSC 466, CPSC 474, CPSC 476, CPSC 478, CPSC 488, CPSC 498.

A minimum of two courses must be numbered 450 or above. These two upper division courses and at least one other course 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 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 and Certificate in Health Care Informatics

See the *Health Care Informatics* section.

Program in Information Systems

The major in information systems emphasizes the application aspect of computer technology that will enable the student to solve problems in a variety of fields. Courses covering fundamentals of information technology as well as programming skills provide the foundation for essential conceptual knowledge and necessary practical relevance. In addition to completing the required computer science courses, an information systems major must complete the courses in one of the allied areas of specialization.

Graduation requirements for all students pursuing the bachelor of science degree with the major of information systems 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 Allied Area, and a minimum 2.000 quality point average in all course work completed at Slippery Rock University.

Requirements for the Bachelor of Science

Major: Information Systems (52-57 credits)

Required Courses (33 credits): CPSC 130, CPSC 140, CPSC 150, CPSC 210, CPSC 323, CPSC 343, CPSC 300, CPSC 413, CPSC 423, CPSC 443, three hours from : CPSC 236 or CPSC 370 or CPSC 305 or CPSC 450, and three hours from: MATH 122, MATH 123, or MGMT/ECON 219.

For An Allied Area in Accounting, Economics, Finance, Management, and Marketing, additional six hours are required from: MATH 122, MATH 123, or MGMT/ECON 219

Required Allied Area (choose one area from the following areas):

Accounting (18 credits): ACCT 209, ACCT 210, ACCT 230, ACCT 309, ACCT 313, ACCT 314

Administrative Psychology (21 credits): PSYC 105, PSYC 210, PSYC 221, PSYC 225, PSYC 306, PSYC 310, one of PSYC 244 or PSYC 277, PSYC 365 or PSYC 449

Communication (21 credits): Three credits from: COMM 110, or COMM 251, and six credits from: COMM 215, COMM 217, COMM 231, COMM 232, COMM 254, and six credits from: COMM 310, COMM 315, COMM 318, COMM 258, COMM 360, COMM 450, and three credits from: COMM 410, COMM 412, COMM 413, and three credits from: COMM 480

Economics (15 credits): ECON 201, ECON 202, ECON 301, ECON 302, ECON 318

English (24 credits): ENGL 204, ENGL 205, ENGL 307, ENGL 308, ENGL 309, ENGL 333, and 3 hours of 300 or 400-level English courses.

Finance (18 credits): ECON 201, ECON 202, FIN 320, FIN 321, FIN 327, ACCT 209

Geological Technician (23 credits): EGEO 101, EGEO 102, EGEO 111, EGEO 112, EGEO 201, EGEO 271, EGEO 272, EGEO 360 and three credits from: EGEO 231 or EGEO 241, and three credits from : G&ES 410 or G&ES 325

Human Factors (21 credits): PSYC 105, PSYC 221, PSYC 225, PSYC 306, one of PSYC 301 or PSYC 303, one of PSYC 212 or PSYC 233 or PSYC 338, and one of PSYC 421 and or PSYC 449

Management (18 credits): MGMT 251, MGMT 320, MGMT 352, MGMT 354, MGMT 365, MGMT 454

Marketing (18 credits): MGMT 251, MGMT 320, MGMT 365, MRKT 230, MRKT 333, MRKT 431

Sport Management (20 credits): PESM 194, PESM 150-01, 150-02, PESM 270, PESM 286, PESM 294, PESM 386, PESM 394

Degree Completion in Four Years
Information Systems (BS)
Allied Areas of: Accounting, Economics, Finance, Management, Marketing

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
CPSC 130, 140	6	CPSC 150, 210, 323	10
PESM 141, PESM Activity	2	ENGL 210	3
MATH 122, 123	6	Allied Area	6
FYRST Seminar	1	MGMT/ECON 219	3
Liberal Studies	9	Liberal Studies	6
Total Hours	*30*	*Total Hours*	*31*
Junior Year	*Hours*	*Senior Year*	*Hours*
CPSC 343, Elective	6	CPSC 300, 413, 423, 443	12
Allied Area	6	Allied Area	6
Liberal Studies	15	Electives	11
Elective	3		
Total Hours	*30*	*Total Hours*	*29*
		Completion Hours	*120*

Information Systems (BS)
For Allied Areas of: Administrative Psychology, Communication, English, Geological Technician, Human Factors, Sport Management

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
CPSC 130, 140	6	CPSC 150, 210, 323	10
PESM 141, PESM Activity	2	ENGL 210	3
FYRST Seminar	1	Allied Area	6
MATH or Bus. Stats	3	Liberal Studies	9
Liberal Studies	12		
Total Hours	*30*	*Total Hours*	*31*
Junior Year	*Hours*	*Senior Year*	*Hours*
CPSC 343, Elective	6	CPSC 300, 413, 423, 443	12
Allied Area	6	Allied Area	5
Liberal Studies	12	Electives	12
Electives	6		
Total Hours	*30*	*Total Hours*	*29*
		Completion Hours	*120*

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 Minor in Information Systems (27 credits)

Minor in information systems 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 140, CPSC 210, CPSC 323, CPSC 300 or COMM 480, CPSC 343 or CPSC 305 or CPSC 413, MGMT 365 or ACCT 230, ECON 201, ACCT 209, COMM 215 or COMM 318.

A minimum of two courses must be upper division (numbered 300 or above). These two upper division courses and at least one other course 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 systems, 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 from CPSC 305, CPSC 343, or CPSC 413.

Program in Information Technology

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.

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.

Major: Information Technology (57 credits)

Required Courses (51 credits): CPSC 130, CPSC 140, CPSC 207, CPSC 217, CPSC 300, CPSC 317, CPSC 323, CPSC 327, CPSC 413, CPSC 427, CPSC 443, MATH 114 or ECON/MGMT 219, COMM 258, ART 114

Electives:
Select 2 courses from one of the following areas:
Management: MGMT 250 and any MGMT course numbered 300 or above.
Marketing: MKTG 230 and any MKTG course numbered 300 or above.
Art: Art 214 and 314

Select 3 courses – 2 must be numbered 300 or above:
CPSC 150, CPSC 210, CPSC 343, CPSC 423, ACCT 205, MGMT 365, CPSC 450, COMM 201, COMM 254, COMM 257, COMM 353, COMM 359, ART 214

Degree Completion in Four Years Information Technology (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
CPSC 130, 140	6	CPSC 207, 217, 323	9
PESM 141	2	MATH 114 or ECON/MGMT 219	3
FYRST Seminar	1	COMM 258	3
1 IT Elective	3	ART 114	3
Liberal Studies	9	IT Elective	3
Free Elective	3	Liberal Studies	6
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
CpSc 317, 327, 413	9	CPSC 300, 427	6
2 courses in MRKT or MGMT or ART	6	CPSC 443	3
Liberal Studies	12	Liberal Studies	12
		IT Elective	3
		Free Electives	9
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

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 413 or above, completed at Slippery Rock University.

Requirements for the Minor in Information Technology (24 credits)
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 207, CPSC 130, CPSC 140, CPSC 217, CPSC 317

Two courses (6 credits) from: CPSC 300, CPSC 327, CPSC 413, CPSC 423, CPSC 427, CPSC 450, MGMT 365, CPSC 443

One additional course (3 credits) from: CPSC 150, CPSC 210, CPSC 323, CPSC 343, CPSC 300, CPSC 327, CPSC 413, CPSC 423, CPSC 427, CPSC 450, ART 214, ACCT 205, COMM 201, COMM 254, COMM 257, COMM 258, COMM 350, COMM 359, MGMT 250, MGMT 365, MGMT 465, MRKT 230, MATH 114 or Econ/MGMT 219

A minimum of two courses must be upper division (numbered 300 or above). These two upper division courses and at least one other course 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.

Department of **Government and Public Affairs**

209 Spotts World Culture Building 724-738-2075

Chair
Richard Martin

Secretary
Nancy Graham

Faculty
George Brown, Mark Daniels, Alice Kaiser-Drobney, George Force, Susan Geiger, Barry Hammond, Richard Martin, Daniel McIntosh, Walter Powell, 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 Freydberg 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. Lorrane Ford '94
Truman Scholar (Pa.) '93
Yale Law School '98
Attorney, Morrison & Foerster LLP (New York, NY)

Program in Political Science

Government and its functions are central to the lives of everyone. Political science studies the politics that surround government and the political behavior of citizens and politicians. It tries to explain and understand the structure and operation of governments, the policies that government adopts, as well as the major issues and values of political life. Political science majors develop the analytic and practical skills that are necessary to grasp the wide range of political problems and opportunities that will challenge society in the years ahead.

Concern for maintaining a quality academic environment is combined with an emphasis on expanding the future employment possibilities of political science majors. Political science majors are prepared to enter occupations related to the field, enter graduate or law school, and enter occupations in other fields, such as education or business and industry.

Members of the department assist students in developing a philosophy of life, meaningful civic roles, and in acquiring the skills that are basic to political, social, and economic success. The preparation of students for continuous civic involvement, 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 programs. Other organizations include Amnesty International, which takes responsibility of the university's Holocaust Remembrance programs. 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 Bachelor of Arts
Major: Political Science (36 credits)

Candidates for the bachelor of arts in political science degree are required:

1. to complete 36 credit hours of course work
2. to complete courses in five of the seven areas listed below.
3. to complete POLS 101 and one additional course in the American Political Institutions block.
4. to complete POLS 105 and one additional course in the Political Theory and Thought block.
5. to complete either POLS 103 or POLS 263 and one additional course in the block associated with the course elected.
6. to complete POLS 310, Research Methods.
7. to complete 18 hours in political science at the 300 or 400 level.
8. 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 101, POLS 200, POLS 300, POLS 321, POLS 323, POLS 325, POLS 300

Political Behavior: POLS 310, POLS 327, POLS 329, POLS 333, POLS 360, POLS 375.

Political Theory & Thought: POLS 105, POLS 341, POLS 343, POLS 345, POLS 349.

International Relations & Politics: POLS 103, POLS 220, POLS 322, POLS 365, POLS 367.

Comparative Politics: POLS 263, POLS 331, POLS 366, POLS 369, POLS 371.

Public Policy & Law: POLS 202, POLS 224, POLS 253, POLS 255, POLS 324, 340, 348, 359, 403.

Public Administration and Service: POLS 111, POLS 151, POLS 205, POLS 232, POLS 280, POLS 305, POLS 311, POLS 330, POLS 353, POLS 455.

Degree Completion in Four Years
Political Science (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENG 101, 103	6	COMM 200	3
POLS 101, 103	6	POLS 105	3
PESM 141, 149	2	ENGL 210	3
SPAN 101	3	G & ES 105	3
MATH 113	3	GEOL 100	3
THEA 141	3	PHYS 101	3
HIST 153	3	HIST 203	3
PHIL 101	3	ENGL 243	3
		SPAN 102, 103	6
Total Hours	*29*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
POLS 310, 331	6	POLS 343, 367, 348, 403	12
HIST 340	3	POLS 450	6
PHIL 331	3	Electives	12
BIOL 101 + LAB	4		
ECON 201	3		
Electives	12		
Total Hours	*31*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Minor in Political Science (18 credits)

Required Courses: 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

Requirements for a Minor in Comparative Politics/International Relations (18 credits)

Three courses from comparative politics: (9 credits): POLS 263, POLS 331, POLS 366, POLS 369, POLS 371.

Three courses from International Relations & Politics: (9 credits): POLS 103, POLS 220, POLS 322, POLS 365, POLS 367.

Requirements for the Minor in American Politics (18 credits)

A minimum of eighteen credits from the following: POLS 101, POLS 200, POLS 201, POLS 224, POLS 321, POLS 323, POLS 325, POLS 327, POLS 360, POLS 375, POLS 403. At least nine (9) of the required eighteen (18) hours must be at the 300 level or above.

Requirements for the Minor in International Affairs

The specific requirement for the minor in international affairs can be found in the Department of Government and Public Affairs. The requirements include eighteen hours, six at the 100 level, to be chosen from a variety of academic disciplines and a demonstrated proficiency in a foreign language at the 103 level.

Requirements for the Minor in Community Service and Service-Learning

The minor in community service and service learning is intended to be useful to those students who may choose to follow either a career path or a personal goal of working within a non-profit, non-governmental organizational context. These course offerings are intended to meet and enhance the three criteria for service learning experiences: training for, participation in, and evaluation of meaningful public service opportunities, thereby helping to prepare students for such work.

Core courses (18 credits): POLS 101, POLS 151, POLS 232, POLS 255, POLS 305, POLS 455.

Note: For students who are interested in pre-law advisement please refer to the *Program in Pre-law* section.

Department of **Military Science (Army ROTC)**

101 Strain Behavioral Science Building 724-738-2019

Chair
Lieutenant Colonel William Bialozor

Secretary
Carol Howryla

Faculty
Lieutenant Colonel Willliam Bialozor, Captain Janel Carbone, Captain Stephen Sullivan

In 1981 Slippery Rock University was authorized as a senior Reserve Officers 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 College Programs

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	*Hours*	*Sophomore Year*	*Hours*
MS 100	3	MS 201	3
MS 102	3	MS 202	3
Junior Year	*Hours*	*Senior Year*	*Hours*
MS 301	4	MS 401	4
MS 302	4	MS 402	4

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 basic camp, normally held during the summer between the sophomore and junior years of college. At basic camp, students learn to challenge themselves physically and mentally, and to build their confidence and self-respect.

After they have successfully completed basic camp, 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 basic camp in the two-year program may compete for two-year scholarships while at camp.

Each scholarship pays for college tuition and required educational fees and provides a specified amount for textbooks. Each scholarship also includes subsistence allowance of $2,500-$4,000 for every year the scholarship is in effect.

All cadets in the Advanced Course receive a subsistence allowance of up to $3,500-$4,000 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 advanced camp. Students attending the basic camp of the two-year program also receive pay for this camp.

The Simultaneous Membership Program

Students who have not been awarded a 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.

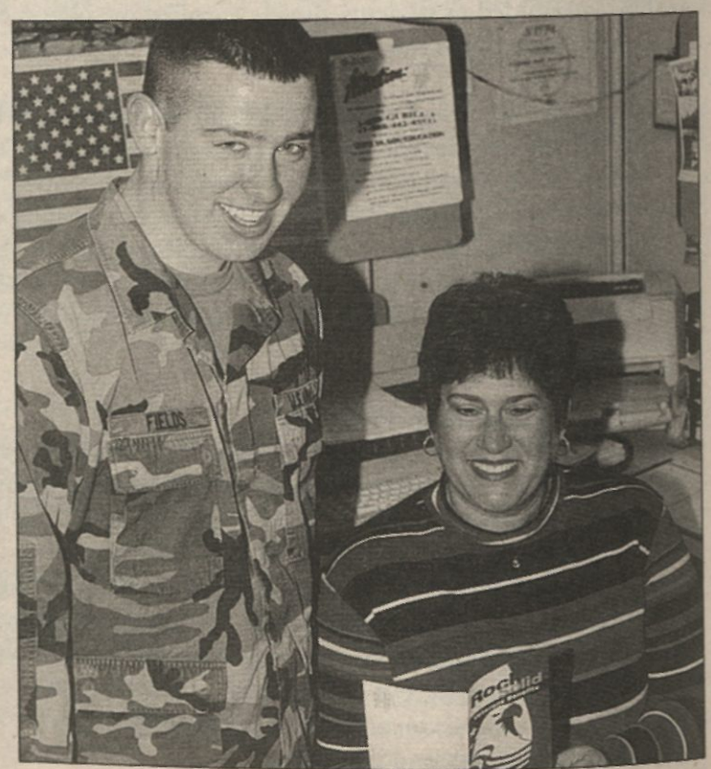
SMP students are paid at the rate of at least a sergeant (E-5) for their guard or reserve training assemblies, plus the aforementioned allowance from the ROTC Advanced Course. SMP students may also be eligible for additional federal and state educational benefits. They serve as officer trainees in their 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 the rate of a Sergeant only the last two 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 junior ROTC 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 2.000 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. They will receive $350-$400 a month subsistence during that time.



Department of **Sociology, Anthropology and Social Work**

004 Spotts World Culture Building 724-738-2084

Chair
Michael Stowe

Secretary
Debra Moors

Faculty
Thomas Bechard, Kundan Bhatia, Deborah Hammond, Katherine Hardesty, Herman Jones, Ahmad Khalili, Srinivasa Mani, Esther Skirboll, Michael Stowe, Erich Vierthaler

Program in Anthropology

Anthropology is the study of human behavior and culture. Most anthropologists are interested in non-western societies, such as tribal and peasant people, but recently many have studied modern ethnic and tribal groups. Anthropologists look for similarities and differences in the life styles of people past and present. Among the topics of their interests are how people make a living, govern themselves, form social ties, and worship. In addition to describing social facts, anthropologists offer insights into the origin and evolution of human beings and their culture, providing students with an opportunity to look at humans in their infinite biological and cultural varieties.

Majors in anthropology have the opportunity to focus on cultural anthropology or archaeology. Anthropology appeals to many students because it enables students to understand and appreciate human behavior from a cross-cultural perspective and to respect cultural differences within their own society.

Students who complete the requirements for a Bachelor of Arts Degree in Anthropology may find employment in resource management, social marketing, and community development. The Peace Corps and VISTA also offer career opportunities. Graduates also find work in archaeology, doing museum work, conducting research among non-Western cultures, or working for an agency or industry. Many anthropology majors decide to continue their education in graduate school. The Bachelor of Arts Degree in Anthropology requires three semesters of a foreign language.

Requirements for the Bachelor of Arts
Major: Anthropology (33 credits)

Core Courses: SASW 201, SASW 202, SASW 211, SASW 212, SASW 310, SASW 317, SASW 320, SASW 401, SASW 412.

Anthropology Electives (6 credits): SASW 226, SASW 312, SASW 322, SASW 324, SASW 327, SASW 339, SASW 342, SASW 395, SASW 450.

Degree Completion in Four Years
Anthropology (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	SASW 211	3
SASW 201, 202	6	SASW Elective	3
Liberal Studies	18	COMM 200	3
PE	2	MOD LANG 101, 102	6
		Liberal Studies	15
Total Hours	*32*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
SASW 212, 310, 317, 320	12	SASW 401, 412	6
MOD LANG 103	3	SASW Electives	6
Liberal Studies	9	SASW 450 (optional)	3-12
		or	
Free Electives	6	Free Electives	4-13
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

Requirements for the Bachelor of Science in Education

The specific course of study and the requirements leading to teacher certification in social studies with a major emphasis in sociology/anthropology are available in the Department of Sociology, Anthropology, and Social Work or from the student's advisor. See also Teacher Education Policy Manual, available in 105 McKay Education Building.

Requirements for the Minor in Anthropology (18 credits)

SASW 202, SASW 211, SASW 212, SASW 320, SASW 401 and one of the following: SASW 310, G&ES 303, G&ES 308, G&ES 309

Program in 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, organizations, 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 Bachelor of Science
Major: Social Work (54-57 credits)

Required Courses: Liberal Arts Base (9 credits), PSYC 105, POLS 101, SASW 201

Core Courses (30 credits): SASW 105, SASW 250, SASW 251, SASW 328, SASW 329, SASW 355, SASW 356, SASW 357, SASW 407, SASW 460

Research Methodology (6 credits): SASW 317, SASW 318

Internships (9-12 credits): SASW 450 Internship - A 405-to 540-hour supervised placement in selected professional agencies.

Degree Completion in Four Years
Social Work (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101,103	6	SASW 250, 251, 328, 329	12
SASW 105,201	6	COMM 200	3
POLS 101		ENG 210	3
(National Experience)	3		
PSYC 105			
(Hum Institution)	3	Liberal Studies	12
PE	2	Free Elective	3
MATH 113 or higher	3		
Liberal Studies	3		
Free Elective	3		
Total Hours	*29*	*Total Hours*	*33*

Junior Year	*Hours*	*Senior Year*	*Hours*
SASW 317, 318	6	SASW 356, 357, 407	9
Liberal Studies	3		
SASW 355	3	SASW 450	9-12
Liberal Studies	9	SASW 460	3
Free Elective	9	Liberal Studies	4
Total Hours	*30*	*Total Hours*	*25-28*
		Completion Hours	*120*

Program in Sociology

Sociology is the study of the many types of groups that make up a society, from the small family to the huge city. Sociologists examine how such groups are formed, how they work together, how they compete, and how they change. Perhaps most important of all, sociologists study how these groups influence the behavior of the people who live in the society. Sociologists collect information in many different ways, including surveys, observing the interaction of people, checking records, and performing experiments. With this information, sociologists develop and test theories, analyze problems, and help organizations reach decisions, among other contributions.

The sociology program offers two tracks: sociology-general and sociology-criminology. Upon graduation, all sociology majors receive a Bachelor of Arts degree. Students in the general sociology track may seek employment after graduation in positions that use sociological knowledge and skills, such as policy analysis and research. This program is also good preparation for professional positions requiring knowledge of society and human behavior such as law, personnel management, and many of the helping professions.

The criminology specialization is a critical study of crime, justice, and the role of law in society. This program is well suited to students who plan careers in law, corrections, and juvenile justice and treatment. In addition to classroom studies, sociology-criminology majors may take an internship to gain practical experience working under supervision. All sociology majors gain a broad liberal arts background and strong preparation for graduate education. The BA Degree in Sociology requires three semesters of a foreign language.

Requirements for the Bachelor of Arts

Major: Sociology-General (30-39 credits)

Core Courses (21credits): SASW 201, SASW 202, SASW 304, SASW 317, SASW 318, SASW 348, SASW 412

Electives (9 credits): Three elective courses from within the department with advisor approval

Internship (optional for 6-9 credits)

Degree Completion in Four Years
Sociology – General (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	SASW 304	3
SASW 201, 202	6	SASW Elective #1	3
Liberal Studies	15	COMM 200	3
PE	2	MOD LANG 101, 102	6
		Liberal Studies	12
		Free Elective	3
Total Hours	*29*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
SASW 317, 318, 348	9	SASW 412	3
SASW Elective #2	3	SASW Elective #3	3
MOD LANG 103	3	Free Electives or Internship	9
Liberal Studies	12	Liberal Studies	3
Free Elective	3	Free Electives	13
Total Hours	*30*	*Total Hours*	*31*
		Completion Hours	*120*

Major: Sociology-Criminology (33 credits)

Core Courses (21 credits): SASW 201, SASW 202, SASW 205, SASW 304, SASW 317, SASW 318, SASW 348, SASW 412

Electives: (12 credits): Three courses from the following: SASW 273, SASW 323, SASW 333, SASW 345, SASW 414. One course from the following: POLS 202, PSYC 202, PHIL 335. Internship (9 hours) is optional.

Degree Completion in Four Years Sociology-Criminology (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	SASW 205, 304	6
SASW 201, 202	6	SASW Elective #1	3
Liberal Studies	15	COMM 200	3
PE	2	MOD LANG 101, 102	6
		Liberal Studies	12
Total Hours	*29*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
SASW 317, 318, 348	9	SASW 412	3
SASW Elective #2	3	SASW 450 (optional)	9
MOD LANG 103	3	SASW Elective #3 & #4	6
Liberal Studies	12	Liberal Studies	9
Free Elective	3	Free Electives	7
Total Hours	*30*	*Total Hours*	*25-34*
		Completion Hours	*120*

Requirements for the Bachelor of Science in Education

The specific course of study and the requirements leading to teacher certification in social studies with an emphasis in sociology/anthropology are available in the Department of Sociology, Anthropology and Social Work or from the student's advisor. See also Teacher Education Policy Manual, available in 105 McKay Education Building. Pending legislation and university programmatic changes now being considered may substantially change the social studies certification requirements. Up-to-date information can be obtained in McKay Education Building 105.

Requirements for the Minor in Criminology (21 credits)

Required Courses (18 credits): SASW 201, SASW 273, SASW 323, SASW 333, SASW 345, SASW 414

Electives (One of the following courses): PSYC 202 or PSYC 321, PHIL 335, POLS 202, POLS 323

Requirements for the Minor in General Sociology (18 credits)

Required Courses (18 credits)

Core Courses (9 credits): SASW 201, SASW 318, SASW 412

Electives (9 credits)

Three approved courses from among sociology offerings.



College of **Education**

105 McKay Education Building 724-738-2007

Dean
C. Jay Hertzog

Assistant to the Dean
Herbert Hunt

Assistant to the Dean
Mary Ann King

Administrative Assistant
Dolores Daugherty

Secretary
Michelle Houston

Informational Writer
Phyllis Kendziorski

Departments
Counseling and Educational Psychology
Elementary Education/Early Childhood Education
Physical Education and Sport Management
Secondary Education/Foundations of Education
Special Education

Slippery Rock University of Pennsylvania has been preparing teachers since 1889, when it began as a 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 the largest segment 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 "world-class" teachers. The College consists of the departments of counseling and educational psychology, elementary and early childhood education, physical education and sport management, secondary education and foundations of education, and special education. In addition, music education, environmental education, and health 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 for each program, the Middle States Association, and the Pennsylvania Department of Education. Additional certification programs (music education, environmental education and health education) 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. 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 examination (PPST); evidence of 40 contact hours with children (see advisor for clarification), and a 2.8 QPA. These criteria are established through the Pennsylvania Department of Education's Chapter 354. For additional requirements related to the admission to teacher education programs, students should consult the "Application for Admission to Teacher Education" form available in the Dean's Office, Room 105 McKay Education Building, or the College of Education homepage–**www.sru.edu/depts/educatio/coll.htm.** In addition, students must present evidence of a clear (no record) Act 34 (criminal record) and Act 151 (child abuse). Out-of-state students must present clear FBI checks. 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 **www.sru.edu/depts/educatio/coll.htm.**

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. Students who anticipate student teaching in the fall pre-register the preceding fall and for spring, the preceding spring. Completed cards, signed by their 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, tuberculin tests, 30 days prior to contact with school students are required. In addition, students must present current evidence of a clear (no record) Act 34 (criminal record) and Act 151 (child abuse). Out-of-state students must present clear FBI 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 for those who comply with directions.

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. Student teachers 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, available in MEB 105 and on the College of Education homepage (**www.sru.edu/depts/educatio/coll.htm**).

Placement of Student Teachers

Students are permitted to make several suggestions for districts in close proximity to permanent or temporary residences in which to conduct their student teaching. 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, a degree may be awarded without recommendation for certification in some instances. 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 QPA for certification and a passing score on the PRAXIS II examination. 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.

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 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-bacc students will be informed of program requirements to be completed to obtain certification in the desired area. Admission to post-bacc study requires a minimum undergraduate QPA (Quality Point Average) for admission. The current minimum QPA is listed among the requirements on the "Application to Teacher Certification" form available in 105 McKay Education Building or on the College of Education homepage: **www.sru.edu/depts/educatio/coll.htm**. In addition to the QPA requirement, post-baccalaureate students must submit proof of clear (no record) Acts 34 (criminal record) and 151 (child abuse) for admission and maintain clear records throughout the program. Out-of-state students must present clear FBI checks. 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 post passing scores on the Praxis I exam during their first twelve credits of study.

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 36 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.

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 (2001/2002). 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 tests are passed.

Area:	*Pass Rate*
Basic Skills	
Elementary Ed Content	97%
Communication Skills	100%
General Knowledge	100%
PPST Reading	97%
PPST Writing	97%
PPST Math	93%
Professional Knowledge	
Principles of Learning & Teaching - K-6	94%
Principles of Learning & Teaching - 7-12	90%
Content Areas	
Elementary Ed.	94%
Early Childhood Ed	100%
English Language Literature	88%
Social Studies Content	86%
Health & PE	98%
Music Content	100%
General Science Content	100%
Special Populations	
Knowledge-based Core Principles	96%
Application of Core Principles	96%

Department of **Counseling and Educational Psychology**

006 McKay Education Building 724-738-2035

Chair
Gerard Love

Secretary
Sharon Lowers

Faculty
Padma Anand, Julaine Field, Michael Ignelzi, Ann Kemmerer, Jered Kolbert, Paulette LaDoux, Gerard Love, Mary Russo, Donald Strano

Certification programs are available only at the graduate level and include a master of education program in elementary school counseling and in secondary school counseling. In addition, at the graduate level the department offers Master of Arts programs in community counseling, with specialization in addiction, child and adolescent, and adult counseling, and also offers a Master of Arts in student personnel. (For description of graduate programs see the Graduate Catalog.)

Department of **Elementary Education/ Early Childhood Education**

104 McKay Education Building 724-738-2042

Chair
Lee Williams

Assistant Chair
Caryn Pugliese

Secretaries
Dixie Hogue, Angela Kay Wolford

Faculty
Susan Argyle, Bernice Brown, Carmine DeCarlo, Sherry DuPont, Nicole Girvan, Thomas Gordon, Rose Heilman-Houser, Herbert Hunt, Deborah Libby, Nikki Merchant, Caryn Pugliese, Suzanne Rose, Anne Slanina, Robert Snyder, Pamela Soeder, Mary Vetere, Deborah Wells, Judy Werner, Lee Williams, Steven Williams, Marilyn Yensick

The Department of Elementary Education/Early Childhood offers an undergraduate certification program in elementary education with the opportunity to add on certification in Early Childhood Education. 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 education courses. Students (in this certification area) are required to complete 40 contact hours with elementary children during the freshman and sophomore years. This early experience is followed by numerous field experiences in elementary classrooms 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 education program is to develop competent, caring and effective state-of-the-art teachers.

Complementary Competencies

In addition to the required courses for teacher preparation, students must demonstrate competencies in complementary areas. Students may complete these requirements by taking courses, through workshops or life experiences. Generally, competency areas are determined by accrediting agencies and state certification requirements. The goal of the complementary competencies is to provide knowledge and experiences, which contribute to the development of well-rounded classroom teachers. Details with regard to meeting these competencies are outlined on the guide sheet for elementary education majors.

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 office, room 104 McKay Education Building. Students are encouraged to work closely with their academic advisor in choosing and declaring these other options.

Requirements for the Bachelor of Science in Education

The specific course of study and the requirements leading to teacher certification administered by the Department of Elementary Education/Early Childhood Education are available in the departmental office, from the student's advisor, 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.

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 and a required practicum. The practicum must be completed in an elementary classroom under the supervision of a university faculty member, even if the student is certified in another area.

Degree Completion in Four Years
Elementary Education Certification

Freshman	*Hours*
ENGL 101, 103, 210	9
CEDP 248	3
SPED 100	3
MATH 210	3
PESM 141	1
Liberal Studies	9-12
Total Hours	*28-31*

Sophomore	*Hours*
SEFE 200	3
CEDP 342	3
MATH 310 (suggested)	3
ELEC 396 (suggested)	3
COMM 200	3
PESM 108/DANC 223	1
BLOCK 1	6
Cultural Awareness	
Children's Literature	
Liberal Studies/Electives	7-10
Total Hours	*29-32*

RECOMMEND: PRAXIS I TESTS (SO. I) STUDENTS MUST APPLY TO THE COLLEGE OF EDUCATION THIS SEMESTER (SO. II) (semester student completes 48 credits)

Junior	*Hours*
SEFE 230, 270	6
BLOCK 2	7
Tch. Elem. Math	
Tch. Elem Science	
Math/Sci. Tch. Lab	
Liberal Studies/Elective (Suggested ELEC 371, 397)	18
Total Hours	*31*

Senior	*Hours*
ELEC 385	3
SEFE 380	3
BLOCK 3	12
Tch. Elem. Reading	
Tch. Language Arts	
Tch. Elem. Social Studies	
Elem. Field Experience	
Student Teaching	12
Total Hours	*30*
Completion Hours	*120*

Department of **Physical Education and Sport Management**

109 Morrow Field House 724-738-2072

Chair
Lynn Spadine Taylor

Assistant Chair
Robin Ammon

Secretaries
Maddy Englehart, Carol Dickey

Faculty
Robertha Abney, Robin Ammon, Darlene Bullock, Victor Campagna, Brian Crow, Kathy Davis, Catronia Higgs, Jan Kasnevich, Joanne Leight, Jennifer Lindsay, Betsy McKinley, Jeff Messer, Randall Nichols, Robert Ogoreuc, Jeff Smith, Lynn Spadine-Taylor

The Department of Physical Education and Sport Management offers major degree programs in physical education and in sport management. The traditional focus within the department is the teacher certification program that prepares students to teach both health and physical education in grades K-12. In addition, the sport management program prepares students for careers in such diverse domains as sport event and sport facility management, marketing, promotions, fitness centers, YWCA/YMCA's, major and minor league sports, and other areas of the sport/business and sport/entertainment fields.

Students are also encouraged to include an additional emphasis area, minor, or concentration of courses in one of the following: sport management, adapted physical activity and rehabilitation, athletic training, aquatics, coaching or dance. The total program is designed to provide a comprehensive knowledge base in health and physical education pedagogy and in sport management.

Program in Physical Education Teacher Education

Requirements for the Bachelor of Science in 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 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 and Sport

Management are available in the departmental office, from the student's advisor, 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.

Degree Completion in Four Years
Physical Education: Teacher Education (BSEd)

Freshman Year		*Sophomore Year*	
ENGL 101	3	COMM 200 (P)	3
ENGL 103 (P)	3	ENGL 201	3
SASW 105	3	PESM 202	3
DANC 105	1	PESM 241	3
PESM 106	3	PESM 243	2
PESM 107	3	CEDP 248	3
PESM 141	1	AHEA 262	3
PESM 152	3	PESM 274	3
PESM 191	2	MATH 113 or higher	3
PESM 192	2	Liberal Studies	6
MATH 113 or higher	3	*CPR and First Aid*	
Liberal Studies	6	*Instructor Competency*	
Total Credits	*33*	*Total Credits*	*32*
Junior Year		*Senior Year*	
PESM 242 (P)	3	CEDP 342 (A)	3
ERS 275 (A)	3	PESM 359	2
PESM 352 (A, P)	3	PESM 452 (A, P).	3
PESM 356	3	AHEA 462 (A, P)	3
PESM 357	3	PESM 468 (A, P)	2
PESM 358	3	PESM 455 (A)	12
AHEA 362 (A, P)	3		
ERS 370 (A, W)	3		
PESM 383 (A)	3		
Liberal Studies	3		
Total Credits	*30*	*Total Credits*	*25*
		Completion Hours	*120*

CODES:
(P) Prerequisite Required
(A) Acceptance to Teacher Certification Required
(W) Waiver from Liberal Studies Hours

Post Baccalaureate Programs

Persons possessing a bachelor's degree may apply for admission to the post baccalaureate program leading to health and physical 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 96 credits of coursework and a required student teaching experience.

Program in Sport Management

"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
Director of Annual Giving
Lobo Club
University of New Mexico

Recent estimates describe sport as one of the ten largest industries in the United States encompassing over $190 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.

The sport management undergraduate faculty has identified international sport as a future trend for sport management majors. It is recognized that the impact of sport on an international setting is fertile ground for tremendous development. Many recent developments demonstrate the globalization of sport and these developments indicate the continued dynamic nature accompanying the growth of sport management worldwide.

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 Bachelor of Science
Major: Sport Management (58 credits)

This major is designed to prepare students with the necessary fitness concepts, management, marketing 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. In addition to the sport management core requirements, additional coursework is concentrated in business management and marketing, public relations, and computer science. 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.

Specialization Courses (46 credits): PESM 150-01, 150-02, 150-03, 150-04, 194, 269, 294, 333, 386, 394, 399, 451, 486, 494, 515

Required Support Courses (12 credits): ACCT 205, CPSC 110, MGMT 250 or 251, MRKT 230

Sport Management Electives (9 credits): Select 9 credit hours of 300 level (or above) classes from Accounting, Communication, Economics, Finance, Management or Marketing.

Degree Completion in Four Years
Sport Management (BS)

Freshman	*Hours*	*Sophomore*	*Hours*
ENGL 101	3	COMM 200	3
ENGL 103	3	PESM 269	3
CPSC 110	3	ACCT 205	3
PESM 194	3	MRKT 230	3
PESM 141	1	MGMT 250/251	3
PESM 150 (P)	1	PESM 150 (P)	1
PESM 294 (P)	3	Liberal Studies	15
Elective	3		
Liberal Studies	9		
PESM 113	1		
Total Hours	*30*	*Total Hours*	*31*

Junior	*Hours*	*Senior*	*Hours*
PESM 150 (P)	1	PESM 150 (P)	1
PESM 333 (P)	3	PESM 399 (P, C)	3
PESM 386 (P, C)	3	PESM 486 (P, C)	3
PESM 394 (P, C)	3	PESM 494 (P, C)	3
Elective	6	PESM 515 (P, C)	3
Liberal Studies	15	PESM 451 (P, C)	12
		Liberal Studies	3
Total Hours	*31*	*Total Hours*	*28*
		Completion Hours	*120*

Codes:
(P) Prerequisite required
(C) Coded course; acceptance to the major required

Requirements for the Minor in Sports Management (25 credits): PESM 150, 194, 269, 294, 333, 386, 394, 451 (6 hr. internship)

The specific course of study for this major is available from the coordinator of sport management in the Department of Physical Education, or from the student's advisor. The student must have at least an overall GPA of 2.25 to graduate with a minor in Sport Management.

Department of **Secondary Education/ Foundations of Education**

114 McKay Education Building 724-738-2041

Chair
Jeffrey Lehman

Secretary
Kay Castor

Faculty
Richard Altenbaugh, John Badgett, Paul Black, Edwin Christmann, Patsy Ann Johnson, Elizabeth Joseph, Jeffrey Lehman, Mark Mraz, Susan Peterson

The mission of the department is to provide secondary education majors with the knowledge, skills, and dispositions required 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 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 the PRAXIS series 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 academic discipline and by one 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
Citizenship-History
Spanish

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

Biology
Chemistry
Earth and Space Science
General Science
Mathematics
Physics

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.

Degree Completion Four Years
BSED (Citizenship-History)

Freshman	*Hours*	*Sophomore*	*Hours*
ENGL 101, 103	6	COMM 200	3
MUSI 101	3	CEDP 248	3
SASW 105	3	ENGL 210	3
MATH 113, 115	6	SEFE 200	3
HIST 152, 201, 202	9	HIST 153, 205, 237	9
ASSD 101	1	ECON 105	3
PESM 141 and other	2	G&ES 105	3
Physical education course		PHYS/LAB 101	3
Total Hours	*30*	*Total Hours*	*30*

Junior	*Hours*	*Senior*	*Hours*
POLS 101	3	HIST 331, 332, 382	9
HIST 322, 340, 380	9	POLS 348	3
PSYC 105	3	SEFE 319, 380	6
SEFE 230, 270	6	SPED 313	3
G&ES 135	3	SEFE 455 - Student	
SEFE 426	1	Teaching	9
SEFE 329	2		
CEDP 342			
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Department of **Special Education**

112 Special Education Building 724-738-2085

Chair

Robert F. Bost, Jr.

Secretary

Linda Forrest

Faculty

Rebecca Badgett, Richael Barger-Anderson, Robert Berner, Robert Bost, Sharon Coben, Dennis Fair, Patrick Grant, Fred Livingston, Francis Manfredi, Joseph Merhaut, Doris O'Shea, Robert Sattler, Donald Stauffer

. . . . . .

"I believe that, with your guidance, I was able to professionally apply the knowledge base presented. I appreciated the support and encouragement that was afforded to all students..."

M. Frye '99

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 40 hours involved in direct contact with individuals who have disabilities 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.

Requirements for the Bachelor of Science in Education

Major: Special Education Certification and Dual Certification (SPED/ELED)

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.

Degree Completion in Four Years
Dual Certification – Special Education (K-12) and Elementary Education (K-6) - BSED
Special Education (BSED)

Freshman	*Hours*	*Sophomore*	*Hours*
ENGL 101, 103	6	COMM 200	3
SPED 100	3	MATH 210	3
CEDP 248	3	SEFE 200	3
SPED 200-level	3	CEDP 342	3
MATH 113 or higher	3	SPED 200 Level	6
LS Science Goal/Lab	3	ENGL 210	3
FYRST Seminar	1	Liberal Studies	9
Liberal Studies	12	PESM 108 or DANC 223	1
PESM 161	1	ELEC 281/288	6
Total Hours	*35*	*Total Hours*	*37*

Junior	*Hours*	*Senior*	*Hours*
ELEC 301, 342, 362	7	SPED 306, 312, 313, 314, 400	15
SEFE 270, 230, 380	9	ELEC 385	3
ELEC 320, 332, 352, 372	12	SPED Student Teaching	6
SPED 302	3	ELEC Student Teaching	6
Liberal Studies	6	*Total Hours*	*30*
Total Hours	*37*	*Completion Hours*	*139*

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, 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 MPH 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 Bachelor of Science

Major: Community Programs for Americans with Disabilities (33 credits) (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.

Degree Completion in Four Years

Freshman	*Hours*	*Sophomore*	*Hours*
SPED 100, 204, 212	9	SPED 202, 203, 105	9
ENGL 101, 102	6	CEDP 342	3
PESM 141/Choice	2	COMM 200	3
Liberal Studies	14	Liberal Studies	15
Total Hours	*31*	*Total Hours*	*30*

Freshman	*Hours*	*Sophomore*	*Hours*
Leisure/Rec Block	9	Management Block	6
Soc-Cultural Block	8	Personal Develop Block	9
SPED 250	3	Internship	12
Liberal Studies	12		
Total Hours	*32*	*Total Hours*	*27*
		Completion Hours	*120*

Requirements for the Minor in Exceptionalities

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: Select 1 course, SPED 100, 105

Level II: Select 2 courses, SPED 203, 204

Level III: Two courses required, SPED 312, SPED 313

College of **Health, Environment, and Science**

325 Physical Therapy Building 724-738-4862

Dean
Jane Fulton

Assistant to the Dean
Adelle Williams

Assistant to the Dean
Mary Ann King

Administrative Assistant
Barbara Massella

Secretary
Stacey Booth

Departments
Allied Health
Biology
Chemistry and Physics
Exercise and Rehabilitative Sciences
Geography, Geology, and the Environment
Mathematics
Nursing
Parks and Recreation/Environmental Education
Psychology
School of Physical Therapy

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: allied health, exercise and rehabilitative sciences, nursing, parks and recreation/environmental education, 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 competition 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 or health 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.

Department of **Allied Health**

208 Strain Behavioral Science Building 724-738-2017

Chair
Joseph Cali

Secretary
Patti Pink

Faculty
John Bavaro, Joseph Cali, Wilma Cavill, Michael Cleary, Kimberly Y.Z. Forrest, Nancy Gabrielsen, Donald Gibala, Marcy Leeds, George Mihalik, Daniel Sherwin, William A. Smith, Wendy Stuhldreher, Adelle M. Williams

The Department of Allied Health provides a diversified curriculum which prepares students for careers in a variety of health and/or safety-related disciplines, such as gerontology, health education, community health, health services administration, and safety and environmental management. The department offers a bachelor of science with a major in health science or a major in safety and environmental management, and a bachelor of science in education with a major in health education, and a certificate or minor in gerontology.

Slippery Rock University is one of an elite group of institutions to have its program in health education meet national standards of the Association for the Advancement of Health Education.

Requirements for the Bachelor of Science in Health Science
Specialization: Community Health (60 credits)

Students majoring in health science may select from the following areas of specialization: community health, or health services administration.

Specialization in Community Health

"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

Community 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 health education positions. Graduates who complete our Community 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, in community based wellness programs, for voluntary health organizations such as the American Heart Association or American Cancer Society, and for federal government health programs such as the Centers for Disease Control and Prevention or the National Cancer Institute, and health insurance companies such as HealthPLACE of Highmark Blue Cross and Blue Shield. About one-half of graduates enter graduate programs in physical or occupational therapy.

Students are encouraged to take additional coursework or minors in complementary areas of study such as gerontology, foreign language or business. The program culminates in a 12-credit internship, which provides hands-on experiences and further insights into career opportunities in community 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 community 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. The internship experience culminates with a mock professional conference on campus at which all students make a professional presentation of the internship project. Frequently interns remain at the sites as employees following their internships.

Community 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 attends and presents under the mentorship of the faculty member. Students also have the opportunity to present at the National Collegiate Undergraduate Research Conference. Other student activities include the Pennsylvania Public Health Association Collegiate Chapter and the peer health education program run by the SRU student health service.

Admission Criteria

Declaration of the community health major does not guarantee admission into the community health program.

To be officially admitted into the community health program, a student must attain a minimum cumulative QPA of 2.000 and a minimum QPA of 2.500 in the program courses by the end of the second semester of the sophomore year.

Curriculum

Professional Requirements: AHEA 210, 262, 301, 309, 310, 311, 312, 313, 314, 406, 410, 450, BIOL 210, 216, 217, CHEM 104, MATH 114

Internship Required: Cumulative QPA of 2.000 and program QPA of 2.500 required for internship assignments, which are during the summer.

Retention Criteria

Students must maintain both a 2.000 cumulative and 2.500 program QPA to be retained in the program. Students failing to meet a QPA of 2.000 cumulative and a 2.500 in the program (major) will be given one semester to meet these requirements. Students can either retake courses or take additional courses to improve their QPA. If the student is not successful in meeting the QPA requirements, the student will be removed from the program. At that point the student must select another major.

Degree Completion in Four Years*
Community Health (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	BIOL 216, 217	6
CHEM 104	3	AHEA 210, 262, 301	9
CPSC 110	3	MATH 114	3
PESM 141	1	COMM 200	3
PESM		Liberal Studies	9
Liberal Studies	18		
Total Hours	*32*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
BIOL 210	3	AHEA 406, 410, 450	18
AHEA 309, 310, 311, 312, 313		Electives	10
314	18		
Liberal Studies	3		
Electives	6		
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

Specialization in Health Services Administration

"The health services administration program at Slippery Rock University built an excellent foundation and offered the opportunities to assist in my personal and professional development. If I had it to do all over again, I would not change a thing."

Jill Sibert, '97
Business Analyst
Health Care Management Services
Highmark Blue Cross/Blue Shield

The health services administration program prepares traditional and non-traditional students to assume decision-making positions within a dynamic health care environment. It accomplishes this by providing a comprehensive and current curriculum in health administration. This program maintains high standards and membership in the Association of University Programs in Health Administration.

Coursework, structured extracurricular learning experiences and an internship provide an excellent foundation in this area. Students are prepared to assume a variety of positions within the health care field and are also prepared to enter highly selective graduate and professional programs.

Health services administration students have pursued a variety of positions within health care systems and health-related organizations. These positions represent a broad spectrum of health care systems including hospitals, nursing homes, managed care plans, group practices, health insurance companies, pharmaceutical companies, technology firms, medical supply companies, adult day care centers, senior citizen centers, rehabilitation centers, primary care centers, retirement villages and medical centers.

Students participate in the student chapter of the American College of Health Care Executives and attend the Annual Congress of the American College of Health Care Executives held in Chicago, Illinois. Field trips include the Hospital Council of Western Pennsylvania, Hamot Medical Center, Health Policy Institute of the University of Pittsburgh, and numerous others.

Health services administration students participate in a 12-week administrative internship during the summer of their junior year or the summer of their senior year. This internship provides the linkage between the knowledge obtained throughout the curriculum and the knowledge required in the field. SRU students have been given excellent recommendations for graduate programs and employment following internships. Additionally, many students have been offered employment as a result of their excellent performance during the internship.

Professional Requirements: AHEA 111, 231, 332, 333, 335, 433, 434, 435, 436, 437, 439, 450, ACCT 205, CPSC 210, MGMT 250, 354, 365

Internship Required: A 12-week summer internship is required as a capstone experience prior to graduation. The internship provides opportunities to obtain practical experience, to network, and to identify potential employment opportunities.

Students are encouraged to maintain active membership in the SRU student chapter and the national chapter of the American College of Healthcare Executives and other professional associations based upon special interests. Invaluable opportunities exist within the organizations and they assist with socializing students into the profession and serve as an excellent opportunity to network with administrators in the field.

Certificate Program

The Health Services Administration (HSA) Program is the only undergraduate program at Slippery Rock University, which has been approved by the Commonwealth of Pennsylvania to offer the 120 hours required to be eligible to sit for the Nursing Home Administration license examination. Once admitted to the HSA program, students must meet all of the HSA program requirements and take six designated courses to earn the certificate in Nursing Home Administration.

Degree Completion in Four Years*
Health Services Administration (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
AHEA 111	3	AHEA 231	3
ENGL 101, 103	6	COMM 200	3
PESM 141	1	CPSC 210	3
Liberal Studies	16	ACCT 205	3
Elective	3	ENGL 210	3
		MGMT 250	3
		Liberal Studies	13
Total Hours	*29*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
AHEA 332, 333, 335	9	AHEA 433, 434	6
MGMT 354, 365	6	AHEA 435, 436, 437, 439	12
Liberal Studies	12	AHEA 450	12
Elective	3		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Bachelor of Science in Education

Major: School Health Education (65 credits)

The specific course of study and the requirements leading to a major in school health education with teacher certification in health education are available in the Department of Allied Health or from the student's advisor.

Official admission to and retention in the College of Education are prerequisites for teacher education coursework. Details are available in the Department of Allied Health or from the student's advisor.

Professional Requirements: AHEA 205, 210, 262, 301, 309, 314, 316, 406, 455, PSYC 321, BIOL 216, CEDP 248, 342, SPED 313, SEFE 200, 270, 329, 375, 380, 426

Degree Completion in Four Years
School Health (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	AHEA 210, 262	6
PESM 141	1	COMM 200	3
Liberal Studies	21	BIOL 216	3
		PESM Activity	1
		SEFE 200	3
		CEDP 248	3
		CEDP 342	3
		Liberal Studies	9
Total Hours	*28*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
AHEA 205, 314, 316	9	AHEA 406	3
AHEA 301, 309	6	SEFE 329, 375, 380, 426	8
SPED 313	3	AHEA 455	12
SEFE 270	3	Liberal Studies	3
Electives	3	Elective	5
Liberal Studies	6		
Total Hours	*30*	*Total Hours*	*31*
		Completion Hours	*120*

*This program is accredited by the National Council for Accreditation of Teacher Education (NCATE).

Program in Safety and Environmental Management

Coordinator

Joseph Cali

"The education and support I received from the faculty in the Slippery Rock University's safety and environmental management major was excellent! The major contained top notch classroom education and a practical real world internship that enabled myself and other alumni to be extremely marketable to employers."

Angela Mattis, '97
Compliance Officer
U.S. Dept. of Labor
Occupational Safety and Health Administration

This major is designed to assure development of competencies which enable innovative approaches in the establishment and direction of comprehensive occupational safety programs in educational, governmental, and private business and industrial enterprises. The curriculum is aimed at assuring understanding of both foundation and application concepts emphasized by contemporary safety programs. The curriculum emphasizes safety integration, risk curtailment, hazard abatement and loss minimization. The philosophical basis of this major is to achieve the mission of curtailing the causes of incidents and minimizing sustained losses and incurred costs. The primary focus is to protect and preserve people, property, and productivity. The major is based on safety management with technical elements incorporated throughout the curriculum. Courses are offered primarily during the day with some evening classes.

All students accepted into the safety and environmental 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. Both of these organizations have annual dues. Students are also encouraged to attend meetings, conferences, seminars, and workshops as part of their professional educational growth.

Students enrolled in the safety major are provided a unique opportunity to access Slippery Rock University's Center for Safety and Environmental Management. Students are able to enroll, at no cost, in the available certification course offerings and programs, such as hazardous waste operations and emergency response, permit required confined space, hazard communication, respiratory protection, blood borne pathogens, asbestos, etc.

Upon completion of the degree, students are prepared for entry-to-mid-level administrative, managerial, and supervisory positions in the field of safety in a variety of enterprises, including, health care, insurance, manufacturing, chemical, consulting, higher education and government agencies. Examples of 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, safety and health compliance officer, safety supervisor, and field safety coordinator.

The internship program is administered in cooperation with a variety of agencies, including government, industry insurance, health care and other related enterprises. Students in the internship program gain practical experience under the direction of professional safety personnel. The 12-week, 12-credit internship is offered only during the summer term, with the majority of interns receiving compensation. Students have been offered safety positions at their internship site as a result of their performance.

Contact the Department of Allied Health for the most current requirements.

Requirements for the Bachelor of Science in Safety and Environmental Management (59 credits)

Required Professional Courses: AHEA 118, 218, 318, 328, 338, 348, 368, 408, 448, 488, and 450. CHEM 104 or 107, MGMT 250 or 251, MGMK 354

Select two from: AHEA 418, 428, MGMT 451, 452, 453, 455, 546

Degree Completion in Four Years
Safety & Environmental Management (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	CHEM 104	3
AHEA 118	3	COMM 200	3
PESM 141	1	ENGL 210	3
Liberal Studies	19	AHEA 218, 338	7
		MGMT 250 or 251	3
		Liberal Studies	6
		Elective	6
Total Hours	*29*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
MGMT 354	3	AHEA 408	3
AHEA 318	4	AHEA 418 or 428	3
AHEA 328, 348, 368	9	PESM Activity	1
AHEA 448, 488	6	Liberal Studies	9
AHEA 418 or 428	3	Elective	1
Liberal Studies	3	AHEA 450 (summer)	12
Elective	3		
Total Hours	*31*	*Total Hours*	*29*
		Completion Hours	*120*

PROGRAM IN GERONTOLOGY

Coordinator

Nancy Gabrielsen

"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
December, 1992

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.

The Student Gerontological Society provides students with opportunities to participate in the annual campus-wide Health Fest in October, community outreach activities, and program marketing as well as attend national and regional conferences. Sigma Phi Omega, the national honorary society in gerontology, recognizes students' exemplary scholastic accomplishments in the field of aging. Undergraduate students with a QPA of 3.300 or above (on a 4.000 scale) are eligible to apply.

Requirements for the Certificate in Gerontology

With the assistance of an advisor from the Gerontology Program, students will select four 3-credit courses approved from the gerontology specialization and will culminate their studies with a 3-credit internship related to their area of interest.

Requirements for the Minor in Gerontology

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. Of the five required courses, one must be Aging and the Older Person (GERO 265), at least one course from the list of approved gerontology courses in the health science area, and one course from the psychological/sociological area.

To enter the gerontology program, students must submit an application form requiring the advisor's signature. 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.

Courses Approved for Gerontology: GERO 265, 425, 450, 465, 490, AHEA 202, 414, ERS 235, 476, SASW 342, PSYC 365, PREE 420, CEDP 504, NURS 498

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. Students must assume responsibility for fulfilling all requirements for graduation.

Program in Health Care Informatics

Coordinator
Ramona Nelson

Health Care Informatics is focused on the development and application of information technology to health care information. It is an interdisciplinary program integrating health care computer and information science. Health care informatics specialists are professionals who assume direct responsibility for automated information systems within a health care context acting as a liaison between health care and computer specialists.

The Health Care Informatics program is offered in three tracts. Tract I is designed for students who are interested in health care and computers but do not have a degree in either area. Tract II is a fast tract for students with a major or degree in one of the health care fields. Tract III is a fast tract designed for students with a major or degree in computer science/information systems. Each of the three tracts is offered as an undergraduate minor or as a certificate. The certificate option is available for post-baccalaureate students who have already completed a bachelor's degree.

All students in each tract are required to take two courses in health care informatics (NURS 311, 511) and complete a 3-credit practicum or internship capstone experience (NURS 450). In addition students must complete the requirements for their specific tract.

Requirements for students in Tract I

CPSC 130 or 140, 210, 323; AHEA 111, 231, 335; a computer science elective course, select one of the following: CPSC 140, 150, 300, 305, or 413; and a health related elective course, select one of the following: AHEA 202, 210, 311, 433, NURS 312, 408, 422, or PHIL 325.

Requirements for health-related student in Tract II

CPSC 130 or 140, 210, 323; elective course, select one of the following: CPSC 140 150, 300, 305, or 413.

Requirements for computer science/information system student in Tract III

AHEA 111, 231, 335; elective course, select one of the following: AHEA 202, 210, 311, 433, NURS 312, 408, 422, or PHIL 325.

Healthcare informatics students will be provided advisement related to the minor or certificate program by Ramona Nelson, nursing department, or Sharadchandra Joshi, computer science department.

Department of **Biology**

123 Vincent Science Hall 724-738-2023

Chair
Jerry Chmielewski

Secretary
Deborah Johnson

Faculty
Simon Beeching, Jerry Chmielewski, Dean DeNicola, Mary Dominiecki, Wayne Forbes, Thomas Gaither, Jack Layne, Susan Rehorek, Mark Shotwell, William Sigmund, Carolyn Steglich, Steven Strain, Jeff Taylor

"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

The fundamental mission of the Department of Biology is to provide students with a comprehensive, contemporary understanding of the biological sciences by enthusiastically offering experiences that are stimulating and challenging. 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.

Our curricula introduce 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. 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 should try to complete all 200-level biology requirements by the end of their sophomore year.

Requirements for the Bachelor of Arts
Major: Biology (31-32 credits)

Biology Courses (31-32 credits)
Basic Requirements: (17 credits)
BIOL 104, 201, 212, 250, 492
Additional requirements (9 credits): BIOL 330, 370, 401, 340 or 465, 410 or 451
Electives (5-10 credits): Select two courses from the above or any approved 300 or 400-level biology majors course. Additional electives may be selected from the Marine Science offerings.
Chemistry Courses (12 credits): CHEM 107, 108, 111, 112, 201, 211
Mathematics Course (4 credits): MATH 125
Physics Course (3 credits): Phys 201
Recommended Courses: CHEM 202, 212, Any CPSC course

Degree Completion in Four Years
Biology (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
BIOL 104, 250	8	BIOL 201, 212	8
CHEM 107, 108, 111, 112	8	CHEM 201, 211	4
ENGL 101, 103	6	COMM 200	3
CPSC 110 (recommended)	3	SPAN 103	3
SPAN 101, 102	6	MATH 125	4
		CHEM 202, 212 (recommended)	4
		PESM 141, Activities	2
		Liberal Studies/Electives	3
Total Hours	*31*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
BIOL Electives	9	BIOL 492	1
PHYS 201	3	BIOL Electives	6
Liberal Studies/Electives	18	Liberal Studies/Electives	21
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

Requirements for the Bachelor of Science
Major: Biology (41-42 credits)

Independent Study Option (41 credits)
Basic Requirements (20 credits)
Biology Courses: BIOL 104, 201, 212, 250, 490, 492
Additional Requirements (15 credits): BIOL 310, 325, 330, 340, 370, 401, 410, 451
Electives (5-10 credits): Select two courses from the above or any approved 300- or 400-level biology majors course. Additional electives may be selected from the Marine Science offerings.
Non-Independent Study Option (41 credits):
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.

Related Sciences
Chemistry Courses (19 credits): CHEM 107, 108, 111, 112, 201, 202, 211, 212, plus one advanced elective from: CHEM 335, or advanced chemistry course approved by Department of Biology chairperson.
Mathematics Course (4 credits): MATH 225
Physics Courses (7 credits): PHYS 211 and 213
Recommended Courses: Any CPSC course

Degree Completion in Four Years
Biology (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
BIOL 104, 250	8	BIOL 201, 212	8
CHEM 107, 108, 111, 112	8	CHEM 201, 202, 211, 212	8
ENGL 101, 103	6	COMM 200	3
PESM 141	1	MATH 225	4
Liberal Studies/Electives	7	PESM Activities	1
		Liberal Studies/Electives	5
Total Hours	*30*	*Total Hours*	*29*

Junior Year	*Hours*	*Senior Year*	*Hours*
BIOL Electives	12	BIOL 490, 492	4
PHYS 211, 213	7	BIOL Electives	12
Liberal Studies/Electives	12	CHEM 335	3
		Liberal Studies/Electives	11
Total Hours	*31*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Bachelor of Science
Major: Cytotechnology
See the *Cytotechnology* section.

Requirements for the Bachelor of Science
Major: Medical Technology
See the *Medical Technology* section.

Requirements for the Minor in Biology
Minimum of 17 credits
Required Courses: One 100-level course with lab. Two of the following courses: BIOL 201, 212, 250
Elective Courses: Six credits of approved courses numbered 300 or above. Additional electives may be selected from the Marine Science offerings.

Requirements for the Minor in Marine Science
Minimum of 26-27 credits
Required Courses
Biology Courses (3/4 credits): BIOL 101 or 104
Chemistry Courses (8 credits): CHEM 107, 108, 111, and 112
Environmental Geosciences Courses (3 credits): EGEO 131
Marine Science Courses (9 credits): MARS 241 (Marine Biology), MARS 331 (Chemical Oceanography), MARS362 plus 3 additional credits from the Marine Science course list.

Requirements for the Teacher Certification in Biology
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.

Program in Cytotechnology

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.

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 Bachelor of Science
Major: Cytotechnology (50 credits)

Required courses
Biology Courses (26 credits): BIOL 104, 210, 213, 214, 215, 216, 217, 250, 335, 470
Chemistry Courses (16 credits): CHEM 107, 108, 111, 112, 201, 202, 211, 212
Mathematics Course (4 credits): MATH 225
Physics Course (4 credits): PHYS 211

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

Program in Medical Technology

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.

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 Bachelor of Science
Major: Medical Technology (50 credits)

Required Courses
Biology (26 credits): BIOL 104, 210, 213, 214, 215, 216, 217, 250, 330, 335 or 370
Chemistry (16 credits): CHEM 107, 108, 111, 112, 201, 202, 211, 212
Mathematics (4 credits): MATH 225
Physics (4 credits): PHYS 211

Slippery Rock University is formally affiliated with the School of Medical Technology at Altoona Hospital, Altoona, PA; Rochester General Hospital, Rochester, NY; Saint Vincent Health Center, Erie, PA; WCA Hospital, Jamestown, NY; and York Hospital, York, PA.

Department of **Chemistry and Physics**

327 Vincent Science Hall 724-738-2031

Chair
Ben Shaevitz

Secretary
Cheryl Dolan

Faculty
Paul Birckbichler, Hans Fellner, Robert Hutchins, Rizwan Mahmood, Krishna Mukherjee, Ben Shaevitz, Mary Sisak, 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

PROGRAM IN CHEMISTRY

A chemistry major studies the characteristics and interactions of matter in order to develop a rational perspective toward chemical information and technology. Two programs of study are available: bachelor of arts and bachelor of science. The bachelor of arts program allows more flexibility in choosing electives to complement the students interests and career goals. The bachelor of science program, which requires more credits in chemistry, is designed to prepare students for postgraduate chemistry programs. Both programs are designed to steadily develop the quantitative, deductive and inductive reasoning skills chemists are expected to have. Students in either program are strongly encouraged to do research under the direction of one of our faculty.

Graduates are qualified and prepared for the variety of professional positions available to chemists in industry or government. Alternatively, graduates can pursue further education in chemistry, engineering, medicine and a number of other science related programs. Students seeking state certification in secondary education must also complete requirements for a Master of Education degree.

The SRU student chemistry affiliate chapter of the American Chemical Society has won national awards on three occasions in recent years. Among student activities are field trips, local events such as "Chem. Games" and independent research projects with members of the faculty, often leading to presentations at American Chemistry Society meetings.

Chemistry majors graduating from Slippery Rock University have gone on to pursue a variety of careers. Examples include positions in industry, obtaining secondary education degrees, attending graduate school, and attending professional schools, including dentistry, pharmacy, and medicine.

College-Wide Requirements: CHEM 107, 111, MATH 225, PHYS 211

Requirements for the Bachelor of Arts
Major: Chemistry (38-39 credits)

Required Courses
Chemistry Courses (31-32 credits): CHEM *108, 112, *201, *202, 211, 212, 301, 321, 335, 336, 350, 351, 425, 426, plus 3-4 credits at the 300 level or above.
Mathematics Courses (4 credits): MATH 230
Physics Courses (3 credits): PHYS 213
*Students must earn at least a "C" or better in these courses to register for Chemistry courses numbered 300 or above.

Degree Completion in Four Years
Chemistry (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
CHEM 107, 108, 111, 112	8	CHEM 201, 202, 211, 212	8
MATH 225, 230	8	PHYS 211, 213	7
Liberal Studies	14	Liberal Studies	15
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
CHEM 301, 321, 335, 336	8	CHEM 305, 351, 425, 426	8
CHEM Elective	3	Modern Language	6
Liberal Studies	16	Electives	13
Modern Languages	3	Liberal Studies	3
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Bachelor of Science
Major: Chemistry (59 credits)

Required Courses for the Chemistry (BS) – Biochemistry Track
Chemistry Courses (32 credits): CHEM *108, 112, *201, *202, 211, 212, 301, 321, 335, 336, 350, 351, 425, 426, plus three credits from 337, and one credit from 496.
Computer Science Course (3 credits): CPSC 130, 140 or 180
Mathematics Courses (4 credits): MATH 230
Physics Courses (3 credits): PHYS 213
Biology Courses (17 credits): BIOL 104, 250, 330, 335, 370
*Students must earn at least a "C" or better in these courses to register for Chemistry courses numbered 300 or above.

Degree Completion in Four Years
Chemistry (BS) – Biochemistry Track

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
CHEM 107, 108, 111, 112	8	CHEM 201, 202, 211, 212	8
MATH 225, 230	8	PHYS 211, 213	7
BIOL 104	4	BIOL 250	4
Liberal Studies	10	Liberal Studies	11
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
CHEM 301, 321, 335, 336		CHEM 337, 425, 426, 496	8
350, 351	12	BIOL 370	3
BIOL 330, 335	6	Liberal Studies	19
CPSC	3		
Liberal Studies	9		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Required Courses for the Chemistry (BS) – Environmental Track
Chemistry Courses (36 credits): CHEM *108, 112, *201, *202, 211, 212, 301, 321, 335, 336, 340, 350, 351, 370, 425, 426.
Computer Science Course (3 credits): CPSC 130, 140 or 180
Mathematics Courses (4 credits): MATH 230
Physics Courses (3 credits): PHYS 213
Biology Courses (8 credits): BIOL 104, 357
Environmental Geosciences Courses (5 credits): EGEO 451, 453
*Students must earn at least a "C" or better in these courses to register for Chemistry courses numbered 300 or above.

Degree Completion in Four Years
Chemistry (BS) – Environmental Track

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
CHEM 107, 108, 111, 112	8	CHEM 201, 202, 211, 212	8
MATH 225, 230	8	PHYS 211, 213	7
BIOL 104	4	Liberal Studies	15
Liberal Studies	10		
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
CHEM 301, 321, 335, 336		CHEM 350, 351, 425, 426	8
340, 370	14	EGEO 451, 453	5
BIOL 357	4	Liberal Studies/Elective	17
CPSC	3		
Liberal Studies	9		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Required Courses for the Chemistry (BS) – Non-Specialized Track
Chemistry Courses (37 credits): CHEM *108, 112, *201, *202, 211, 212, 301, 321, 335, 336, 350, 351, 425, 426, plus one credit from 496 and 6 credits at the 300 level or above.
Computer Science Course (3 credits): CPSC 130, 140 or 180
Mathematics Courses (8 credits): MATH 230, 231
Physics Courses (7 credits): PHYS 212, 213
Biology Courses (4 credits): BIOL 104
*Students must earn at least a "C" or better in these courses to register for Chemistry courses numbered 300 or above.

Degree Completion in Four Years
Chemistry (BS) – Non-Specialized Track

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
CHEM 107, 108, 111, 112	8	CHEM 201, 202, 211, 212	8
MATH 225, 230	8	PHYS 211, 213	7
BIOL 104	4	MATH 231	4
Liberal Studies	10	Liberal Studies	11
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
CHEM 301, 321, 335, 336	8	CHEM 350, 351, 425, 426,	
PHYS 212	4	496	9
CPSC	3	CHEM Electives	6
Liberal Studies	15	Liberal Studies/Electives	15
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Minor in Chemistry

Required Courses
Option A: CHEM 107, 108, 111, 112, 201, 202, 211, 212, 335, 475
Option B: CHEM 107, 108, 111, 112, 225, 301, 302, 321, 322

Requirements for the Teacher Certification in Chemistry

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.

PROGRAM IN PHYSICS

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.

Requirements for the Bachelor of Arts
Major: Physics (39 credits)*

Required Courses (19 credits): PHYS 212, 213, 314, 331, 381, 411
Elective Physics (select 6 credits): PHYS/CHEM 301, PHYS 315, 325, 410, 480
Related Field Work (14 credits): CPSC 140, MATH 230, 231, 240
*A language is required of all BA majors

Requirements for the Bachelor of Arts
Major: Physics

Specialization: Engineering
See the Pre-professional Programs section.

Degree Completion in Four Years
Physics (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
PHYS 211, 213	7	PHYS 212	4
CHEM 107, 111	4	CPSC	3
MATH 225, 230	8	MATH 231, 240	7
Liberal Studies	11	Liberal Studies	16
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*
PHYS 314, 331, 381, 411	12
Liberal Studies	15
Modern Languages	3
Total Hours	*30*

Senior Year	*Hours*
PHYS Elective	6
Modern Language	6
Electives	15
Liberal Studies	3
Total Hours	*30*
Completion Hours	*120*

Requirements for the Bachelor of Science
Major: Physics (57 credits)

Required Courses (30 credits): PHYS 212, 213, 314, 331, 371, 381 (must take twice), 410, 411, 480

Elective Physics (Select 6 credits): PHYS/CHEM 301, PHYS 315, 325

Related Field Work (21 credits): CHEM 108, 112; MATH 230, 231, 240, 301, CPSC 140

Degree Completion in Four Years
Physics (BS)

Freshman Year	*Hours*
PHYS 211, 213	7
CHEM 107, 108, 111, 112	8
MATH 225, 230	8
Liberal Studies	7
Total Hours	*30*

Sophomore Year	*Hours*
PHYS 212	4
CPSC	3
MATH 231, 240	7
Liberal Studies	16
Total Hours	*30*

Junior Year	*Hours*
PHYS 314, 331, 381, 411	12
PHYS Electives	6
MATH 301	3
Liberal Studies	9
Total Hours	*30*

Senior Year	*Hours*
PHYS 371, 381, 410, 480	11
Liberal Studies	19
Total Hours	*30*
Completion Hours	*120*

Requirements for the Minor in Physics

Required Physics Courses (16-19 credits): PHYS 211, 212, 213 and two courses at or above the 300 level

Requirements for the Teacher Certification in Physics

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.

Department of **Exercise and Rehabilitative Sciences**

Stoner Instructional Complex – 114 West Gym 724-738-4864

Chair
Susan Hannam

Secretary
Deborah Glenn

Faculty
Jonathan Anning, Pamela Arnhold, Robert Arnhold, Susan Hannam, Susan Herman, Jeffrey Lynn, Nelson Ng, Patricia Pierce, William Ryan, Bonnie Siple, Scott Zema

The increasing growth of fitness, sport, and wellness programs continues to create a need for well-trained professionals able to assume and handle multiple roles in organizations. To meet these challenging roles individuals must be trained to think critically, communicate effectively, work well as a team member, utilize the latest technologies, and be competent in their field of study.

The Department of Exercise and Rehabilitative Sciences was developed to accentuate and provide collaboration opportunities for students and faculty in three well-established programs. These distinct programs produce graduates well prepared to be successful in a highly competitive workplace. The programs include majors in athletic training and exercise science and a minor in adapted physical activity. All three programs provide extensive opportunities for hands-on experiences in actual worksites through internships/practica.

Requirements for the Bachelor of Science

Major: Exercise Science (60 credits)

"My educational experience in the Exercise Science Department has been one of positive influences and excellent mentoring. This positive environment motivated me to pursue my master's degree here at SRU."

Dennis Bowers'02
Slippery Rock University Graduate Student

The Exercise Science program is the first to be nationally accredited by the American Society of Exercise Physiologists. This major is designed to prepare students to serve as fitness/exercise specialists in a variety of physical fitness/health promotion programs. The theoretical coursework is concentrated in the areas of exercise physiology, physical fitness assessment and fitness/wellness programming. These specialized courses are supplemented by foundation courses selected from the natural and behavioral sciences. Practical application and experience is provided through fieldwork at the Russell Wright Fitness Center, located on the campus of Slippery Rock University. The culminating experience is a full-time internship in one of approximately 75 quality programs, which have cooperative agreements with the university. The internship sites are selected through careful advisement to provide the best possible experiences for students in either corporate, hospital, commercial or community settings. Furthermore, students have the opportunity to attend regional and national professional meetings, be active participants in the Exercise Science Society, and assist faculty in research projects and activities.

Employment opportunities are available in YMCA's, corporate fitness and health promotion programs, wellness centers, health spas and fitness clubs and various clinical and rehabilitative centers.

Required Courses

Exercise Science Core Courses (21 credits): ERS 100, 264, 273, 351, 375, 376, 377

Specialization Area Courses (30 credits): AHEA 424, ERS 450, 474, 475, 484, 493, 561

Liberal Studies Courses (9 credits): PHYS 201, BIOL 216, 217

Policy for Admission into the Exercise Science Major

University acceptance to pursue the Exercise Science major does not guarantee admission into the exercise science program. Formal application to the Exercise Science major must be completed by the student according to the following procedures:

1. It is the student's responsibility to submit an Application to the Major form to the Exercise and Rehabilitative Sciences Department Chair's Office (115 West Gym) during the semester in which he/she is enrolled and would earn a total of 48 credit hours.
2. The application must be submitted by December 1st in the fall and May 1st in the spring.
3. Entering transfers from other universities with earned credits beyond 48 hours have a one-semester grace period.
4. On or before the beginning of the following semester students will receive notification of acceptance or denial to the major according to the following:
   a. Acceptance
      The student has fulfilled all major requirements listed on the Degree Audit Report (DARS) in the section "Prerequisites For Admission to Exercise Science Program" and has an overall and major QPA of 2.5 or higher. Once the student has been accepted into the Exercise Science major, it will take the student at least three semesters to complete the curriculum plus a 12-credit internship.
   b. First Denial
      Not fulfilling the requirements as stated above will result in a first denial. Failure to submit an application will also result in a first denial. Students who are denied for the first time are not permitted to take upper level Exercise Science coded courses. Students must reapply for a second time the following semester.
   c. Second Denial
      If students do not meet the requirements again, they are denied the second time. Failure to submit an application will also result in a second denial. In the case of a second denial, students are not retained in the major and their major is changed to Exploratory. Students are not permitted to reapply to the Exercise Science major for one year following a second denial. If after one year the student has an overall QPA of 2.5, he/she may reapply and repeat the application process as stated previously.

Policy for Retention in the Exercise Science Major

Students who are admitted into the program must maintain a major and overall QPA of 2.5 or higher. Students are not permitted to do their internships unless they have met QPA standards. Failure to maintain academic standards will result in a one-semester probation in which the student must remedy QPA deficiencies. If the necessary QPA requirements are not attained after one semester of probation, the student will be removed from the program.

Policy for Changing to the Exercise Science Major

Any student changing their major to Exercise Science must have an overall QPA of 2.5 or higher.

Degree Completion in 4 Years
Exercise Science (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ERS 100, 264	6	ERS 273, 375	6
ENGL 101, 103	6	COMM 200	3
PESM 141	1	PHYS 201	3
PESM ACTIVITY	1	BIOL 216 or 217	3
Liberal Studies/Electives	18	Liberal Studies/Electives	15
Total Hours	*32*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
ERS 351	3	ERS 475	3
ERS 376	3	ERS 484	3
ERS 377	3	ERS 493	3
ERS 474	3	ERS 561	3
BIOL 216 or 217	3	ERS 450	12
AHEA 424	3	Liberal Studies/Electives	4
Liberal Studies/Electives	12		
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

PROGRAM IN ATHLETIC TRAINING

Requirements for the Bachelor of Science in Athletic Training
Major: Athletic Training (63 credits)

"My educational experiences at SRU have enabled me to not just succeed in my professional career, but to excel in all aspects of my profession. Slippery Rock has laid the solid foundation on what I build upon daily. Without that foundation I would not be where I am today."

Kevin Kotsko '95
Clinical Instructor/Assistant Athletic Trainer
West Virginia University

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 Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredits the athletic training education program upon the recommendation of the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT). Students fulfilling the total 120 credit hours of academic program requirements will graduate with a Bachelor of Science degree in Athletic Training.

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 frequently attend the annual conferences of those professional organizations and participate in various field trips, professional medical affiliations, surgical observations, and physicians' clinics. SRU sponsors a unique accelerated ATEP that graduates athletic training students 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 including six (6) required credits of therapeutic exercise in the summer between the student's sophomore (second) and junior (third) years. This "accelerated" program allows our athletic training students to graduate a semester early, sit for the NATABOC examination before their counterparts at other universities and be more competitive for graduate assistantships, jobs and seats in other medical preparation programs.

Students enrolled in the ATEP take Practicum in Athletic Training (ERS 387) four times over four consecutive semesters to total 12 credits. This is the equivalent of a 12-credit internship. Instead of doing 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 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 will be required to spend at least one rotation off-campus with one of our approved certified athletic trainers at an affiliate site. Athletic training students are required to provide their own transportation to and from the affiliate site. Students are responsible for the cost of required uniforms and student liability insurance during the clinical experience. Many athletic training students have pursued external internships with the support of the faculty and staff. Some of these include internships with the Pittsburgh Steelers, Pittsburgh Pirates, 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.

Policy for Application to the Athletic Training Program

University acceptance to pursue the athletic training emphasis does NOT guarantee admission into the ATEP program.

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 (CAAHEP). 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 NATABOC certification examination.

Candidates for selection to the ATEP 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 ATEP will be required to verify they understand and meet these technical standards.

The Office of Social Equity will evaluate a student who states he/she could meet the program's technical standards as outlined in the Office of Social Equity policies.

The number of seats in the program is limited because of the faculty-to-student ratio recommended by the NATA. Formal application for the athletic training education program must be completed by March of the student's freshman (first) year on campus. Students who have been selected in the ATEP officially begin the program during the sophomore (second) year. 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. A cumulative QPA of 2.750 or above in athletic training emphasis courses and overall.
3. Completion of 50 hours of athletic training observation under a NATABOC athletic trainer (these 50 hours may be accumulated with the start of the fall semester of the students first year on campus). The 50 hours must also be verified by the supervising ATC being observed. Licensed physical therapists who also hold the ATC credential may be observed as well.
4. Active membership in the Slippery Rock University Athletic Trainers' Association.
5. Letter of application/intent, resume, and SRU transcript.
6. Letter of recommendation from the NATABOC athletic trainer who supervised the athletic training observation.
7. 500-word essay explaining "Why I want to become an athletic trainer."

Applicants will be ranked on the basis of QPA. 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 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.

Policy for Retention in the Athletic Training Program

Students who are admitted into the program are required to maintain or exceed a cumulative QPA and a final emphasis QPA of 2.750 throughout the remaining three years of the ATEP. Satisfactory clinical performance is also required. Additionally, students may not accumulate more than two grades of C or less in

athletic training professional courses taught within the Department of Exercise and Rehabilitative Sciences. Failure to maintain academic and clinical requirements will result in program probation and possible removal from the program as outlined in the SRU athletic training education program Policy and Procedure Manual.

Upon the recommendation of the faculty, the student on probation will be granted one semester to correct academic and/or clinical deficiencies. Students will not be permitted to pursue additional athletic training clinical experiences while on probation. If the academic and/or clinical deficiencies are not corrected to the satisfaction of the faculty and staff after the one semester of probation, the student will be formally suspended from the program.

Requirements for Athletic Training

ERS 107, 217, 264, 277 (taken two times), 317, 327, 337, 347, 351, 357, 375, 387 (taken 4 times), 407, 427, AHEA 101, 424, PSYC 105, 321, PHYS 201, MATH 114, BIOL 216, 217, CEDP 248, PESM 270.

Students who meet all of the program requirements are eligible to take the NATABOC certification examination administered by the NATABOC. Slippery Rock University graduates obtaining NATABOC certification are eligible for certification by the Pennsylvania State Boards of Medicine and Osteopathic Medicine.

Transfer Students and Upperclassmen

Because this program requires 3.5 full years (seven semesters and one summer) of coursework and clinical experience in a structured and sequenced curriculum, transfer students and upperclassmen declaring a major in athletic training are placed at the freshman level in the program. As for all other students, transfer students and upperclassmen must complete the above application process and coursework.

Degree Completion in 3.5 Years
Athletic Training (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ERS 107	3	ERS 217	3
ERS 264	3	ERS 277 (1)	3
AHEA 101	3	BIOL 216	3
PSYC 105	3	ERS 337	3
CEDP 248	3	ERS 277 (2)	3
MATH 114	3	ERS 387 (1)	3
Liberal Studies/Electives	16	BIOL 217	3
		Liberal Studies/Electives	9
Total Hours	*34*	*Total Hours*	*30*

Summer	*Hours*
ERS 347	3
ERS 357	3
Total Hours	*6*

Junior Year	*Hours*	*Senior Year*	*Hours*
ERS 317	3	ERS 387 (4)	3
ERS 327	3	ERS 427	3
ERS 387 (2)	3	ERS 375	3
PHYS 201	3	AHEA 424	3
ERS 387 (3)	3	Liberal Studies/Electives	3
ERS 407	3		
ERS 351	3		
PSYCH 321	3		
PESM 270	3		
Liberal Studies/Electives	8		
Total Hours	*35*	*Total Hours*	*15*
		Completion Hours	*120*

Minor in 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 24-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.

Requirements for the Minor in Adapted Physical Activity and Rehabilitation (24 credits)

Theory Core Courses: ERS 165, 235, 261, 265, 267, 275, 358, 368, 465, 466

Department of **Geography, Geology, and the Environment**

107 Spotts World Culture 724-738-2048

Chair

James Hathaway

Secretary

Bonnie Vinton

Faculty

Abigail Amissah-Arthur, Patrick Burkhart, Patricia Campbell, William Chapman, Thomas Hannon, James Hathaway, James Hughes, Jack Livingston, Robert Mathieu, Carolyn Prorok, Tamra Schiappa, Langdon Smith, Michael Stapleton, Michael Zieg

The Department of Geography, Geology, and the Environment offers a variety of field work-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.

Program in Geography

Ways of life in near and distant lands, environmental planning, regional development, resource management, mapmaking, remote sensing, and geographic information systems are just a few of the exciting topics that are covered in our geography programs. The department's programs may lead to an equally exciting diversity of employment opportunities. Some recent graduates have found employment conducting floodplain studies for a private consulting firm, administering land subdivision regulations for a county planning commission, developing a transportation plan for a state transportation department, designing a system of bikeways for a small city, doing store location research for a large retail chain, heading the cartography department of an engineering firm, working as an aerial photo analyst in the military, working for a travel agency, teaching, and pursuing graduate studies. Students are urged to visit the department office for further information and for a tour of the facilities.

Requirements for the Bachelor of Arts

Major: Geography (37 credits)

Specialization: Liberal Arts Geography

Core Courses (15 credits): G&ES 150, 302, 331, 444, 489

Regional Courses (select 9 credits from the following): G&ES 107 or 109, 201 or 202 or 204, 303 or 308 or 309

Technique Courses (7 credits - two required and one elective): G&ES 115, 220 or 325, 315

Elective G&ES Courses (select 6 credits at the 300 or 400 level)

Degree Completion in Four Years
Geography (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	ENGL 210	3
*G&ES 115, 150	4	COMM 200	3
*G&ES Regional 1xx	3	*G&ES 220 or 325	3
PESM 141	1	*G&ES Regional 2xx	3
Liberal Studies	15	*Language 101	3
		PESM or DANC	1
		Liberal Studies	13
Total Hours	*29*	*Total Hours*	*29*

Junior Year	*Hours*	*Senior Year*	*Hours*
*G&ES 302, 315, 331	9	*G&ES Elective 2	3
*G&ES Regional 3xx	3	*G&ES 444	3
*Language 102, 103	6	*G&ES 489	3
*G&ES Elective 1	3	Liberal Studies/Electives	22
Liberal Studies/Elective	10		
Total Hours	*31*	*Total Hours*	*31*
		Completion Hours	*120*

*Indicates course in major.

Requirements for the Bachelor of Science

Major: Geography (55 credits)

Specialization: Applied Geographic Technology

Core Courses (27 credits): G&ES 100, 135, 150, 215, 235, 302, 324, 331, 489

Technique Courses (13 credits): G&ES 115, 220, 315, 325, 425

Technique Elective (select 6 credits): G&ES 410 or 415 or PREE 412

Regional Elective (select 3 credits): G&ES 201 or 202 or 204 or 303 or 308 or 309

Elective G&ES Course (select 3 credits at the 200 level or above)

Degree Completion in Four Years
Applied Geographic Technology (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	ENGL 210	3
*G&ES 100, 115, 135, 150	10	COMM 200	3
PESM 141	1	*G&ES 215, 220, 235	9
Liberal Studies	12	PESM or DANC	1
		Liberal Studies	15
Total Hours	*29*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
ENGL 205	3	*G&ES 331, 425, 489	9
*G&ES 302, 315, 324, 325	12	*G&ES 410 or 415 or	
*G&ES Regional	3	PREE 412	3
Liberal Studies/Electives	12	*G&ES Elective	3
		Liberal Studies	15
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

*Indicates course in major.

Requirements for the Bachelor of Science

Major: Environmental Studies

See the Environmental Studies section.

Requirements for the Minor in Geographic Information Technology

Required Courses (21 credits): G&ES 220, 315*, 325*, 410, 415*, 425*, 450

*Check prerequisite

Requirements for the Minor in Geography

Required Courses (21 credits)

Group I: (select 6 credits) G&ES 150, 302, 331

Group II: (select 3 credits) G&ES 202, 301

Group III: (select 3 credits) G&ES 220, 315, 410

Electives: (9 credits)

Any three G&ES courses at the 200 level or above.

Program in Geology

The geology (BS) program, together with the programs of environmental science (BS) and environmental geoscience (BA), focus 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. The Department of Geography, Geology, and the Environment offers a BS and a minor in geology. Students who desire to combine interests in geology and other fields, such as business, recreation, environmental sciences, or language may elect the minimum BA curriculum and have room to take a second major or minor in another field.

To help students during their studies in the department, all environmental geoscience students are assigned a faculty advisor from the Department of Geography, Geology, and the Environment to assist them with curriculum development and upper-level course selection.

Requirements for the Bachelor of Science

Major: Geology (54 credits)

Required Core Courses (30 credits): EGEO 101, 102, 111, 112, 271, 272, 303, 304, 327, 351, 352, 362, 482

Elective Major Courses (10 credits): EGEO 241, 242, 360, 448, 451, 453, 460, 476, 498

Required Field Camp (4 credits): At an acceptable field station

Other Required Courses (14 credits): CHEM 108, 112, G&ES 325 or 410 MATH 230, PHYS 213.

Degree Completion in Four Years
Geology (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
EGEO 101, 111	4	EGEO 271, 272, 303, 304	7
EGEO 102, 112	4	PHYS 211	4
CHEM 107, 111	4	MATH 225	4
CHEM 108, 112	4	COMM 200	3
ENGL 101,103	6	ENGL 210	3
PESM 141	1	PESM or DANC	1
Liberal Studies	6	Liberal Studies/Electives	9
Total Hours	*29*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
EGEO 327, 351, 352, 362	14	EGEO 325 or 410, 482	4
PHYS 213	3	Major Electives	10
MATH 230	4	Liberal Studies/Electives	16
Liberal Studies	9		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Bachelor of Arts

Major: Environmental Geoscience (39 credits)

Required Courses (20 credits): EGEO 100 or 101, 102, 110 or 111, 112, 121, 201, 241, 271, 272

Electives (15 credits): Select from G&ES 325, 410, 425, MARS 362, any EGEO course above 200

Related courses (4 credits): CHEM 108, 112

Degree Completion in Four Years
Environmental Geoscience (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	PHYS 211	4
CHEM 107, 111	4	CHEM 108, 112	4
PESM 141	1	COMM 200	3
EGEO 100 or 101, 110 or 111	4	MATH 225	4
EGEO 102, 112	4	PESM or DANC	1
Liberal Studies	9	Language 101	3
		EGEO 121, 201, 241	10
		Liberal Studies	3
Total Hours	*28*	*Total Hours*	*32*

Junior Year	*Hours*	*Senior Year*	*Hours*
Language 102, 103	6	Major ELEC	
EGEO 271, 272	3	(select from list)	12
Major ELEC (select from list)	3	Liberal Studies/Electives	18
ENGL 210	3		
Liberal Studies	15		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Minor in Geology

Required courses (19 credits)

Geology Core (10 credits), EGEO 101, 102, 111, 112, 271

Geology electives (9 credits minimum)

a. At least three credits of geology courses at a level of 200 or higher.
b. At least six credits of geology courses at a level of 300 or higher.

Note: Electives should be chosen only after consultation with the chairperson of the Department of Environmental Geosciences.

Note: No more than six semester credits may count toward both a major and the geology minor.

Requirements for the Minor in Meteorology

Required Courses (18 credits)

Geology Core (12 credits)

EGEO 121, 221, 450

Elective Courses (6 credits)

EGEO 251, 340, 360

Note: No more than six semester credits may count toward both a major and the meteorology minor.

Note: Internship is arranged at a national weather service or other professional office. Students will be working with professional weather forecasters.

Requirements for the Teacher Certification in Earth and Space Science

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 geology 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.

Program in Environmental Science

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, 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 remeditating 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 takes four years of full time study to complete. Students with associate degrees and transfer students are welcome and could complete the program in less time based upon their prior classes taken. 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. There are many opportunities for students to work directly with the faculty on independent research projects.

To help students during their studies in the department, all environmental science students are assigned a faculty advisor from the Department of Geography, Geology, and the Environment to assist them with curriculum development and upper-level course selection.

Requirements for the Bachelor of Science

Major: Environmental Science (49-52 credits)

Required Core Courses (35 credits): EGEO 101, 102, 111, 112, 121, 201, 360, 451, BIOL 357, 401, CHEM 340 or 370, G&ES 324

Elective Major Courses (10 credits): BIOL 305, 306, CHEM 240, 270, 340, 370, 430, EGEO 231, 241, 327, 340, 448, 453, 460, 476, G&ES 315, 325, 410, MARS Summer Course

Required Internship or Research (3 credits from one of the following): ENVS 450 or 480

Other Required Courses (16 credits): BIOL 101, 325, CHEM 108, 112, 200, PHYS 213

Degree Completion in Four Years
Environmental Science (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
EGEO 101, 111	4	EGEO 121, 201	6
EGEO 102, 112	4	BIOL 101	3
CHEM 107, 111	4	CHEM 200	3
CHEM 108, 112	4	PHYS 211, 213	7
ENGL 101, 103	6	COMM 200	3
MATH 225	4	ENGL 210	3
PESM 141	1	PESM or DANC	1
Liberal Studies	3	Liberal Studies	3
Total Hours	*30*	*Total Hours*	*29*

Junior Year	*Hours*	*Senior Year*	*Hours*
EGEO 360	3	EGEO 451	4
BIOL 325, 357, 401	10	Major Electives	7
CHEM 340 or 370	4	G&ES 324	3
Major Elective	3	Liberal Studies/Electives	15
Liberal Studies	12		
Total Hours	*32*	*Total Hours*	*29*
		Completion Hours	*120*

*ENVS 450 or 480 must be completed during the summer after your Junior or Senior year.

Requirements for the Minor in Environmental Science

Required courses: (24 credits)

Environmental Science Core (9 credits): EGEO 121, BIOL 100, 101

Elective Courses (15 credits—at least six credits are to be at the 300 or higher level): BIOL 305, 306, 355, CHEM 200, 240, 270, 340, 370, 430, EGEO 201, 231, 340, 360, 448, 451, 453, 460, 476, G&ES 324

Note: Of the required and elective courses listed, no more than six credit hours may be counted toward both the environmental science minor and a major.

Program in Environmental Studies

Environmental studies introduces students to environmental problems confronting contemporary society and examines these problems from various disciplinary points of view. An important goal of the program is for students to understand the relationships that exist between social, behavioral, and environmental systems. Students in environmental studies are required to take courses in the social and natural sciences. Elective courses within the program permit students to pursue their interests in greater depth. Students examine environmental problems in their physical and geographic context and relate them to historical, political, and economic conditions. 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.

Environmental studies majors have completed internships with federal, state, and local governments, non-profit organizations, and in the private sector. In many of these cases, students obtained employment in a similar line of work after graduation. In several cases, the organization with which the student interned hired the student after graduation.

Graduates have found success in a diverse range of professional and academic pursuits, including: regional planner, environmental scientist, geographic information specialist, geography teacher, environmental recreation officer, land information specialists, and cartographer.

There are numerous activities available for environmental studies students. Planet Keepers is an organization for students interested in environmental studies. There is also a geography and environmental studies club. In recent years students have gone on field trips to visit the LTV steel mill and Rock and Roll Hall of Fame in Cleveland; the Modern Museum of Art and Greenwich Village in New York City; camped at Hocking Hills State Park and toured the Native American Mound Region in southern Ohio. Students have accompanied faculty to professional meetings at Chicago, Toronto, Charlotte, Pittsburgh, Los Angeles, and New Orleans and worked on research projects with several faculty.

Students intending to enter the environmental studies program should contact the chairperson for the assignment of an academic advisor to assist in scheduling, career planning and other matters.

Requirements for the Bachelor of Science

Major: Environmental Studies (55 credits)

Social Science Core Courses (22 credits): G&ES 115, 135, 150, 235*, 489, G&ES/POLS 324, ECON 315, or G&ES 331, PHIL 324

Natural Science Core Courses (9 credits): Select three courses from the following: EGEO 100, BIOL 105, CHEM 107*, PHYS 204 or approved more advanced courses related to the environmental field from three of the above departments.

Research Skills (12 credits)

Group I: G&ES 220, 315*, 325*

Group II: Select one of the following courses: MATH 114, PSYC 221, SASW 317

Elective Courses (12 credits)

Select four courses from the following: AHEA 218, 310*, 318*, 348*, BIOL 120, 207, 208, 305, 306, CHEM 270*, 340*, 370*, ECON 315, EGEO 121, 131, 201, 231*, 340*, 451*, ENGL 205*, 410, G&ES 215, 244, 245, 255*, 331, 498, HIST 445, Marine Science courses as approved by the chair, POLS 200, PREE 213, 412, PSYC 189

*Check course prerequisite(s)

Environmental Studies students are required to perform 100 service-learning hours of their choosing.

None of the courses listed above can be counted in the liberal studies program by environmental studies majors.

Degree Completion in Four Years
Environmental Studies (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	ENGL 210	3
*G&ES 115, 135, 150	7	COMM 200	3
*Science Core (2)	6	*G&ES 220, 235	6
PESM 141	1	*Science Core	3
Liberal Studies	12	ECON 202 (LS)	3
		PESM or DANC	1
		Liberal Studies	12
Total Hours	*32*	*Total Hours*	*31*
Junior Year	*Hours*	*Senior Year*	*Hours*
*G&ES 315, 325	6	*G&ES 324, 489	6
*Statistics	3	*Major Electives (2)	6
*Major Electives (2)	6	PHIL 324	3
ECON 315 or G&ES 331	3	Electives (Minor)	12
Liberal Studies	9	Liberal Studies	3
Total Hours	*27*	*Total Hours*	*30*
		Completion Hours	*120*

*Indicates course in major.

Program in 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 Wallops Island Marine Science Center, 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 Wallops Island Marine Science Center. 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 advisor, and the Department of Biology offers a minor in Marine Biology.

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 Wallops Island Station. Several research and training vessels are available for work along the Atlantic coast and the Chesapeake Bay. Some courses offered at the Marine Science Center 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 advisors.

Department of **Mathematics**

229 Vincent Science Hall 724-738-2061

Chair

Robert Buck

Secretary

Debra Dickey

Faculty

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 conductive 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, 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, Elementary School Mathematics, and Middle School Mathematics. Certificates* are available in Elementary School Mathematics and Middle School Mathematics. *This is not related to Pennsylvania State Certification.

Requirements for the Bachelor of Arts
Major: Mathematics (40 credits)

Required courses: MATH 131*, 225*, 230*, 231, 235*, 240, 309, 313, 314, 491, a three-hour independent study thesis, and at least 6 credits of electives from mathematics courses 300 and above. In addition, candidates for the bachelor of arts degree must satisfactorily complete, either by placement or by coursework, the first three semesters of a foreign language.

*Minimum grade of C required.

Degree Completion in Four Years Mathematics (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
MATH 131, 225, 230, 235	14	MATH 231, 240, 309	10
ENGL 101, 103	6	COMM 200	3
PHIL 103	3	GERM 103	3
GERM 101, 102	6	CPSC 140	3
PESM 141	1	Liberal Studies/Electives	11
Total Hours	*30*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
MATH 313, 314, 491	7	MATH 490, 491	4
MATH Electives	6	MATH Electives	9
Liberal Studies/Electives	14	Liberal Studies/Electives	17
ENGL 210	3		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Bachelor of Science
Major: Mathematics (45 credits)

Required courses: MATH 131*, 225*, 230*, 231, 235*, 240, 309, 313, 314, 491 (two one-hour seminar courses), CPSC 140 or 180 and at least 12 credits selected from approved mathematics courses numbered 300 or above. In addition, the requirements in a special interest area, ranging from 14 to 16 credit hours, or a minor in the area of special interest must be completed. The special interest area may be chosen from actuarial science, biology, chemistry, community health, computer science, economics, education, finance, geology, mathematics graduate school, philosophy, physics, pre-masters of business administration, psychology, sociology, or statistics.

*Minimum grade of C required.

Degree Completion in Four Years Mathematics (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
MATH 131, 225, 230, 235	14	MATH 231, 240, 309	10
ENGL 101,103	6	COMM 200	3
PHIL 103	3	CPSC 140	3
Liberal Studies/Special Interest	7	Liberal Studies/ Special Interest	14
Total Hours	*30*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
MATH 313, 314, 491	7	MATH 491	1
MATH Electives	6	MATH Electives	12
ENGL 210	3	Liberal Studies/	
Liberal Studies/Special Interest	14	Special Interest	17
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Minor in Mathematics

MATH 225, 230, 231, and completion of one of the following tracks:

A. Pure Mathematics Track: MATH 235 and at least two of: MATH 304, 307, 309, 313, 314, 320, 325, 326
B. Applied Mathematics Track: MATH 240 and at least two of: MATH 301, 302, 307, 309, 311, 315, 331

Requirements for the Minor in Statistics

MATH 114, 214, 307, 308 and at least 12 credits from: AHEA 312, 313; BIOL 325; CPSC 220, 240; ECON 318, MATH 225, 230, 231; PSYC 221, 421 with at least two from the same department. No more than six credits (none at the 300-400 level) may count toward both a mathematics major and a statistics minor.

Requirements for the Minor in Elementary School Mathematics

MATH 118, 210, 310; ELEC 342 and at least three additional courses from MATH 113, 114, 122, 125, 131, 214

Requirements for the Minor in Middle School Mathematics

MATH 210, 225, 310; ELEC 342 and either MATH 118 or 304. Two additional courses are required, at least one from Group A.

Group A: MATH 131, 214, 230, 235, 240, 311, 320
Group B: MATH 113, 114, 122

Certificate in Elementary School Mathematics*

MATH 118 and at least four additional courses from: MATH 113, 114, 122, 125, 131, 214

Note: Admission restricted to certified teachers who have completed the equivalent of MATH 210, MATH 310, AND ELEC 342.

*This is not related to Pennsylvania State Certification.

Certificate in Middle School Mathematics*

MATH 225 and either MATH 118 or 304, and at least three additional courses from: (at least one course must be from Group A)

Group A: MATH 131, 214, 230, 235, 240, 311, 320
Group B: MATH 113, 114, 122

Note: Admission restricted to certified teachers who have completed the equivalent of MATH 210, MATH 310, AND ELEC 342.

*This is not related to Pennsylvania State Certification.

Requirements for the Teacher Certification in Mathematics

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.

Residency Requirement for Mathematics Majors

To earn a Bachelor of Science or Bachelor of Arts degree in mathematics, all students must complete a minimum of 12 credit hours of mathematics courses at the 300 level or above at Slippery Rock University.

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.

Department of **Nursing**

119 Behavioral Science Building 724-738-2065/2324

Chair

Kit Kellinger

Secretary

Joanne Santus

Faculty

Judith DePalma, Hazel Hadden, Kit Kellinger, Ruth Ann Miller, Ramona Nelson, Joyce Penrose, Kerry Risco

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 clinical nursing courses, students must have completed all lower division requirements or have direct articulation. For students transferring in 63 or more non-remedial college credits, the curriculum for the program includes free electives, two required supportive course, and courses in the nursing major. For students with less than 63 transfer credits, the curriculum also includes a liberal studies component. The nursing curriculum includes theoretical and clinical

content. The flexibility of the program enables the registered nurse to attend school on a part-time or full-time basis. Nursing courses are web-based an available to nursing students anytime, anywhere. The purpose of the program is to prepare beginning 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 QPA on entry to the nursing major and must maintain the 2.500 QPA throughout the nursing program from entry to exit. The students must have and maintain BOTH the cumulative 2.500 QPA and the nursing major 2.500 QPA. Students can elect to obtain a school nurse certificate, a minor or certificate in health care informatics, or a certificate in case management while completing their BSN. Other minors can also be pursued while enrolled in the BSN program.

Requirements for the Bachelor of Science in Nursing

Major: Nursing (63 credits)*

Core Courses

NURS 311, 312, 313/314, 322, 327/328, 408, 416/417, 422, 426/427

Nursing Electives (9 credits from the following): NURS 311, 412/413, 415, 429, 498 (elected Topics), 510, 511, 395/595

Required Non-Nursing Courses (6 credits): SASW 317, PHIL 325

30 of these credits are granted through advanced placement following direct articulation. (Successful completion of the NCLEX-RN).

Degree Completion in Two Years (for students having met the liberal studies requirement) Nursing (BSN)

Junior Year	*Hours*
NURS 311	3
NURS 312	3
NURS 313/314	3
NURS 322	3
NURS 327/328	3
NURS Elective	3
PHIL 325	3
Electives*	6
Total Hours	*27*

Senior Year	*Hours*
NURS 408	3
NURS 416/417	3
NURS 422	3
NURS 426/427	3
NURS Electives	3
SASW 317	3
General electives to complete 120 total hours	
Total Hours	*18 + any needed electives to complete a total of 120 hrs*

*Electives depend on number of transfer credits.

Requirements for School Nurse Certification

Through careful selection of electives, nursing majors can qualify for certification as a school nurse by taking the following: NURS 412, 415, SPED 100 or SPED 105

In addition, the student must have two courses in college English (6 credits), two courses in college math (6 credits – one course can be Statistics), and a minimum QPA of 2.80.

Requirements for Certificate in Case Management

Through careful selection of electives, nursing majors can obtain a certificate in Case Management while completing their BSN.

Requirements for the Minor and Certificate in Health Care Informatics

See the Health Care Informatics Section.

Academic Standing

BSN majors must attain a grade of C or better in all nursing major theory courses and pass all practica. In the event that a final course grade of C or practicum grade of P is not attained, the course and/or practicum may be repeated one time. Failure to achieve the required theory or practicum grade on the second attempt will result in the removal of the student from the nursing major.

Department of **Parks and Recreation/ Environmental Education**

101 Eisenberg Building 724-738-2068

Chair
Bruce Boliver

Secretary
Brenda Fedokovitz

Faculty
Bruce Boliver, Bruno Borsari, Colleen Cooke, Steven Doherty, Daniel Dziubek, Deborah Hutchins, Paulette Johnson, Christopher Leininger, John Lisco, Randall Pitstick, Dale Stewart, Lalanda Stromp

The Department of Parks and Recreation/Environmental Education offers a diverse academic program. The bachelor of science in parks and recreation offers three options: park and resource management, resort recreation management/ tourism, and therapeutic recreation services.

The department cooperates closely with a number of government and private agencies and organizations in an effort to provide quality academic and practicum experiences. Special study opportunities in interpretive services, park law enforcement, and park and open space planning are available. A cooperative education program, which permits students to alternate semesters of work and study, is available in cooperation with the U.S. Army Corps of Engineers and National Park Service.

The Seasonal Ranger Training Program qualifies students for seasonal law enforcement commissions with the National Park Service, U.S. Fish and Wildlife Service, and other park agencies.

The department cooperates in the operation of the Robert A. Macoskey Center for Sustainable Systems Education and Research. Cooperative agreements with a variety of resort and 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 department's programs are currently employed in positions within the park, recreation and environmental education fields. Many are serving as resort recreation directors, YMCA directors, therapeutic recreation specialists, national and state park rangers and managers, park naturalists, outdoor recreation planners, environmental educators, and other similar positions.

All parks and recreation and non-teaching certified environmental education majors must qualify for department advanced standing prior to enrollment in PREE 450. A copy of the requirements for advanced standing is available in the department office.

Program in Parks and Recreation

Requirements for the Bachelor of Science
Major: Parks and Recreation/Environmental Education (60 credits)

Requirements for All Specializations
Core Courses (27 credits): PREE 110, 120, 207 or CPSC 110 (RRM/T), PREE 318, 415, and 450
(Therapeutic Recreation Specialization (24 credits) does not require 207 or CPSC 110)
Track Courses (33-36 credits)
Professional Electives (7 credits selected in consultation with advisor)

Specialization in Park and Resource Management (33 credits)
PREE 170, 211, 213, 260, 261, 313, 347, 351, 372, 377, 378, 475. Elective tracks in park and open space planning, park law enforcement, environmental education/interpretation, and outdoor leadership.

Specialization in Resort Recreation Management/Tourism (33 credits)
PREE 215, 230, 234, 311, 316, 351, 411, 416, 436, ACCT 205 or 209, and MRKT 230

Specialization in Therapeutic Recreation Services (36 credits)
PREE 220, 229, 232, 233, 319, 320, 351, 420, 423, ERS 264, 375, and CEDP 248

Degree Completion in Four Years Park and Resource Management

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
PREE 110, 120, 170, 207	12	PREE 213, 260, 261	9
ENGL 101, 103 (LS)	6	COMM 200 (LS)	3
Liberal Studies	9	PESM (LS)	2
		Liberal Studies	15
Total Hours	*27*	*Total Hours*	*29*
Junior Year	*Hours*	*Senior Year*	*Hours*
PREE 313, 347, 372, 378	12	PREE 318, 377, 415, 475	12
Liberal Studies	12	PREE Electives	7
PREE 351 (summer)	3	Liberal Studies	6
		PREE 450 (summer)	12
Total Hours	*27*	*Total Hours*	*37*
		Completion Hours	*120*

Degree Completion in Four Years
Resorts Recreation Management/Tourism

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
PREE 110, 120, 215	9	PREE 230, 234	6
ENGL 101, 103 (LS)	6	CPSC 110	3
Liberal Studies	12	COMM 200 (LS)	3
		PESM (LS)	2
		Liberal Studies	15
Total Hours	*27*	*Total Hours*	*29*
Junior Year	*Hours*	*Senior Year*	*Hours*
PREE 313, 316, 411	9	PREE 318, 415, 416, 436	12
ACCT 205	3	PREE Electives	7
MRKT 230	3	Liberal Studies	6
Liberal Studies	9	PREE 450 (summer)	12
PREE 351 (summer)	3		
Total Hours	*27*	*Total Hours*	*37*
		Completion Hours	*120*

Degree Completion in Four Years
Therapeutic Recreation

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
PREE 110, 120, 232	9	PREE 220, 229, 233	9
ENGL 101, 103 (LS)	6	CEDP 248	3
Liberal Studies	12	COMM 200 (LS)	3
		PESM (LS)	2
		Liberal Studies	12
Total Hours	*27*	*Total Hours*	*29*
Junior Year	*Hours*	*Senior Year*	*Hours*
PREE 319, 320	6	PREE 318, 415, 420, 423	12
ERS 264, 375	6	PREE Electives	7
Liberal Studies	12	Liberal Studies	6
PREE 351 (summer)	3	PREE 450 (summer)	12
Total Hours	*27*	*Total Hours*	*37*
		Completion Hours	*120*

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.

Therapeutic Recreation Certification Requirements:

In addition to the 60 credits required in the Therapeutic Recreation major both PSYC 105 and 276 must be completed by the student to be eligible to take the NCTRC Certification Exam.

Requirements for the Bachelor of Science in Education

Major: Environmental Education

See the Environmental Education section.

See also Teacher Education Policy Manual, available in 105 McKay Education Building.

Program in Environmental Education

Coordinator

Daniel Dziubek

Pennsylvania Center for Environmental Education Director

Paulette Johnson

The degree program in environmental education is administered by the Department of Parks and Recreation/Environmental Education. It provides K-12 teacher certification in environmental education and is the only four-year degree program in environmental education within the Commonwealth of Pennsylvania. A non-certification option is also available. Students receive practicum and other experiences from a wide variety of public and private education programs, including the McKeever Environmental Learning Center, operated by Slippery Rock University, and the Jennings Environmental Education Center, operated by the Pennsylvania Bureau of State Parks. Special opportunities are provided through many programs such as Project Learning Tree, Project WILD, and Keystone Aquatic Resource Education, and a number of other nationally recognized environmental education curricula.

Graduates are currently serving as teachers, environmental education coordinators, environmental center directors, park naturalists and interpretive specialists, conservation district executives, and administrators in a variety of educational and resource-oriented agencies.

Requirements for the Bachelor of Science in Education
Major: Environmental Education (60 credits)

Required Professional Education Courses (39 credits)
CEDP 248, 342, ELEC 320, 332, 362, PREE 455, SEFE 200, 230, 270, 380.

Required Environmental Education Courses (21 credits)
G&ES 135, PREE 160, 260, 261, 351, 361, 464

Professional Electives (7 credits selected in consultation with advisor)

*Non-certification majors take PREE 450 (Internship) instead of PREE 455 (Student Teaching.)

Note: Admission to and retention in this teacher education program are prerequisites for teacher education coursework; minimum QPA and major QPA prerequisites also apply. See Teacher Education Policy Manual, available in 105 McKay Education Building and on the College of Education homepage.

Department advanced standing status is required for non-teaching certification students prior to enrollment in PREE 450. Details are available in the Department of Parks and Recreation/Environmental Education or from the student's advisor.

For other degree programs administered by the Department of Parks and Recreation/Environmental Education see the Parks and Recreation section.

Degree Completion in Four Years
Environmental Education
(BSEd with or without Certification Option)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
PREE 160	3	PREE 260, 261	6
SEFE 200	3	SEFE 230	3
ENGL 101, 103	6	CEDP 248	3
G&ES 135	3	COMM 200	3
Liberal Studies	12	PESM (LS)	2
		Liberal Studies	12
Total Hours	*27*	*Total Hours*	*29*

Junior Year	*Hours*	*Senior Year*	*Hours*
PREE 361, 464	6	ELEC 320, 332, 362	9
SEFE 270, 380	6	PREE Electives	7
CEDP 342	3	Liberal Studies	3
Liberal Studies	15	PREE 455 (with cert.)	12
PREE 351 (summer)	3	or	
		PREE 450 (without cert.)	
Total Hours	*33*	*Total Hours*	*31*
		Completion Hours	*120*

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.



Pennsylvania Center for **Environmental Education**

Executive Director

Paulette Johnson 724-738-4555

Slippery Rock University serves as the designated host site for the Pennsylvania Center for Environmental Education, a program designed to facilitate the implementation of environmental education statewide. The center was created by an executive order by the governor in late 1996. In addition to the State System of Higher Education, other executive committee members include: Pennsylvania Alliance for Environmental Education, Pennsylvania Association of Conservation Districts Inc., Pennsylvania Business & Industry Coalition of Environmental Education, Department of Agriculture, Pennsylvania Department of Community and Economic Development, Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Department of Education, Pennsylvania Department of Environmental Protection, Pennsylvania Department of Health, Pennsylvania Fish and Boat Commission, Pennsylvania Game Commission and Pennsylvania Wild Resource Conservation Board. The center is working toward facilitating sustainable environmental education, creating partnerships that enhance cooperation between state agencies, business and industry, and non-government programs dealing with various segments of the commonwealth's environmental health. It will also assist in securing funding for environmental education programs throughout the state.

Department of **Psychology**

226 Vincent Science Hall 724-738-2077

Chair

Richard Port

Secretary

Linda Newton

Faculty

Mohammad Akhtar, Gayle Brosnan-Watters, Catherine Massey, Chris L. Niebauer, Richard Port, Ann Romanczyk, Jennifer Sanftner

Psychology is the science of behavior. The discipline is experiencing unprecedented growth and change. This is an important and exciting science, which 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, and 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 the Psychology Club, which invites speakers to campus and organizes field trips as well as opportunity 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.

Requirements for the Bachelor of Arts
Major: Psychology (30 credits)

Required core courses
PSYC 105, 201, 221, 303 or 338, 325, 326
Core Electives
A minimum of 4 courses from the following: PSYC 276, 306, 311, 344, 360, 377

Other courses are selected in consultation with the advisor from the Department of Psychology.

Degree Completion in Four Years
Psychology (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
PSYC 105, 201	4	PESM Activity	1
PESM 141	1	PSYC 221	3
MUSI 101	3	ENGL 210	3
G&ES 100	3	CEDP 248	3
POLS 103	3	BIOL 101	3
HIST 152	3	CHEM 104	3
EGEO 100	3	HIST 203	3
Electives	6	Electives	9
Total Hours	*32*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
PSYC 276, 311, 344, 377	12	PSYC 338, 306, 360, 450	15
ENGL 214	3	PSYC Elective	3
MATH 114	3	Electives	7
AHEA 311	3		
SPAN 101, 102	6		
Electives	5		
Total Hours	*32*	*Total Hours*	*25*
		Completion Hours	*120*

Requirements for the Bachelor of Science
Major: Psychology (36 credits)

Required core courses: PSYC 105, 201, 221, 303 or 338, 325, 326, 450
Core Electives: A minimum of 4 courses from the following: PSYC 276, 306, 311, 344, 360, 377

Other courses are selected in consultation with the advisor from the Department of Psychology.

Degree Completion in Four Years
Psychology (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
PSYC 105, 201	4	PESM Activity	1
PESM 141	1	PSYC 221, 325, 326	7
MUSI 101	3	ENGL 210	3
G&ES 100	3	SASW 201	3
POLS 103	3	CEDP 248	3
HIST 152	3	BIOL 101	3
EGEO 100	3	CHEM 104	3
Electives	6	HIST 203	3
		Elective	3
Total Hours	*32*	*Total Hours*	*32*

Junior Year	*Hours*	*Senior Year*	*Hours*
PSYC 276, 311, 344, 377	12	PSYC 338, 450, 306, 360	15
ENGL 214	3	PSYC Elective	3
MATH 114	3	Electives	6
AHEA 311	3		
Electives	11		
Total Hours	*32*	*Total Hours*	*24*
		Completion Hours	*120*

Requirements for the Minor in Psychology
Required courses (15 credits): PSYC 105 and 12 credits of elective psychology courses, 6 credits of which must be at the 300 or 400 level

School of **Physical Therapy**

Physical Therapy Building 724-738-2080

Chair
Carol Martin-Elkins

Secretary
Diane Carion

Faculty
Barbara Billek-Sawhney, Mary Ann Holbein-Jenny, Chris Hughes, Susan Kushner, Carol Martin-Elkins, Meg Michaels, Timothy Smith, Rege Turocy

Program in Physical Therapy – 3+3

The College of Health, Environment, and Science offers a 3+3 program 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) meets the requirements for the undergraduate degree. Approved undergraduate majors in Biology, Allied Health, and Exercise Science are available for the 3+3 option. Other majors also require that DPT admission criteria be met.

Only Slippery Rock University students are eligible for this 3+3 option.

Highlights of the DPT Program at Slippery Rock University:

- Program is eight semesters in length, three years plus two summers.
- Strong foundation in basic sciences, including two semesters of cadaver anatomy, neuroscience, and pathophysiology.
- Four semesters of research culminating in a group thesis.
- Two semesters of clinical residencies 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.

Degree Completion in Six Years
Health Science (Community Health) (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
AHEA 210	3	AHEA 262, 314	6
ENGL 101, 103	6	COMM 200	3
BIOL 216, 217	6	CHEM 107, 108	6
PSYC 100 or 105	3	CHEM 111, 112	2
MATH 125	3	ENGL 210	3
PESM 141	1	PSYC 240 or 344 or 377	
PESM	1	or 300 or 338	3
Liberal Studies	6	Liberal Studies	6
Total Hours	*29*	*Total Hours*	*29*

Junior Year	*Hours*	*Senior Year*	*Hours*
AHEA 301, 309, 312, 313, 410	15	DEFINED BY THE DPT PROGRAM	
PHYS 201, 202	8		
Liberal Studies	9		
Total Hours	*32*		

Degree Completion in Six Years
Health Science (Health Services Administration) (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
AHEA 111	3	AHEA 231	3
BIOL 216, 217	6	CHEM 107, 108, 111, 112	8
ENGL 101, 103	6	COMM 200	3
PSYC 100 or 105	3	ENGL 210	3
MATH 114	3	MGMK 250	3
PESM/DANCE	2	PSYC 240, 244, 277, 300	3
Liberal Studies	6	or 338	
		Liberal Studies/Electives	7
Total Hours	*29*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
AHEA 332, 433, 436, 437, 439	15	DEFINED BY THE DPT PROGRAM	
PHYS 201, 202	8		
Liberal Studies/Elective	9		
Total Hours	*32*		

Degree Completion in Six Years
Health Science (Safety and Environmental Management)(BS)

Freshman Year	*Hours*
AHEA 118	3
BIOL 216, 217	6
ENGL 101, 103	6
PSYC 100 or 105	3
MATH 114	3
PESM/DANCE	2
Liberal Studies	6
Total Hours	*29*

Sophomore Year	*Hours*
AHEA 218, 338	7
CHEM 107, 108, 111, 112	8
COMM 200	3
ENGL 210	3
PSYC 240, 244, 277, 300 or 338	3
Liberal Studies/Electives	6
Total Hours	*30*

Junior Year	*Hours*
AHEA 318, 328, 368, 448	13
PHYS 201, 202	8
Liberal Studies/Elective	10
Total Hours	*31*

Senior Year	*Hours*
DEFINED BY THE DPT PROGRAM	

Degree Completion in Six Years
Biology (BA)

Freshman Year	*Hours*
BIOL 104, 201	8
CHEM 107, 108, 111, 112	8
ENGL 101, 103, 210	9
PESM/DANCE	2
CPSC	3
Liberal Studies/Electives	6
Total Hours	*36*

Sophomore Year	*Hours*
BIOL 212, 250	8
CHEM 201, 202, 211, 212	8
COMM 200	3
MATH 125	4
LANGUAGE	3
Liberal Studies/Electives	9
Total Hours	*35*

Junior Year	*Hours*
BIOL 330, 340, 410	9
PHYS 201, 202	8
LANGUAGE	6
Liberal Studies/Electives	12
Total Hours	*35*

Senior Year	*Hours*
DEFINED BY THE DPT PROGRAM	

Degree Completion in Six Years
Biology (BS)

Freshman Year	*Hours*
BIOL 104, 201	8
CHEM 107, 108, 111, 112	8
ENGL 101, 103, 210	9
PESM/DANCE	2
CPSC	3
Liberal Studies/Elective	6
Total Hours	*36*

Sophomore Year	*Hours*
BIOL 212, 250	8
CHEM 201, 202, 211, 212	8
COMM 200	3
MATH 125, 225	8
Liberal Studies/Elective	9
Total Hours	*36*

Junior Year	*Hours*
BIOL 330, 340, 410	9
PHYS 211, 213	7
CHEM 335	3
Liberal Studies/Elective	12
Total Hours	*31*

Senior Year	*Hours*
DEFINED BY THE DPT PROGRAM	

Degree Completion in Six Years
Exercise Science (BS)

Freshman Year	*Hours*
ERS 100, 264	6
ENGL 101, 103	6
CHEM 107, 108, 111, 112	8
PESM 141	1
PESM	1
Liberal Studies	12
Total Hours	*34*

Sophomore Year	*Hours*
ERS 273, 375	6
PHYS 201, 202	8
BIOL 216, 217	6
COMM 200	3
PYSC 105	3
Math	3
Liberal Studies	6
Total Hours	*35*

Junior Year	*Hours*
ERS 351, 376, 377, 474, 475, 484, 493, 561	24
AHEA 424	3
PYSC	3
Liberal Studies	6
Total Hours	*36*

Senior Year	*Hours*
DEFINED BY THE DPT PROGRAM	

College of **Humanities, Fine and Performing Arts**

104 Strain Behavioral Science Building 724-738-4863

Dean
William McKinney

Assistant to the Dean
Diana Dreyer

Administrative Assistant
Helen Forsythe Kirk

Secretary
Amy McCamey

Departments
Art
Dance
English
History
Modern Languages and Cultures
Music
Philosophy
Theatre

Program
Women's Studies

Gallery
The Martha Gault Art Gallery is named in honor of the long time chairperson of the Slippery Rock University Art Department who oversaw the initial development of the department. The gallery features a series of exhibitions during the academic year and summer exhibition. The program includes all media and artists, ranging from those of special local interest to those of regional and national reputation, and a student show in April.

Programs and courses in the College of Humanities, Fine and Performing Arts acquaint students with those broad and representative fields of knowledge and intellectual skills vital for the function of a free society. All students complete liberal studies courses within the College. These courses provide the foundation for a rewarding private life and intelligent participation in society, while providing the framework for a variety of careers in an ever-changing economy.

The College of Humanities, Fine and Performing Arts offers formal programs of study leading to baccalaureate degrees. The College's degree programs give students the opportunity to encounter a broad range of questions and ideas focusing on human responses to moral, historical, aesthetic, creative and philosophical problems. Dedicated to learning in the liberal arts tradition, the humanities and fine arts provide an excellent basis for rewarding and productive careers. Disciplines include art, dance, English, history, modern languages and cultures, music, philosophy, theatre, and women's studies.

Department of **Art**

Art Building I 724-738-2020

Chair
Thomas Como

Secretary
Marion Kennedy

Faculty
Glen Brunken, J. Robert Bruya, Thomas Como, June Edwards, Kurt Pitluga, Jon Shumway, 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

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 art vocations.

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.

Requirements for the Bachelor of Arts
Major: Art (39 credits)

Required Courses: Art History (6 credits): ART 225, 226
Studio Courses (33 credits): 3 credits ART 105
3 credits from ART 100, 101
6 credits from ART 106-112, 114
9 credits selected from ART 205, 206, 207, 208, 209, 210, 211, 212, 213, 214
6 credits selected from ART 305, 306, 307, 308, 309, 310, 311, 312, 313, 314
6 credits selected from ART 405, 406, 407, 408, 409, 410, 411, 412, 413, 414
9 credits of a modern language or competency at the 103 level

Degree Completion in Four Years
Art (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ART 105	3	ART 205-214 (choose 2)	6
ART 100, 101	3	ART 225 & 226	6
ART 106-112, 114	6	ENGL 210	3
ENGL 101, 103	6	COMM 200	3
Language 101	3	Liberal Studies	6
Liberal Studies	9	Electives	6
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
ART 205-214 (choose 1)	3	ART 404-414 (choose 2)	6
ART 305-314 (choose 2)	6	Liberal Studies	15
Language 103	3	Electives	9
PESM Activity (2)	2		
Liberal Studies	13		
Electives	3		
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Bachelor of Fine Arts
Major: Art (75 credits)

Required Courses: Art History (6 credits): ART 225, 226
6 credits selected from ART 325, 335, 345, 365, 420
Art Seminar (3 credits): ART 300
Studio Courses : 9 credits selected from ART 100, 101, 105
9 credits selected from ART 106, 112, 114
12 credits selected from ART 205, 206, 207, 208, 209, 210, 211, 212, 213, 214
12 credits selected from ART 305, 306, 307, 308, 309, 310, 311, 312, 313, 314
9 credits selected from ART 405, 406, 407, 408, 409, 410, 411, 412, 413, 433, 434
3 credits selected from ART 425, 426, 427, 428, 429, 430, 431, 432, 433, 434
6 credits Art electives 300/400 level ART classes

Degree Completion in Four Years
Art (BFA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ART 100, 101	6	ART 205-214 (choose 4)	12
ART 106-112, 114 (choose 3)	9	ART 225 or 226	3
ART 105	3	ENGL 210	3
ART 225 or 226	3	COMM 200	3
ENGL 101, 103	6	ART Elective	3
Liberal Studies	3	Liberal Studies	6
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
ART 305-314 (choose 4)	12	ART 404-414	9
ART 325, 335, 345, 355 365, 420	3	ART 325, 335, 345, 355 365, 420	3
ART 300	3	ART 425 or 434	3
PESM Activity (2)	2	ART Elective	3
Liberal Studies	9	Liberal Studies	12
Elective			1
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Minor in Art (21 credits)
3 credits selected from ART 105, 106, 107, 108, 114
3 credits selected from ART 109, 110, 111, 112
3 credits selected from ART 225, 226, 325, 335, 345, 355, 365, 420
6 credits selected from ART 205, 206, 207, 208, 209, 210, 211, 212, 213, 214
6 credits selected from ART 305, 306, 307, 308, 309, 310, 311, 312, 313, 314

Requirements for the Minor in Art History (21 credits)
Required Courses: Art 225, 226
Elective Courses: 9 credits selected from ART 325, 335, 345, 355, 365

Requirements for the Minor in Art for Elementary Education Majors (21 credits)
Required Courses: Art 105, 225, 317 and 3 credits selected from ART 106, 107, 108, 114
3 credits selected from ART, 110, 111, 112
3 credits selected from ART 205, 206, 207, 208, 209, 210, 211, 212
3 credits selected from ART 305, 306, 307, 308, 309, 310, 311, 312, 313

Department of **Dance**

110 Morrow Field House 724-738-2036

Chair
Nora Ambrosio

Secretary
Judy Morris

Staff Musician
David Ledbetter

Faculty
Nora Ambrosio, Thom Cobb, Jennifer Keller, Nola Nolen, Ursula Payne

"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

The faculty of the Department of Dance at Slippery Rock University promotes dance as an academic discipline, a means of expression and an art form. The Department of Dance has a modern dance focus and is dedicated to the total development of each student: physically, emotionally, socially, and intellectually. Through excellent educational experiences in performance, choreography and teaching, with additional components of wellness and technology, the department prepares students for advancement in their chosen field of study.

Slippery Rock University Dance Theatre is the dance company in residence at SRU. SRU's Dance Theatre performs 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, the Eastern District Association Conference as well as performs many lecture/demonstrations at area and regional high schools, senior centers and other locations. Dance majors have also traveled to Europe where they have performed in Lyon, France and London, England.

The dance honor society, Sigma Rho Delta, is opened to dance majors who meet the membership criteria.

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 a major dance venue in Washington D.C., and working as a student assistant at a major dance center in New York City.

The Department of Dance is an accredited member of the National Association of Schools of Dance.

Requirements for the Bachelor of Arts

Core Courses: (36 credits): DANC 100, 101, 199, 200, 216, 223, 224, 300, 318, 323/350, 324, 326, 419, 425

Technique Courses: (22 credits): DANC 220, 221, 222, 320, 321, 322, 420, 421, 422, 426, 427, 428, 429, 498: (All Dance Majors are required to demonstrate Level IV proficiency in modern dance and Level II proficiency in ballet and jazz dance.)

Electives (5 credits): DANC 112, 271, 399, 400, 450, THEA 131, 132

Degree Completion in Four Years
Dance (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
DANC 100, 101, 224	6	DANC 200, 199, 216,	
Modern Dance (2)	4	223, 498	10
Ballet (2)	4	Modern Dance (2)	4
Jazz Dance	2	Ballet	2
ENGL 101, 103	6	COMM 200	3
PESM 141	1	Language 101, 102	6
Liberal Studies	9	Liberal Studies	6
Total Hours	*32*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
DANC 300, 318, 324, 326, 419	15	DANC 323, 350, 425	7
Modern Dance (2)	4	Liberal Studies	18
Language 103	3	DANC Elective	1
Liberal Studies	9		
Total Hours	*31*	*Total Hours*	*26*
		Completion Hours	*120*

It is highly recommended that students take as many dance technique classes as possible each semester.

Requirements for the Minor in Dance (24 credits)

Required Courses (24 credits): DANC 100, 101, 105, 200, 220*, 221*, 222*, 223, 224 Improvisation, 323/350 Teaching of Dance/Field Experience, 326 Dance Kinesiology (*All dance minors are required to demonstrate Level II proficiency in Modern Dance, Ballet and Jazz technique). 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.

Electives (recommended coursework to enhance the Dance Minor): DANC 112, 199, 216, 300, 318, 324, 399, 400, THEA 131 and all dance technique courses.

Department of **English**

314 Spotts World Culture Building 724-738-2043

Chair
Cornelius Cosgrove

Assistant Chair
Joseph McCarren

Secretary
Drinda Weber

Faculty
Nancy Barta-Smith, William Boggs, Vernice Cain, Jace Condravy, Cornelius Cosgrove, William Covey, Jr., Robert Crafton, Lisa Craig, Elizabeth Curry, Anne Dayton, Danette DiMarco, Diana Dreyer, Anita Gorman, Cindy LaCom, Jane Lasarenko, Joseph McCarren, Robert McIlvaine, Alison McNeal, Sunita Peacock, Rachela Permenter, Derrick Pitard, Erica Scott, Kathleen Strickland, James Strickland, 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 business writing develop skills useful in law, public relations, government, business, publishing, teaching, and advertising. Students study textual analysis and interpretation, literary theory, ethics, and multicultural literatures.

Requirements for the Bachelor of Arts

Major: English: Literature (39 credits)

Students will study the interactions between cultures and literary texts. Writing, linguistics, and oral interpretation of literature are also required. The writing sequence includes an internship. Students take a minimum of 39 credits in English, exclusive of freshman composition courses.

Required Courses (39 credits)
ENGL 220, 317, 318, 319, 320, 402, 403, 480
Three credits chosen from: ENGL 312, 389
Three credits chosen from: ENGL 331, 332, 333
Three credits chosen from: ENGL 242, 243, 244, 246, 248, 316
Electives (6 credits)
Proficiency of modern languages through the 103 level

Degree Completion in Four Years
English (BA in Literature)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
Language 101, 102	6	Language 103	3
Liberal Studies	18	ENGL 220, 317, 333	9
PESM Activity	1	PESM 141	1
		Liberal Studies	15
Total Hours	*31*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
ENGL 318, 319	6	ENGL 402, 403, 480	9
ENGL 320, 331, 332	9	ENGL 312 or 389	3
ENGL 242, 243, 244, 246,		Liberal Studies	3
248, 316 (choose 1)	3	Electives	15
Liberal Studies	10		
Total Hours	*28*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Bachelor of Science

Major: English: Writing (39 credits minimum)

A minimum of 39 credits is required, exclusive of the freshman composition courses; ENGL 099, 101 and 103. Internships sequence courses outside of the Department of English, as described below, are in addition to the 39 credits in English. College Writing I is a prerequisite for all writing courses.

Professional: (42 credits)
Concentration: (At least 24 credits from the following): 18 credits from: ENGL 204, 205, 306, 409, 450 Internship
3 credits from: ENGL 308 or 309
3 credits from: ENGL 240 or 340
Required Literature Courses:
3 credits: ENGL 403
6 credits from: ENGL 242, 243, 244, 246, 248, 312, 317, 318, 319, 320, 389, 402
Language Requirement (9 credits): ENGL 331, 332, 333
Creative: (39 credits)
Concentration: (At least 21 credits from the following): 9 credits from: 204, 240, 340, 409
3 credits: 205

9 credits from: 307, 310, 450, 491
Required Literature Courses:
3 credits: 403
6 credits from: 242, 243, 244, 246, 248, 312, 317, 318, 319, 320, 389, 402
Language Requirement:
9 credits from: 331, 332, 333
Required Sequence Outside of the Department of English:

Completion of 15 credits or more outside the Department of English in a sequence from one department or of a minor or major in a subject other than English is also required. The selection of courses, minor, or major must be approved by the student's English advisor and by the chairperson of the Department of English.

Degree Completion in Four Years
English: Professional Writing (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	ENGL Lit Elective	3
PESM Activity	1	ENGL 204, 205	6
Liberal Studies	21	ENGL 240 or 340	3
		COMM 200	3
		PESM 141	1
		Liberal Studies	13
		Concentration	1
Total Hours	*28*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
ENGL 306, 331, 333	9	ENGL 332, 403, 409	9
ENGL 308 or 309	3	ENGL 450	6
ENGL Lit Elective	3	Concentration 4 & 5	6
Liberal Studies	3	Electives	9
Concentration 2 & 3	6		
Elective	8		
Total Hours	*32*	*Total Hours*	*30*
		Completion Hours	*120*

Degree Completion in Four Years
English: Creative Writing (BS)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
PESM Activity	1	ENGL 204, 205	6
Concentration Course	3	ENGL Lit Elective	3
Liberal Studies	21	ENGL 240 or 340	3
		Liberal Studies	13
		PESM Activity	1
Total Hours	*31*	*Total Hours*	*29*
Junior Year	*Hours*	*Senior Year*	*Hours*
ENGL 240, 307, 310, 333, 340	15	ENGL 310, 331, 332,	
ENGL Lit Elective	3	403, 409, 450	21
Liberal Studies	6	ENGL Lit Elective	3
Concentration 2, 3	6	Concentration 4, 5	6
Total Hours	*30*	*Total Hours*	*30*
		Completion Hours	*120*

Requirements for the Bachelor of Science in Education

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

Requirements for the Minor in Literature

18 credits are required for a minor in English, with a focus either on literature or on writing.

12 credits from the following required courses: ENGL 312, 317, 319, 403

3 credits of the following required courses: ENGL 242, 243 244, 246, 248, 316, 402

6 credits of English electives, excluding ENGL 099, 101, 103, 210

Requirements for the Minor in Writing

12 hours from the following required courses: ENGL 204, 205, 240, 305, 306, 308, 309, 340, 450

3 credits of the following required courses
ENGL 331, 332, 333

6 credits of English electives, excluding ENGL 009, 101, 103, 210

Requirements for Internships

Internships with local and national organizations and industries enable students to acquire relevant experience in their areas of academic preparation. English majors with a QPA of 2.500 overall and 3.000 in their major courses are eligible.

Department of **History**

212 Spotts World Culture Building 724-738-2053

Chair
John Nichols

Secretary
Donna McKee

Faculty
John Craig, Margaret Denning, David Dixon, Jaclyn Gier, Alan Levy, Michael Matambanadzo, Thomas Pearcy, Larry Rotge, 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.

Requirements for the Bachelor of Arts

Major: History (36 credits)

Required Courses (15 credits)

Two of the following: HIST 151, 152, 153

Two of the following: HIST 201, 202, 203

Historical Method (205) required of students entering the program after July 1992

Distributional Electives: (21 credits)

Nine credits in one area and six in each of two others from the following:

American History: 233, 234, 237, 240, 337, 340, 344, 350, 351, 352, 357, 358, 435, 437, 442, 445, 451, 452, 453, 455

Non-Western History: 286, 362, 363, 370, 371, 380, 381, 382, 386, 462

European History: 240, 305, 306, 319, 320, 322, 331, 332, 422, 424, 426, 427

Degree Completion in Four Years
History (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
THEA 141	3	HIST 152, 203, 205, 286	12
ENGL 101, 103	6	MATH 113	3
HIST 151, 201	6	ENGL 210	3
CHEM 104	3	ART 112	3
G&ES 100, 202	6	COMM 200	3
PESM Activity	1	PHYS 101	3
SPAN 101	3	SPAN 102	3
PSYC 100	3	PESM 141	1
Total Hours	*31*	*Total Hours*	*31*

Junior Year	*Hours*	*Senior Year*	*Hours*
SPAN 103	3	PHIL 323	3
HIST 240, 306, 352, 370	12	HIST 340, 437	6
BIOL 101	3	Internship	6
G&ES 135	3	Electives	13
SASW 105, 106	6		
PHIL 221	3		
Total Hours	*30*	*Total Hours*	*28*
		Completion Hours	*120*

Requirements for the Bachelor of Science in Education

The specific course of study and the requirements leading to teaching certification in social studies with an emphasis in history are available in the Department of History or from the student's advisor. See also Teacher Education Policy Manual, available in 105 McKay Education Building. Pending legislation and university programmatic changes now being considered may substantially change the social studies certification requirements. Up-to-date information can be obtained in McKay Education Building Room 105.

Requirements for the Minor in History

Students must successfully complete 18 credits in one of the following minors:

American History:

6 credits from 201, 202, 203

9 credits from 233 or 234, 237, 240, 337, 340, 344, 350, 351 or 352, 435, 437, 442, 445, 451 or 452, 453, 455 (6 credits must be 300 level or above); a 3 credit free elective in history.

European History:

6 credits from 151, 152, 153

9 credits from 240, 305, 306, 319, 320, 322, 331, 332, 422, 424, 426, 427; a 3 credit free elective in history.

General History:

9 credits from 100 and 200 level history courses; 9 credits of electives in history at the 300 level or above.

Military History:

6 credits from 151, 153; 12 credits from 240, 340, 350, 381, 426

Non-Western History:

6 credits from 151, 153; 9 credits from 286, 362 or 363, 370, 371, 380, 382, 386, 462; a 3 credit free elective in history.

Department of **Modern Languages and Cultures**

Carruth-Rizza Hall 724-738-2062

Chair

Melinda Ristvey

Secretary

Karen Hogg

Faculty

Ana Caula, Deborah Cohen, Thomas Daddesio, Augustin Martinez-Samos, Charles Tichy, Melinda Ristvey, Eva Tsuquiashi-Daddesio, Hannah Zinni

Courses in modern languages not only develop linguistic skills but also help students understand the culture of the country whose language they are studying. Knowledge of the world language helps persons to broaden their horizons. It develops intellectual curiosity, world knowledge, the ability to express oneself, and the capacity to enrich one's enjoyment of the many aspects of world cultures.

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 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 and for freshmen within the first few weeks of the semester.

Chinese

Chinese 101, 102 and 103 satisfy the liberal arts language requirement for the bachelor of arts degree in any discipline

German

German 101, 102 and 103 satisfy the liberal arts language requirement for the bachelor of arts degree in any discipline.

Requirements for the Minor in German (18 credits)

GERM 102, 103, 201, 220, plus two courses at the 300 level

Italian

Italian 101, 102 and 103 satisfy the liberal arts language requirements for the bachelor of arts degree in any discipline.

Japanese

Japanese 101, 102 and 103 satisfy the liberal arts language requirements for the bachelor of arts degree in any discipline.

Korean

Korean 101, 102 and 103 satisfy the liberal arts language requirements for the bachelor of arts degree in any discipline.

Russian

Requirements for the Minor in Russian:

RUSS 101, 102, 103, 202, 305, 306

Russian 101, 102 and 103 satisfy the liberal arts requirement for the bachelor of arts degree in any discipline.

Program in East Asian Studies

Coordinator

George Brown

Faculty

Nora Ambrosio, George Brown, Margaret Denning, Theodore Kneupper, Alison McNeal, J. Sunita Peacock, Rachela Permenter, Carolyn Prorok, David Skeele

The interdisciplinary East Asian Studies minor offers students the opportunity to gain a working knowledge of the countries that share the Pacific Ocean with the United States. East Asian countries are those modern cultures which draw their most prominent characteristics from ancient China, which has the oldest surviving civilization in the world. Japan, the Koreas, Vietnam, and China are the major "East Asian" nations today, but there are significant populations in other parts of the world of people whose traditions are East Asian (Indonesia and Malaysia being important examples). Over one quarter of the people residing on the globe live in the area called East Asia, which contains the most rapidly industrializing and fastest growing economies in the world.

The East 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.

Students may chose between two tracks in the minor. One track requires no competency in an East Asian language and the other track is for those who want to demonstrate proficiency in either Chinese, Japanese, or Korean.

Requirements for the Minor in East Asian Studies

Without a language requirement (18 credits)

No more than three credits may be in languages and at least two courses must be at or above the 300 level.

ENGL 248, 316, HIST 286, 381, 382, 386, POLS 331, 366, 371, G&ES 303, PHIL 343, THEA 249, CHIN 101, 102, 103, 202, or KOR 101, 102, 103, 202, or JAPN 101, 102, 103, 202

With a language requirement (21 credits)

Students must attain at least third semester proficiency in either Chinese, Japanese, or Korean. At least three courses must be non-language courses. At least two of these courses must be at or above the 300 level.

ENGL 248, 316, HIST 286, 381, 382, 386, POLS 331, 366, 371, G&ES 303, PHIL 343, THEA 249, CHIN 101, 102, 103, 202, or KOR 101, 102, 103, 202, or JAPN 101, 102, 103, 202

Program in French

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, and the developments which followed them, bringing the modern world into being. The passport of French studies will also serve to open doors for the student in today's world where French is a principal language in 43 countries and where knowledge of French is constantly needed in critical diplomatic situations. France will most surely maintain its political and commercial leadership in the world as it enters the 21st century.

Students have the opportunity to participate in the French Club and Pi Delta Phi, the French honorary society. 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.

Requirements for the Bachelor of Arts
Major: French (24-39 credits)

Required Courses: French 101, 102, 103, 201, 220 *, French 300, 301 or 401, 305 or 306, 320, 350, 400

6 credits of any 300- or 400-level French course may be chosen as an elective.

*These credits may be exempted through a department placement exam, AP credits or CLEP credits. Native speakers should consult the Department of Modern Languages and Cultures.

Degree Completion in Four Years
French (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
FREN *102, 103	6	FREN 201, 220	6
PESM 141	1	ENGL 210	3
PESM Activity	1	CEDP 248	3
Liberal Studies	12	Liberal Studies	6
Electives **	6	Electives	9
Total Hours	*32*	*Total Hours*	*30*

Junior Year	*Hours*	*Senior Year*	*Hours*
FREN 300, 305, 350, 301/401	12	FREN 400	3
Liberal Studies	9	FREN Literature (2)	6
Electives	12	FREN Electives	6
		Liberal Studies	3
		Electives	7
Total Hours	*33*	*Total Hours*	*25*
		Completion Hours	*120*

*Most students enter the major with at least three years of high school French and are able to exempt the 101 level. Some students are able to place higher which will allow them ample time to complete a second major or minor within a four-year sequence.

**Most of our BA candidates combine French with a second major or minor. Depending on what second major may be chosen, several of the courses from the second major may be counted in the liberal studies program as well.

***A semester study abroad experience is highly recommended.

Specialization: International Business

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 the specialization in international business are available from the Department of Modern Languages and Cultures.

Requirements for the Bachelor of Science in Education

The specific course of study and the requirements leading to teacher certification in French are available from the Department of Modern Languages and Cultures or from the student's advisor. See also Teacher Education Policy Manual, available in 105 McKay Education Building.

Requirements for the Minor in French

Eighteen credits of French courses above the 101 level, including a minimum of two 300-level courses.

Program in Spanish

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 of Bachelor of Arts

Major: Spanish (27-45)

Required Courses: Spanish 101, 102, 103, 200, 201, 220 * , Spanish 300, 301, 401

One of following civilization courses: Spanish 305, 306, 307, 308

One of the following literature survey courses: Spanish 330, 332

One of the following literature courses: Spanish 431, 432

6 credits of Spanish electives at 300- or 400-level (except Spanish 302 and 309)

*Some or all of these credits may be exempted through a department placement exam, AP credits or CLEP credits. Heritage speakers are exempt from certain courses and should consult the Department of Modern Languages and Cultures for specific requirements.

Degree Completion in Four Years
Spanish (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
ENGL 101, 103	6	COMM 200	3
SPAN *102, 103	6	SPAN 201, 220, 300	9
PESM 141	1	ENGL 210	3
PESM Activity	1	CEDP 248	3
Liberal Studies	12	Liberal Studies	6
Electives **	6	Electives	9
Total Hours	*32*	*Total Hours*	*33*

Junior Year	*Hours*	*Senior Year*	*Hours*
SPAN 300, 305, 301/401	9	SPAN 400	3
Liberal Studies	9	SPAN Literature (2)	6
Electives	12	SPAN Electives	6
		Liberal Studies	3
		Electives	7
Total Hours	*30*	*Total Hours*	*25*
		Completion Hours	*120*

*Most students enter the major with at least three years of high school Spanish and are able to exempt the 101 level. Some students are able to place higher, which allows ample time to complete a second major or minor within a four-year sequence.

**Most of our BA candidates combine Spanish with a second major or minor.

Depending on what second major may be chosen, several of the courses from the second major may be counted in the liberal studies program as well.

***A semester study abroad experience is highly recommended.

Specialization: International Business

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 the specialization in international business are available from the Department of Modern Languages and Cultures.

Requirements for the Bachelor of Science in Education

The specific course of study and the requirements leading to teacher certification in Spanish are available in the Department of Modern Languages and Cultures or from the student's advisor. See also Teacher Education Policy Manual, available in 105 McKay Education Building.

Requirements for the General Minor in Spanish

18-21 credits of Spanish classes including 6 credits from the 300 level

Requirements for the Spanish minor for Elementary Education:

SPAN 101, 102, 103, 200, 201, 302, 309, 318, and any additional credits necessary to reach 18 hours if beginning courses were exempt.

Department of **Music**

225 Swope Music Hall 724-738-2063

Chair
Maribeth Knaub

Secretary
Barbara Frankenburg

Faculty
James Berry, Warren Davidson, David Glover, Susan Hadley, Mechelle Hawk, Stephen Hawk, Maribeth Knaub, Matthew Litterini, Jeff Mangone, Patrick Myers, Colleen Neubert, Gary Purifoy, Sue Shuttleworth, Nanette Solomon, Stacey Steele, Terry Steele, Paula Tuttle, 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.

Requirements for the Bachelor of Arts
Major: Music (40 credits)

All prospective music majors must audition with a faculty committee from the Department of Music.

Required Music Courses (40 credits)
MUSI 151, 154, 253, 254, 255, 256, 257, 258, 273, 332 or 333, 350, 351, 373, 473 (26 credits)
*Applied Major (7 semesters)
*Ensemble (7 semesters)
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.
Total Degree Credits: 120
*See chairperson of Department of Music for an explanation of this requirement.

Requirement for the Bachelor of Music
Major: Music (78 credits)

All prospective music majors must audition with a faculty committee from the Department of Music.
Specialization: Performance
Required Courses (30 credits): MUSI 151, 154, 253, 254, 255, 256, 257, 258, 273, 299 (voice majors only), 332, 333, 350, 351, 360 or 361, 373, 431, 473
*Applied Major (24 credits)
*Applied Minor (4 credits)
*Applied Recital (1 credit)
Electives (13 credits) selected from the following: MUSI 128, 134, 135, 137, 138, 233, 245, 246, 247, 360 or 361, 389, 499
*Ensemble (8 semesters)
Total Degree Credits: 120
*See chairperson of Department of Music for an explanation of these requirements.

The double majors, BM in Performance/BS in Music Education, the BM in Performance/BS in Music Therapy, the BS in Music Education/BS 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 Bachelor of Science

Major: Music Education

See the Music Education section.

Major: Music Therapy

See the Music Therapy section.

Requirements for the Minor in Music

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.

Program in Music Education

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 QPA requirements for Basic Competency courses, music education program, and cumulative QPA; 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.

Requirements for the Bachelor of Science

Major: Music Education (61 credits)

All prospective music education majors must audition with a faculty committee of the Department of Music.

Required Music Courses: MUSI 133 (instrumental majors only), 134, 135, 137, 151, 154, 245, 246, 247, 253, 254, 255, 256, 257, 258, 273, 299 (voice majors only), 300, 332, 333, 334, 335, 336, 337, 350, 351, 360 or 361, 373, 374

*Applied Major (7 credits)

*Applied Minor (4 credits)

*Ensemble (7 credits)

Other courses required: SEFE 200, CEDP 248, and MUSI 455, SEFE 380 or CEDP 342

Total Degree Credits: 120

*See chairperson of Department of Music for an explanation of this requirement.

The double majors, BM in Performance/BS in Music Education, the BM in Performance/BS in Music Therapy, the BS in Music Education/BS in Music Therapy are available for students who wish to pursue combined degrees. Please see Chairperson for the semester by semester schedule.

Degree Completion in Four Years
Music Education (BS MusEd)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
MUSI 131, 132, 133, 134, 137, 151, 154, 253, 256	11	MUSI 234, 235, 245, 247, 254 255, 257, 258, 273, 332	14
MUSI 179, 181, 182, 183, 184 or 185	2	MUSI 279, 281, 282, 283, 284 or 285	2
MUSI 115, 118, 119 or 121	2	MUSI 115, 118 119 or 121	2
ENGL 101, 103	6	ENGL 210	3
MATH 113 or higher	6	COMM 200	3
Liberal Studies	3	SEFE 200, CEDP 248	6
Total Hours	*30*	*Total Hours*	*30*

Junior Year	*Hours*
MUSI 135, 246, 300, 333, 334, 335, 336, 350, 351, 373, 473	20
MUSI 360 OR 361	1
MUSI 379, 381, 382, 383, 384, or 385	2
MUSI 115, 118, 119 OR 121	2
PESM	2
Liberal Studies	3
Total Hours	*30*

Senior Year	*Hours*
MUSI 337	1
MSUI 479, 481, 482, 483, 484 or 485	1
MUSI 115, 118, 119 or 121	1
MUSI 455 (student teaching)	12
CEDP 342 or SEFE 380	3
Liberal Studies	12
Total Hours	*30*
Completion Hours	*120*

Program in Music Therapy

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.

Requirements for the Bachelor of Science

Major: Music Therapy (73 credits)

All prospective music therapy majors must audition with a faculty committee of the Department of Music.

Required Music Courses (52 credits): Music 137, 138, 151, 154, 247, 253, 254, 255, 256, 257, 258, 273, 332, 333, 350, 351, 360, 361, 373, 473 (32 credits)

*Applied Major (7 credits)

*Applied Minor (6 credits)

*Ensemble (7 credits)

Required Music Therapy Courses (21 credits): MUSI 127, 199, 228, 236, 312, 327, 428, 433 (six semesters of clinical experience are required), 440, 450

Other Courses Required by the American Music Therapy Association

BIOL 216 or 217, SPED 100, 3 credits from SASW, PSYC 100 or 105, 376, and 3 additional credits of psychology.

Total Degree Credits: 120

*See chairperson of Department of Music for an explanation of this requirement.

The double majors, BM in Performance/BS in Music Education, the BM in Performance/BS in Music Therapy, the BS in Music Education/BS in Music Therapy are available for students who wish to pursue combined degrees. Please see Chairperson for the semester by semester schedule.

Degree Completion in Four Years
Music Therapy (BS)

Freshman Year	*Hours*
MUSI 127, 131, 132, 133, 137, 138, 151, 154, 199, 253, 256	12
MUSI 179, 181, 182, 183, 184 or 185	2
MUSI 115, 118, 119 or 121	2
ENGL 101, 103	6
PESM 141 & PESM & Dance Activity	2
PSYC 100 or 105	3
SASW	3
Liberal Studies	3
Total Hours	*33*

Sophomore Year	*Hours*
MUSI 228, 234, 235, 236, 247, 254, 255, 257, 258, 273	15
MUSI 279, 281, 282, 283, 284 or 285	2
MUSI 115, 118, 119 or 121	2
COMM 200	3
SPED 100	3
Liberal Studies	6
Total Hours	*31*

Summer I	
Liberal Studies - Anatomy	6

Junior Year	*Hours*
MUSI 312, 327, 332, 333, 350, 351, 360, 361, 373, 473	20
MUSI 379, 381, 382, 383, 384 or 385	2
MUSI 115, 118, 119 or 121	2
Applied Voice (minor applied lesson)	2
Liberal Studies (Psych)	6
Total Hours	*32*

Senior Year	*Hours*
MUSI 428, 433, 440	7
MUSI 450 (6 month internship)	3
MUSI 479, 481, 482, 483, 484 or 485	1
MUSI 115, 118, 119 or 121	1
PSYC 276	3
Liberal Studies	3
Total Hours	*18*
Completion Hours	*120*

Department of **Philosophy**

003 Spotts World Culture Building 724-738-2071

Chair
Richard Findler

Secretary
Carol Dickey

Faculty
Richard Findler, Bernard Freydberg, William Oman, Bradley Wilson

"Much of the success I've had as a first-year 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

"I wanted more than just a degree and a job; I wanted to understand the world and my place in it in a more meaningful way. Members of the department have continued to advise me and be gracious to me and my family over the years."

Dr. James Highland
Class of '92
Philosophy Professor
University of Hartford

"A great place to study philosophy. Every SRU instructor was committed to student goals, including putting in overtime…" "numerous examples of kindness and generosity on a daily basis."

Diane Bowser '95
Philosophy Instructor
Clarion University (Venango Campus), PA

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 academic pursuits and intelligent living.

- 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 alternative ideas and voluminous information in both the theoretical and applied spheres.

Philosophy prepares students for advanced studies in its own and in related fields and for many careers which require a high level of logical and linguistic refinement, ethical awareness and the capacity to form interpretive judgments within complex and dynamic social and intellectual environments on a global scale. Because of the strong emphasis on logical reasoning, philosophy majors are coping particularly well with rapid technological change. New roles have opened in health care, government, education, business, environmental fields, technology and scientific research for those with professional training in ethics. Traditionally, philosophical education has been valuable for further study in:

- the humanities, especially in fields which involve language, literature and the arts;
- the sciences, especially in relation to their theoretical foundations and their social impact;
- comparative cultures;
- law and policy studies; and
- 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.

Requirements for the Bachelor of Arts

Major: Philosophy (24-39 credits)

To meet differing needs of students, there are three tracks which students may pursue toward a degree in philosophy.

Degree Completion in Four Years
Philosophy (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
PHIL 101, 113, 123	9	PHIL 163, 171, 301, 335	12
ENGL 101, 103	6	MATH 113	3
BIOL 101 & Lab	4	COMM 200	3
PESM 141	1	ENGL 210	3
G&ES 100	3	ART 225	3
HIST 151	3	German 102, 103	6
GERM	3		
Total Hours	*29*	*Total Hours*	*30*
Junior Year	*Hours*	*Senior Year*	*Hours*
PHIL 140, 170, 353	9	PHIL 371, 372, 490	9
PHYS 101	3	SASW 201, 202	6
HIST 201	3	ENGL 312	3
WMST 415	3	G&ES 242	3
MATH 225	4	BIOL 300	3
POLS 349 3		CPSC 300	3
SASW 201	3	MUSI 105	3
PSYC 338 3			
Total Hours	*31*	*Total Hours*	*30*
		Completion Hours	*120*

There are many possibilities for degree completion in four years. This is just one sample. Students should consult with advisors.

Specialization: Professional Major

A 39-credit major offers an intensive concentration in philosophy. Primarily for students seeking a career in philosophy with the intention of continuing their studies in graduate school.

Required courses: PHIL 113, 123, 313, either 331 or 335, 351, 371, 372, 490 Independent Study, plus 3 courses which are 300 level or above (exclusive of required courses). (PHIL 101 may be counted only if taken as one of the first three courses in philosophy.)

Specialization: Liberal Arts Major

A 30-credit major which encourages students to focus on philosophy tailored to another academic interest in 1) humanities and fine arts 2) social and behavioral sciences 3) natural sciences and mathematics.

Required Courses: PHIL 113 or 313, 371, 372. Also, required are PHIL 123 for HFA-track, PHIL 123, 324, 325, or 326 for SBS and NSM tracks. A minimum of 3 courses must be taken in each track. (PHIL 101 may be counted only if taken as a first course in philosophy.)

Specialization: Career-Related Major

A 24-credit major which allows students to design a program of philosophy courses to complement the student's preparations for a specific career. This is a second major.

Required courses: 113 or 313, 123. Each career track has two further required courses.

The choice of tracks and courses within them should be done in consultation with a member of the philosophy department.

Requirements for the Minor in Philosophy

This program requires fifteen credits in philosophy with at least nine credits at the 300 level. Courses should be chosen in consultation with a member of the Department of Philosophy.

Requirements for the Certificate of Academic Achievement in Religious Studies

A minimum of 18 credits, equally divided among courses in humanities and fine arts and in social and behavioral sciences, must be selected from the following:

PSYC 338, ENGL 248, G&ES 242, HIST 370, PHIL 140, 171, 341, 343, 353, 375, SASW 430

Note: For students who are interested in pre-law advisement please refer to the *Program in Pre-law* section.

Department of **Theatre**

300-C Miller Auditorium 724-738-2090

Chair
Gordon Phetteplace

Secretary
Lisa Smith

Technical Director
John Pivetz

Faculty
Rebecca Morrice, Gordon Phetteplace, David Skeele

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 Marisol, Jesus Christ Super Star, Othello, Dancing at Lughnasa, Hair, A Midsummer Night's Dream, Poster of the Cosmos, Beirut, and Oedipus Rex.

Requirements for the Bachelor of Arts
Major: Theatre (40 credits)

Required Core Courses for all Specializations (19 credits): THEA 131, 132, 281, 337, 425, four credits of 151

Specialization: Acting (21 credits)

Required Courses (18 credits): THEA 222, 322, 325, 328, 330, 394

Electives (3 credits): THEA 141, 215, 235, 329, 332, 333, 334, 335, 345, 355, 393, 450, 490, 498.

Degree Completion in Four Years
Theatre (BA)

Freshman Year	*Hours*	*Sophomore Year*	*Hours*
MUSI 101	3	THEA 151, 281, 337,	
ENGL 101, 103	6	215 or 222	10
THEA 131, 132, 151	7	PHYS 101	3
G&ES 100, 202	6	MATH 113	3
PESM Activity	1	ENGL 210	3
SPAN 101	3	ART 112	3
PSYC 100	3	COMM 200	3
		SPAN 102	3
		PESM 141	1
		CHEM 104	3
Total Hours	*29*	*Total Hours*	*32*

Junior Year	*Hours*	*Senior Year*	*Hours*
SPAN 103	3	PHIL 323	3
THEA 151, 330, 332, 325, 328		THEA 151, 425, 393 or 394	7
or 151, 235, 333, 334 or 335	13	Internship	6
BIOL 101	3	Electives	12
G&ES 135	3		
SASW 105, 106	6		
PHIL 221	3		
Total Hours	*31*	*Total Hours*	*28*
		Completion Hours	*120*

Specialization: Design/Technology (27 credits)

Required Courses (15 credits): THEA 215, 235, 333, 393, 3 credits from 334 or 335

Electives (6 credits; 5 of the 6 must be 300 level or above): THEA 141, 222, 269, 322, 328, 329, 330, 332, 334*, 335*, 345, 355, 394, 450, 490, 498.

Requirements for a Minor in Theatre:

Required Courses (11 credits): THEA 131, 132, 2 credits of 151, 3 credits from 281 or 393 or 394.

Electives Courses: THEA 141, 215, 222, 230, 235, 269, 322, 325, 328, 329, 330, 332, 333, 334, 335, 345, 355, 393, 394, 450, 490, 498.

*Courses may not be used to fulfill more than one requirement.

Program in **Women's Studies**

007E Strain Behavioral Science Building 724-738-2992

Director
Joan Condravy

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 sex roles.

Requirements for the Minor in Women's Studies

Currently students 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, and achieving a QPA of 2.000 or better: WMST 115, 415, 450, NURS 312, AHEA 211, ENGL 210 (designated sections), 243, PSYC 300, HIST 319, 320, 442, MUSI 297, FREN 335, POLS 349, 375, SPAN 335, SASW 339, HONR 386, 387, GERO 435, any dept. 450 Internship, any department 490

In addition, students may earn a Document of Academic Achievement in Women's Studies by earning twelve credits selected from the list above with a minimum QPA of 2.000

Program in **Pre-engineering**

327 Vincent Science Hall 724-738-2074

In a cooperative program with the Pennsylvania State University (PSU), 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. A student recommended for transfer by SRU's Department of Physics will be able to enter any one of the following areas of study:

Aerospace Engineering
Agricultural and Biological Engineering
Chemical Engineering
Civil Engineering
Computer Engineering
Electrical 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 Bachelor of Arts
Major: Physics (61 credits)
Specialization: Pre-engineering

Required Courses:

(a) PHYS 140, 141, 211, 212, 213, 314, 315, 331, (PHYS 315 is not required of chemical engineering, electrical engineering, material science and engineering, nuclear engineering, and petroleum and natural gas engineering students. All other students must choose an alternative course from the list of pre-engineering electives if PHYS 315 is not taken. Physics 411 is only required of students intending to enroll in aerospace, computer, electrical, or nuclear engineering. All other students must choose an alternate course from the list of pre-engineering electives if PHYS 411 is not taken.)

(b) *Related Field Work*
CHEM 107, 108, 111, 112
CHEM 201, 202 (Chemical Engineers Only)
CPSC 140
MATH 225, 230, 231, 240, 301

(c) *Engineering Electives* (3 credit hours absolute minimum. Two additional courses must be taken if PHYS 315 and PHYS 411 are not taken.)
Language Courses 101 and/or 102 (Language courses are optional, but may be taken in lieu of other engineering elective courses)
ENGL 205 (Prerequisite: English 103)
CPSC (additional course)
MATH 307, 315
Phys/CHEM 301
PHYS 325, 371, 381, 410, 480
Independent Study (Restricted to topics in physics and computer science)
EGEO 101, 102, 111, 112, 201, 327, 360 (Recommended for civil, mining, or petroleum engineers.)

(d) *Liberal Studies Requirements* (38 credits)
Basic Competencies
The Arts
Cultural Diversity/Global Perspective
Human Institutions and Interpersonal Relations
Our National Experience (An economics course is required at PSU and may be taken at SRU.)
Challenges of the Modern Age (the requirements in this block were waived by the University Curriculum Committee.)

(e) *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
(SRU Portion of 3+2 Program)
Physics (BA)

Freshman Year	*Hours*
ENGL 101, 103	6
PESM 141	1
MATH 225, 230	8
PHYS 140, 141, 211, 213	10
Liberal Studies	9
Total Hours	*34*

Sophomore Year	*Hours*
COMM 200	3
PESM Activity	1
MATH 231, 240	7
CHEM 107, 108, 111, 112	8
PHYS 212	4
PHYS Elective	3
Liberal Studies	6
Total Hours	*32*

Junior Year	*Hours*
CPSC 140	3
PHYS 331, 381, 411, 314, 371	15
Liberal Studies	9
Elective	3
Total Hours	*30*

Senior Year	*Hours*
Senior Year Credits from Penn State	

Program in **Pre-law**

209 Spotts World Culture Building 724-738-2075

For the past two decades faculty members in political science and philosophy have taken the lead in advising the majority of SRU's future attorneys. While law schools have advised faculty that students may prepare for the study of law through a variety of academic majors or programs, students interested in legal education will benefit from seeking the advice of faculty with experience in counseling the many students who have successfully gone on to law school and the practice of law from Slippery Rock University. SRU students have succeeded at law schools across the country, including Fordham, Georgetown, Emory, Maryland, American, Florida, Temple and Syracuse — as well as Harvard and Yale. In almost any given year, Slippery Rock University students who have worked with our program advisors will also be attending regional programs at Pittsburgh, Duquesne, Widener, Pennsylvania State, and Dickenson Universities.

Students who are interested in preparing for a legal education and pursuing a career in law are strongly encouraged to make appointments and speak with Dr. Richard Martin 724-738-2434 or Dr. Walter Powell 724-738-2432 in the Department of Government and Public Affairs or Dr. William Oman 724-738-2380 in the Department of Philosophy. These faculty members work with students to design a course of studies suited to individual interests and needs. This service is extended to all students regardless of their major. The faculty members are available to help students prepare for an exciting career in the law.

Programs in **Pre-medical, Pre-dental, Pre-veterinary, Pre-optometry, and Pre-podiatry**

123 Vincent Science Hall 724-738-2023

Students interested in these pre-professional programs are requested to contact the chairperson of the Department of Biology for referral to the chairperson of the pre-professional advisory committee. This committee is responsible for assisting students in the proper selection of undergraduate courses, making application for appropriate aptitude tests, and applying to professional schools. 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, and mathematics through calculus.

Program in **Pre-metrology**

327 Vincent Science Hall 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.



Special **Programs**

HONORS

128 Founders Hall 724-738-3722

Director

Cindy LaCom

Secretary

Julie Graham

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 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 QPA of 3.25 or higher. Students may select from a variety of specially-designed courses in the following departments: communication, computer science, English, government and public affairs, history, mathematics, music, philosophy, biology, chemistry, geography, allied health, and environmental science.

Students also have the opportunity to take Great Books courses, which are geared toward extensive reading in a specialized area. Content of these seminars varies from semester to semester and have included, The Holocaust (Germany), Latin American History (Panama), Galileo (Florence), and Irish Playwrites (Ireland). Because a research component is required, this course can be especially valuable for students contemplating graduate education. In addition, the program has an honors thesis option, which would count as a 3-credit 300-level course.

Honors students enjoy a number of benefits, both in and out of the classroom, including seminar-style classrooms where enrollment is typically capped at 20 or 25 students per class; early registration privileges; and learning experiences through national and international travel opportunities. In recent years, students have presented at national honors conferences in Chicago, Los Angeles, Brooklyn and at regional conferences in Puerto Rico, Gettysburg, and the Adirondacks. In addition, courses are offered every spring and summer, which include travel abroad; in the past, students have traveled to Turkey, South Africa, 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 one-page typed essay in which they discuss what they hope to gain from their university experience. If you are interested in participating, please contact Dr. Cindy Lacom at 724-738-3722 or by e-mail **honorsprogram@sru.edu**

Institute for Community, Service-Learning, and Nonprofit Leadership

Lowry Center 724-738-2414

Director
Alice Kaiser-Drobney

Director for Non-Credit Programs
Laurel Dagnon

Secretary
Becky Cress

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Slippery Rock University students, joined by faculty, staff and others lead the way to make a difference. SRU's nationally recognized Institute for Community, Service-Learning, and Nonprofit Leadership operates a system for leveraging knowledge to develop socially responsible, civic-minded youth. The Institute prepares young people, in partnership with their communities, to use personal strengths, academic preparation, and community resources to address pressing social needs. As a result of their interaction with the Institute's Care Break Program, which offers a series of community service projects in cities across the United States, students connect intellect, class room experiences, as well as interpersonal and personal passion to purposeful action that adds value to their lives.

Community service, volunteerism, and service-learning are significant elements in the curricular and co-curricular experiences of Slippery Rock University students. The climate for service at Slippery Rock University is dramatic:

- The new I-Care House, located in New Castle, PA, connects campus outreach into a local community.

- The university supports the AmeriCorps program where thirty-five students earn up to $1800 toward payment of their tuition.
- All elementary and special education majors participate in a service-learning workshop and complete a minimum of two service-learning components in their coursework.
- Environmental studies majors complete 100 hours of service for graduation.
- Sport management majors provide 200 hours of service prior to graduation.
- More than eighty faculty include service-learning or volunteer projects as part of their course requirements.
- More than 140 classes with service-learning components are offered across all academic colleges each semester.
- International experiences are beginning to include service-learning opportunities.
- Service learning is one of the three required components in the Honors Program.
- Faculty plan Care Breaks as part of their academic spring semester courses.
- Many new academic departments, each year, produce new service-learning ideas as they explore how service-learning fits into their academic disciplines.

Through the Institute and the Department of Government and Public Affairs, students can earn a national certificate from American Humanics, the nation's only certifying body for entry-level human services and nonprofit professionals. The certificate is offered at fewer than 100 colleges and universities across the United States and is linked to eighteen major nonprofit organizations such as Big Brothers, Big Sisters, American Red Cross, YMCA, and YWCA. This program and the AmeriCorps program provide students with the skills necessary for a career path or a personal goal of working in a non-profit, non-governmental organization. The courses in the Humanics Certificate are intended to meet and enhance the three criteria for service-learning experiences: training for, participation in, and evaluation of meaningful public service opportunities. All students are invited to visit the Institute for Community, Service-Learning, and Nonprofit Leadership that is located in Lowry Center and are encouraged to become involved.

INTERNATIONAL INITIATIVES

114 Carruth Rizza Hall 724-738-2057

Director

Donald E. Kerchis

International Student Advisor

Pamela Frigot

International Student Admissions

Kelly Slogar

Secretaries

Denise Barger, Brenda McKissick

International Student Services

To promote multi-cultural awareness, the university actively seeks international students. In recognition of their unique needs, the Office of International Initiatives admits international students, providing support services, such as orientation to the United States and Slippery Rock University; immigration information and assistance (processing work for visa and passport renewal, extensions of stay, work permits, etc.); support for the Internations Club; registration; counseling and personal adjustment problems; and community liaison services.

Study Abroad Opportunities

Slippery Rock University provides students with a global understanding of the world so that they may gain the international understanding necessary to be informed citizens. The university encourages its students to explore the appropriateness of studying abroad. This can be an integral part of the students' university experience, providing personal growth, cultural understanding and job opportunities.

Study abroad programs are conducted during the academic year, summer, and during winter vacation. Over 250 students annually study overseas. The following represents the current study abroad opportunities with which Slippery Rock University is formally associated.

Australia (Melbourne) – Established in 2001, students can earn 12-15 credits studying at Victoria University.

Austria (Vienna) – This popular overseas program is located in beautiful Vienna, Austria, where students can earn 12-15 credits each semester. Emphasis is on German language, and culture, and music.

Bulgaria (Blagoevrad) – Established in 1992 with the American University in Bulgaria. Students may earn 12-15 credits per semester.

China (Nanjing) – Established in 2001 with Nanjing University. Students can earn 12-15 credits per semester in Chinese language, history, and culture. (A minimum of one semester of Chinese is required.)

Costa Rica (San Jose) – Students can earn 12-15 credits per semester studying at the University of Costa Rica.

England (Middlesburgh) – Established in 1991 with Teesside University. Students majoring in business and liberal arts may earn 12-15 credits per semester.

France (Cannes) – Students can earn 12-15 credits per semester studying at The College Internationale de Cannes. Emphasis is on French language, culture, history and business.

Germany – Since 1982 students fluent in German may study at 1 of 12 German universities earning 12-15 credits per semester in their major and German.

Hungary (Budapest) – Established in 1989 with the Semmelweiss University, physical education students can earn 12-15 credits during the spring semester.

Ireland (Dublin) – Education majors student teaching in the fall semester can teach in selected Irish public schools and live with Irish host families.

Ireland (Limerick) – Students can spend the fall semester at the University of Limerick where they can earn 12-15 credits in liberal arts, physical education, and business.

Japan (Osaka) – Kansai Gaidai University and Slippery Rock University have exchanged students since 1979. Students can earn 12-15 credits per semester in Japanese language, business, social sciences, and humanities (a minimum of one semester of Japanese is required).

Korea (Chuncheon) – Established in 1988 with Kangwon National University, students can earn 12-15 credits per semester emphasis is on Korean language and culture. (A minimum of one semester of Korean language is required.)

Mexico (Mexico City) – Established in 1996 with Iberoamericana University in Mexico students may earn 12-15 credits per semester.

Poland (Poznan) – Established in 1994 with the Academy of Fine Arts in Poznan. Students can earn 12-15 credits per semester in art.

Russia (Moscow) – Established in 1993 with the Pushkin Institute where students can earn 12-15 credits per semester. (A minimum of 1 semester of Russian is required; summer intensive Russian language classes are available).

Scotland (Edinburgh) – Established in 1991 with Queen Margaret College. Students majoring in communications may earn 12-15 credits per semester.

Slovakia (Bratislava) – Established in 1991 with Comenius University and the Academy of Fine Arts. Students majoring in liberal arts and art may earn 12-15 credits per semester.

Spain (Madrid) – Every semester students can study just outside Madrid at the Universidad de Alcala de Henares, where they can earn 12-15 credits. Emphasis on Spanish language, culture and history.

Spain (Seville) – Every semester students can study in Seville at the Institute of International Studies, associated with the University of Seville, where they can earn 12-15 credits. Emphasis on Spanish language, culture, history and business.

Wales (Aberystwyth) – Established in 1997 with Aberystwyth University. Students can earn 12-15 credits per semester in all majors.

International Business Internships

Every summer students may secure internship positions in England and Scotland for 10 weeks, earning up to 12 credits working for British companies, organizations or multinational corporations.

Summer Programs

Summer courses are offered by Slippery Rock University professors at eight overseas centers. The programs vary from three to four weeks, and three-to-nine credit hours may be earned. Current summer programs are conducted in:

- Canada (Stratford, Ontario)
- Costa Rica (San Jose)
- France (Cannes)
- England (London)
- Ireland (Dublin)
- Russia
- Spain
- Germany (Calw)

January/March Seminars

Selected courses will have an overseas component during January or March.

Honors Cultural Seminar

During spring vacation selected honors students will be provided a cultural experience in an international setting.

Financial aid received by students may be applied to SRU sponsored programs. Special travel stipends are available to SRU students. The Office of International Initiatives also provides students with assistance in making travel arrangements, passport application, international student I.D., and international youth hostels.

Admission of International Students

See section titled *Admission to the University.*

LIFELONG LEARNING

124 North Hall 724-738-4480

Dean

James Kushner

Administrative Assistant

Tawnya Curatola

Departments

Alumni Relations
Career Services
Center for Lifelong & Community Learning
Continuing Education
McKeever Environmental Learning Center
North Hills Center

Programs

Institute for Learning in Retirement
Pittsburgh Disabilities Employment Project for Freedom
Regional Learning Alliance

In keeping with its commitment to public education, SRU provides high quality programming in continuing education, off-campus programs, and distance learning options. Credit courses, non-credit courses, workshops, seminars, and web-based courses are scheduled at times and in locations that are particularly convenient for the part-time, non-traditional student. This permits the student to complete most of the required coursework in a variety of degrees and professional certificates while holding a full-time job. Classes are regularly scheduled at the Slippery Rock University North Hills site and at other sites in western Pennsylvania. Web based courses can be started at anytime and completed at the pace of the student.

In addition, non-credit courses, leisure education, customized courses and programs for business and industry, business consulting services, short-term workshops, Institute for Learning in Retirement, Pittsburgh Disabilities Employment Project for Freedom, and the Regional Learning Alliance are all integral parts of the Lifelong Learning function.

The offices of Alumni Relations, Career Services, Center for Lifelong & Community Development, Continuing Education, McKeever Environmental Learning Center, North Hills Center & Office of Corporate Partnerships have resources to develop specialized programs to meet the professional and personal enrichment needs of virtually any group, organization, business, or population. Further information is available through the Dean, or any of the offices.

Alumni Relations

Russell Wright Alumni House 724-738-2018

Director

Michael Saraka

Secretaries

Deborah Kedanis
Dorothy Thompson

Slippery Rock University has more than 45,000 living graduates. They are employed in a multitude of professions and live throughout the world. 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 scope of the association is dependent on the continued alumni affiliation with the university through association membership. Among the services that are provided by the Slippery Rock University Alumni Association are insurance programs, regional chapters, and the publication of the quarterly newsletter *The Rock Insider*. Significantly, the Alumni Association maintains seven scholarships. Six of the scholarships, the Madeline F. Stoops Scholarship, the Hallie Dugan Smith Scholarship, Eisaman Alumni Scholarship for Sophomore Students, the Maree McKay/Esther Smiley Scholarships, the Carl and Norma Laughner Scholarship, the Maggie Meise Scholarship, and the Watson Family Scholarship, are for academic excellence. The N. Kerr Thompson Scholarships are for athletics (see *Scholarships*).

The association also sponsors Homecoming and Alumni Reunion Weekend as well as special projects and events throughout the year. Additional information on the Alumni Association as well as upcoming events can be found on the alumni web site at **www.sru.edu** (click on "Alumni and Friends").

Career Services

103 Maltby Center 724-738-2028

Associate Directors

Anthony Linnan
John Snyder

Secretaries

Deena Edwards
Carolyn Leslie

Career Services offers services to assist students in planning and securing 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-taped mock interviews, administration of several standardized tests including Praxis, LSAT, 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 computerized 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** .

Center for Lifelong and Community Learning

Downtown Slippery Rock 724-738-1601

The center serves the continuing education needs of area businesses and individuals in the town of Slippery Rock and the surrounding area. Slippery Rock University's Institute for Learning in Retirement (ILR) is located in the Center for Lifelong and Community Learning.

Continuing Education

124 North Hall 724-738-2633

Director
Richard Comings

Secretary
Barbara McGinnis

Continuing Education exists to serve and support the personal enrichment, professional development, and training needs of the people and businesses of Western Pennsylvania. Programs, workshops, and seminars are developed for all ages-children, adults, retirees, and senior citizens. Offerings are available at a Slippery Rock University site or at a client's site of choice.

An integral part of Continuing Education is the Center for Lifelong and Community Learning. This center serves as a training and personal enrichment site for community and professional development programs and workshops. The offerings here come through either Continuing Education or the Institute for Learning in Retirement (ILR). Being separate from, but near the main campus, affords the users of the facility ample free and convenient parking and the amenities of a smaller and more intimate facility dedicated solely to their needs. The facility includes a branch office for Continuing Education, the office for the Institute for Learning in Retirement (ILR), two classrooms, and a computer laboratory. Videoconferencing is available at the Center

The Institute for Learning in Retirement (ILR)

The Institute for Learning In Retirement (ILR) at Slippery Rock University is a member-directed organization, providing lively learning experiences for mature adults who share a love of learning. The ILR is an affiliate of the Elderhostel Institute Network. The nominal membership dues cover as many classes in the ILR program as one wishes to take as well as other member benefits. The office and instructional site for the ILR is located at the Center for Lifelong and Community Learning in downtown Slippery Rock. Free and convenient parking is readily available. For additional information please call 724-738-1604 or email: **learning.retirement@sru.edu.**

McKeever Environmental Learning Center

Sandy Lake, PA 724-376-1000

Director
Francis Bires

Secretary
Karla Markl

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.

North Hills Center

Wexford, PA 724-933-8150

Executive Director of Corporate Partnerships
Patrick Gerity

Site Coordinator
Constance Bell

Secretary
Tracie Nehilla

Slippery Rock University's North Hills Center was established to meet the needs of the community of lifelong learners in the Pittsburgh area. At SRU in the North Hills graduate and undergraduate credit classes are offered in the evenings, Saturdays, and during the day to accommodate working adults who have other responsibilities. Noncredit classes are also available in computer software applications, nonprofit management skills, long term care administration, and a variety of other subjects.

The North Hills Center houses the Slippery Rock University Office of Corporate Partnerships that provides continuing professional development and training programs throughout the western Pennsylvania area. This office develops productive relationships with business, industry, community and government in order to best serve the region's workforce and economic development needs.

The Office of Corporate Partnerships specializes in developing creative solutions to business's training, performance, and productivity challenges. This office also has expertise in writing Customized Job Training Grants and Guaranteed Free Training contracts for those businesses that are qualified. Contact the North Hills Center for additional information.

Pittsburgh Disabilities Employment Project for Freedom

The Pittsburgh Disabilities Employment Project for Freedom, is a partnership involving Pittsburgh area businesses, the Office of Vocational Rehabilitation and the university's Division of Lifelong Learning. Its mission is to expand employment opportunities for those with disabilities. SRU hosts this program at the North Hills Center.

The Project for Freedom has trained people with disabilities in various technical oriented careers since 1998. These programs enable students to gain employment and lead rich and productive lives.

The Project for Freedom consistently strives for 100% placement and enjoys an extremely effective placement rate. Funding for the program is provided by the Office of Vocational Rehabilitation (OVR), the Bureau of Blindness and Visual Services (BVS), and the Veterans Administration and is contingent upon meeting the eligibility requirements of the agency.



COURSE **Descriptions**

Note: *All academic departments list the following courses: Experimental (190, 290, 390), Workshop (195, 295, 395, 495), and Selected Topics (198, 298, 398, 498). Please contact the individual department for more information.*

ACADEMIC SERVICES COURSES

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. (1 credit).

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. (1 credit)

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. (1 credit)

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. (3 credits)

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. (3 credits)

ACCOUNTING COURSES

ACCT 101: American Taxation

The course will provide a basic understanding of federal, state and local individual taxes and a history and background of government policy, philosophy and incentives enacted through the tax code. (Liberal Studies goal course-Our National Experience.) (3 credits)

ACCT 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) (3 credits)

ACCT 209: Fundamental Accounting I

A study of the elementary principles of accounting. The recording, classifying, summarizing, and interpretation of monetary transactions of the business firm are emphasized. The student is introduced to financial statement reporting and internal control. (3 credits)

ACCT 210: Fundamental Accounting II

Principles of financial accounting with emphasis on partnership and corporation financial statements and management accounting including product costing, internal decision making, and planning and control. *Prerequisite:* ACCT 209. (3 credits)

ACCT 230: Accounting Information Systems

An introduction to integrating accounting records with computers. Topics covered include: the role of AIS in the business environment, systems, accounting software, design, and accountants' use of spreadsheets, databases, and word processing. *Pre- or Co-requisites:* ACCT 210, CPSC 210 and microcomputer proficiency. (3 credits)

ACCT 240: 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. (3 credits)

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. (3 credits)

ACCT 309: Cost Accounting I

Control concepts and costing methods, including systems for management control, manufacturing inventory valuation, standard variance analysis, and budgeting. *Prerequisite:* ACCT 210, CPSC 210, MGMT/ECON 219, Advanced business standing. (3 credits)

ACCT 310: Cost Accounting II

Long range budget preparation, capital investments, transfer pricing, decision models in cost accounting, and quantitative methods in cost analysis. *Prerequisite:* ACCT 309 (3 credits)

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. *Prerequisite:* ACCT 308 or permission of the instructor. (3 credits)

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. *Prerequisite:* Advanced business standing. (3 credits)

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. *Prerequisite:* Advanced business standing. (3 credits)

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. *Prerequisite:* ACCT 240. (3 credits)

ACCT 347: Legal Environment of International Business

Public and private international laws that impact the management of an international business transaction and multinational company will be studied with an emphasis on trade, licensing and investment, extraterritorial application of U.S. law, treaty law, GATT, the European community, human rights, employment, and environmental regulation, in the international system. (3 credits)

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:* Advanced business standing and ACCT 314 or permission of the instructor. (3 credits)

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:* Advanced business standing and ACCT 314 or permission of the instructor. (3 credits)

ACCT 413: Advanced Accounting I

Advanced financial accounting theory and practice with emphasis on consolidations and partnerships. *Prerequisites:* ACCT 313 and advanced business standing. (3 credits)

ACCT 414: Advanced Accounting II
Continuation of ACCT 413 with emphasis on governmental and not-for-profit accounting and multinational accounting. *Prerequisite:* ACCT 413 or permission of the instructor. (3 credits)

ACCT 419: Auditing Systems
Continuation of ACCT 411 with emphasis on computerized accounting systems and auditing procedures. *Prerequisite:* ACCT 411 or permission of the instructor. (3 credits)

ACCT 450: Internship
Supervised placement in selected public and private agencies at appropriate institutions. *Prerequisites:* Application and permission of the instructor. (3-12 credits)

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, appliçation, and permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

ALLIED HEALTH COURSES

AHEA 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 this area. (3 credits)

AHEA 101: Personal Health
Addresses concerns pertaining to college living and life-long health. Emphasizes wellness with its emotional, physical, and social components. (3 credits)

AHEA 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:* For community health, exercise science, physical education, and school health majors only or by permission of the instructor. Freshman or sophomore standing only. (3 credits)

AHEA 103: Health Problems and Intervention Strategies
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:* For community health, exercise science, physical education, and school health majors only or by permission of the instructor. Freshman or sophomore standing only. (3 credits)

AHEA 111: Introduction to Health Services Administration
This course provides an overview of health services administration. It includes topics such as: structure, function, and finance of health care organizations; management of health care; and the roles of health care professionals. (3 credits)

AHEA 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. (3 credits)

AHEA 210: Principles of Community 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. (3 credits)

AHEA 211: Women and Health Care
Examines the role of women as consumers and as both formal and informal providers of health services. (3 credits)

AHEA 231: Analysis of Health Care Organizations
Analyzes the organization of ambulatory, acute, long term care, and mental health services in the United States. Includes the structures and functions of both institutional and non-institutional health care organizations and draws upon a number of conceptual frameworks useful in understanding change in the delivery system. Course requires field experience. (3 credits)

AHEA 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. (3 credits)

AHEA 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:* AHEA 102 and 103 or permission of the instructor. (3 credits)

AHEA 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:* BIOL 216 and 217, AHEA 110 or permission of the instructor. (3 credits)

AHEA 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:* CHEM 104 or 107 and BIOL 210 or permission of the instructor. (3 credits)

AHEA 311: International Health
Examines significant health problems affecting populations in various areas of the world. Focuses on the integration of disease patterns with geographic areas and cultural practices. *Prerequisite:* Junior standing. (3 credits)

AHEA 312: Data Management for Health Science
Explores methods of data collection, manipulation and reporting for health science. Includes computer applications. *Prerequisite:* MATH 114 or permission of the instructor. Basic computer literacy is recommended. (3 credits)

AHEA 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. *Prerequisite:* AHEA 312. (3 credits)

AHEA 314: Nutrition and Health (moved)
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. (3 credits)

AHEA 316: Human Sexuality
Surveys a broad range of information about human sexuality from biological, psychological, sociological, religious, and medical perspectives. (3 credits)

AHEA 332: Health Services Planning and Evaluation
Provides knowledge about comprehensive health planning, comparing concepts, models, and approaches. *Prerequisites:* AHEA 111, 231, or permission of the instructor. (3 credits)

AHEA 333: Professional Development
Prepares students for entry into the work force by investigating models of behaviors, attitudes, and competencies of successful practitioners in the health care field. *Prerequisite:* Junior standing or above. (3 credits)

AHEA 335: Current Topics in Health Care
This course critically reviews current topics in health care. It analyzes topics in areas such as health care law, economics of health care, health care education, consumerism, organ donation, trends, and research likely to be confronted by health care administrators, educators, consumers, employers, and others interested in health care. (3 credits)

AHEA 362: Introduction to School Health Education
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:* include successful completion of AHEA 262 (minimum grade of "C") and acceptance into the College of Education. (3 credits)

AHEA 406: Health Measurement 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:* AHEA 210 and senior standing or permission of the instructor. (3 credits)

AHEA 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:* AHEA 313 Biostatistics or a statistics course approved by the instructor with permission of the instructor and senior standing. (3 credits)

AHEA 414: Death and Dying
This course develops effective understanding of all aspects of death and dying including: grief, funerals, children's view of death, psychological aspects of death, doctors and death, and euthanasia. (3 credits)

AHEA 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. *Prerequisite:* AHEA 314 or Biol 216. (3 credits)

AHEA 433: Health Services Management
Involves the management theories and practices within health care settings. *Prerequisites:* AHEA 111, 231. (3 credits)

AHEA 434: Marketing Health Services
Provides knowledge and skills regarding the function of marketing in a health care facility. *Prerequisites:* AHEA 111, 231. (3 credits)

AHEA 435: Medical and Health Care Law
Provides the health care professional or student an overview of the legal system. Covers, but not limited to, medical malpractice, abortion and the law, euthanasia, insurance, duty to inform, and waiver. (3 credits)

AHEA 436: Technology in Health Care
Provides information on the multi-disciplinary computer systems used in health care settings for patient care, administration, management, educational preparation, and research. *Prerequisite:* CPSC 210. (3 credits)

AHEA 437: Financial Management of Health Care Organizations
Provides students with important concepts, issues, tools and vocabulary that managers need when assuming the financial responsibilities of health care organizations. *Prerequisites:* ACCT 205, AHEA 111, 231. (3 credits)

AHEA 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:* AHEA 111, 231, or permission of the instructor, and senior standing as a health-related major. (3 credits)

AHEA 441: Long Term Care Administration I
Provides general administrative knowledge about personnel, financial, and physical resource management specific to the long term care environment. *Prerequisite:* Senior standing as an HSA major only. (6 credits)

AHEA 442: Long Term Care Administration II
Provides general administrative knowledge about resident care, marketing, public relations, and government regulations specific to the long term care environment. *Prerequisites:* AHEA 441 and senior standing as a HSA major only. (3 credits)

AHEA 443: Ambulatory Care Management

Examines the changing health care policy framework and emphasis on ambulatory care services. Health maintenance organizations, managed care, critical pathways, and other alternative systems will be explored. *Prerequisites:* AHEA 111, 231, or permission of the instructor, and senior standing as a health related major. (3 credits)

AHEA 444: Educational Program Management in Health Care Environments

Provides information on the types of educational programs mandated by federal, state, and professional associations in acute, long term care, and outpatient settings. Emphasis will be placed on the importance of educational programs to the delivery of quality services within the health care industry. *Prerequisites:* AHEA 111, 231, or permission of the instructor. (3 credits)

AHEA 450: Internship

Provides opportunity to apply theory and develop competencies through a work-related experience in an appropriate cooperating enterprise. Summers only. *Prerequisites:* Program/major specified requirements and/or approval of instructor. (12 credits)

AHEA 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. (12, 6, or 3 credits)

AHEA 462: Teaching and Assessment in Health Education

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 include successful completion of AHEA 262 and 362 (minimum of "C") and acceptance into the College of Education. (3 credits)

AHEA 490: Independent Study

Students study under the supervision of a professor on a specific and significant topic. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-6 credits)

ART COURSES

FOUNDATIONS:

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. No prerequisite. (3 credits)

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. No prerequisite. (3 credits)

ART 105: Basic Studio Drawing

ART 106: Basic Studio Painting

ART 107: Basic Studio Photography

ART 108: Basic Studio Printmaking

ART 109-112: Basic Studio

ART 109: Basic Studio Metalsmithing

ART 110: Basic Studio Sculpture

ART 111: Basic Studio Fibers

ART 112: Basic Studio Ceramics

ART 114 Basic Studio Digital Media

Nine courses that provide the student with the option to work painting (106) photography (107) printmaking (108) sculpture (110) fibers (111) ceramics (112) or digital media (114). Introductory courses in the studio techniques and the primary functions of one of these two and three dimensional studio disciplines. Through creative studio practice, students discover relationships relevant to their role as an artist. (No number may be repeated.) (3 credits)

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. No prerequisite. (3 credits)

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. (3 credits)

ART 205-214: Art Synthesis.

ART 205: Art Synthesis Drawing

ART 206: Art Synthesis Painting

ART 207: Art Synthesis Photography

ART 208: Art Synthesis Printmaking

ART 209: Art Synthesis Metalsmithing

ART 210: Art Synthesis Sculpture

ART 211: Art Synthesis Fibers

ART 212: Art Synthesis Ceramics

ART 213: Art Synthesis Design

ART 214: Art Synthesis Digital Media
Ten courses providing student options working in drawing (205), painting (206), photography (207), printmaking (208), metalsmithing (209), sculpture (210), fibers (211), ceramics (212), and design (214). Emphasis is given to the synthesis of the student experience through art. *Prerequisites:* One course at the basic studio level chosen from ART 100, 101, and 105 through 114. (Limited to 6 credits in any one studio.)

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. (3 credits)

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. (3 credits)

ART 300: Art Seminar
A seminar for advanced art studio majors, designed to sharpen the students' critical and evaluation skills. *Prerequisites:* 6 credits of advanced studio. (3 credits)

ART 305-314: Advanced Studio

ART 305: Advanced Studio Drawing

ART 306: Advanced Studio Painting

ART 307: Advanced Studio Photography

ART 308: Advanced Studio Printmaking

ART 309: Advanced Studio Metalsmithing

ART 310: Advanced Studio Sculpture

ART 311: Advanced Studio Fibers

ART 312: Advanced Studio Ceramics

ART 313: Advanced Studio Design

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. Ten courses provide student options in working with drawing (305), painting (306), photography (307), printmaking (308), metalsmithing (309), sculpture (310), fibers (311), ceramics (312), and design (313), and digital media (314). *Prerequisites:* 6 credits chosen from ART 205 through 214 for courses ART 305 through 314. (Limited to 9 credits in any one studio.)

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. (1 credit)

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. (3 credits)

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. *Prerequisites:* ART 225. (3 credits)

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. *Prerequisite:* ART 225. (3 credits)

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. *Prerequisites:* ART 225 or 325 or 335. (3 credits)

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. *Prerequisite:* ART 225 or 325 or 345. (3 credits)

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. *Prerequisites:* ART 225 or 325 or 335, 345 or 355 or permission of instructor. (3 credits)

ART 405-414: Senior Studio

ART 405: Senior Studio Drawing

ART 406: Senior Studio Painting

ART 407: Senior Studio Photography

ART 408: Senior Studio Printmaking

ART 409: Senior Studio Metalsmithing

ART 410: Senior Studio Sculpture

ART 411: Senior Studio Fibers

ART 412: Senior Studio Ceramics

ART 413: Senior Studio Design

ART 414: Senior Studio Digital Media
Ten courses in studio work utilizing studio facilities to the accomplishment of the students' senior level artistic objectives. Drawing (405), painting (406), photography (407), printmaking (408), metalsmithing (409), sculpture (410), fibers (411), ceramics (412), design (413), and digital media (414). *Prerequisites:* ~~9~~ 6 credits of advanced studio. (3 credits may be repeated with the instructor's permission for a maximum of 9 credits).

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. *Prerequisites:* ART 325, 335, 345, 355, 365.(3 credits)

ART 425-432: Senior Project

ART 425: Senior Project Drawing

ART 426: Senior Project Painting

ART 427: Senior Project Photography

ART 428: Senior Project Printmaking

ART 429: Senior Project Metalsmithing

ART 430: Senior Project Sculpture

ART 431: Senior Project Fibers

ART 432: Senior Project Ceramics

ART 433: Senior Project Design

ART 434: Senior Project Digital Media

Ten courses providing independent study in either drawing (425), painting (426), photography (427), printmaking (428), metalsmithing (429), sculpture (430), fibers (431), ceramics (432), digital media (434), culminating in a public exhibition demonstrating the students' artistic stance. *Prerequisite:* Permission of the instructor. (3 credits)

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. *Prerequisite:* Completion of 24 credits in studio art. (3,6,12 credits)

ART 475-484: Extended Studio

ART 475: Extended Studio Drawing

ART 476: Extended Studio Painting

ART 477: Extended Studio Photography

ART 478: Extended Studio Printmaking

ART 479: Extended Studio Metalsmithing

ART 480: Extended Studio Sculpture

ART 481: Extended Studio Fibers

ART 482: Extended Studio Ceramics

ART 484: Extended Studio Digital Media

Advanced work in one of nine studios, including drawing (475), painting (476), photography (477), printmaking (478), metalsmithing (479), sculpture (480), fibers (481), ceramics (482), or digital media (484). *Prerequisite:* Permission of the instructor. (1 credit)

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. (1-3 credits)

BIOLOGY COURSES

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. (1 credit)

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. (3 credits)

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. (3 credits)

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. (4 credits)

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. (3 credits)

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. (3 credits)

BIOL 201: General Botany

Basic biochemical, morphological, and physiological aspects of plant biology as they relate to evolution. Includes a lab. *Prerequisite:* BIOL 101 or 102 or 104. (4 credits)

BIOL 207: Land Plants and Their Environment

This course for non-biology majors surveys the common plants native to Pennsylvania. Includes a lab. (3 credits)

BIOL 208: Introduction to Wildlife Management

For non-biology majors, this course covers basic ecological principles with emphasis on the taxonomy and life histories of vertebrate animals. Includes a lab. (3 credits)

BIOL 210: Medical Microbiology

The study of pathogenic microorganisms to include taxonomy, structure, biological activities, host defense mechanisms, disease transmission, and disease states. Includes a lab. *Prerequisite:* BIOL 101 or 102 or 216. (3 credits)

BIOL 212: General Zoology

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. *Prerequisite:* BIOL 101 or 102 or 104. (4 credits)

BIOL 213: Medical Immunology
A lecture and laboratory course for medical technology majors which emphasizes immunological principals of medical importance. *Prerequisite:* BIOL 210. (1 credit)

BIOL 214: Medical Parasitology
A lecture and laboratory course for medical technology majors which emphasizes the protozoans and metazoa of medical importance. *Prerequisite:* BIOL 210. (1 credit)

BIOL 215: Medical Mycology
A lecture and laboratory course for medical technology majors which emphasizes the fungi of medical importance. *Prerequisite:* BIOL 210. (1 credit)

BIOL 216-217: Anatomy and Physiology
A sequence of 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. Both courses include labs. (3 credits each)

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. *Prerequisite:* BIOL 101 or 102 or 104. (4 credits)

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. *Prerequisite:* Advanced standing and BIOL 101 or 102 or 104. (3 credits)

BIOL 305: Aquatic Plants
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. (3 credits)

BIOL 306: Freshwater Biomonitoring
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. *Prerequisite:* BIOL 101 or 104 and CHEM 108. (3 credits)

BIOL 310: Plant Systematics
Evolutionary trends in floristic morphology are used to examine family relationships among the major groups of vascular plants. Includes a lab. *Prerequisite:* BIOL 201. (3 credits)

BIOL 311: Entomology
Insects, including their taxonomy, structure, function, ecology, and economic importance. *Prerequisite:* BIOL 212. (3 credits)

BIOL 320: Ornithology
Anatomy, physiology, taxonomy, ecology, and behavior of birds. Two weekend field trips are required. Includes a lab. *Prerequisite:* BIOL 212. (3 credits)

BIOL 325: Biometry
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. (3 credits)

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:* BIOL 250 and CHEM 200 or 201. (3 credits)

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. *Prerequisites:* BIOL 250 and CHEM 200 or 201. (3 credits)

BIOL 340: Vertebrate Anatomy
A comparative study of the adult structure of the organs and systems of representative vertebrates. Laboratory included. *Prerequisite:* BIOL 212. (3 credits)

BIOL 343: Embryology
Developmental processes of vertebrate embryology. A comparative study of gametogenesis, fertilization, cleavage, gastrulation, organogenesis, and embryonic adaptations. Includes a lab. *Prerequisite:* BIOL 340 or permission of the instructor. (3 credits)

BIOL 345: Intro. 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. *Prerequisite:* The successful completion (or the equivalent) of two years of basic science courses at the university level. (2 credits)

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:* BIOL 201, 212, 250. (3 credits)

BIOL 357: Environmental Microbiology
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:* BIOL 101 or 104 or equivalent, CHEM 200 or 202. (4 credits)

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. (3 credits)

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:* BIOL 250 and CHEM 201 or CHEM 202. (3 credits)

BIOL 371: Vertebrate Field Zoology
Taxonomy, life histories, and ecological relationships of representative vertebrates are stressed. Several field trips are required. (3 credits)

BIOL 401: Ecology
Emphasis is placed on the structure, composition, and dynamics of ecosystems. Lab work primarily consists of field studies. *Prerequisite:* BIOL 101 or 104, and CHEM 108 and junior standing. (3 credits)

BIOL 405: Animal Physiological Ecology
The adaptations of animals to deal with specialized environmental situations are studied at levels ranging from biochemical to organismal. Includes a lab. *Prerequisites:* BIOL 104, 212, CHEM 107, 108. (4 credits)

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. *Co-requisite:* CHEM 201. (3 credits)

BIOL 430: Pathogenic Microbiology
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. *Prerequisite:* BIOL 330. (3 credits)

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. (1-3 credits, repeatable up to 15)

BIOL 451: Plant Physiology
A lecture-laboratory study of the functional relationships of the plant body including such topics as nutrition, water relations, photosynthesis, photoperiodism, hormones, and growth processes. *Prerequisites:* BIOL 201 and CHEM 201. (3 credits)

BIOL 465: Plant Anatomy
A macroscoic 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. *Prerequisite:* BIOL 201. (3 credits)

BIOL 470: Histology
Microscopic structure and arrangement of tissues in multicellular organisms. Prepared microscopic slides of representative animal organs are studied. Includes a lab. *Prerequisite:* BIOL 212 or permission of the instructor. (3 credits)

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. (1-3 credits, repeatable up to 6)

BIOL 492: Biology Seminar
For junior and senior biology majors. Each semester a different area of current research interest is chosen for study. (1 credit)

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. (1-3 credits)

CHEMISTRY COURSES

CHEM 104: Introductory 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. (3 credits)

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 curse 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. *Prerequisite:* CHEM 104. (3 credits)

CHEM 107: General Chemistry I
Topics include nomenclature, stoichiometry, kinetic-molecular theory, gas laws, electronic structure, periodicity, and chemical bonding. Stoichiometry is emphasized. *Prerequisites:* ACSD 110 and co-requisites MATH 120, or 125, or 225. (3 credits)

CHEM 108: General Chemistry II
Topics include intermolecular forces, solutions, colloids, chemical kinetics, thermodynamics, equilibria (acid-base, solubility, and complex ion), electrochemistry, and the transition elements. *Prerequisite:* CHEM 107. (3 credits)

CHEM 110: Contemporary Chemistry Laboratory
Laboratory to accompany Chemistry 103 providing basic chemistry and environmentally related experiences. One two-hour laboratory per week. *Co-requisite:* CHEM 104 (1 credit)

CHEM 111: General Chemistry I Lab
A laboratory to accompany CHEM 107. Laboratory experiments are designed to develop basic laboratory skills and illustrate concepts. *Co-requisite:* CHEM 107. (1 credit)

CHEM 112: General Chemistry II Lab
A laboratory to accompany CHEM 108. Laboratory experiments illustrate the concepts of General Chemistry II. *Prerequisites:* CHEM 111, *Co-requisite:* CHEM 108. (1 credit)

CHEM 113: Clinical Chemistry Laboratory
Laboratory to accompany CHEM 103 providing basic chemistry and health-related experiences. One two-hour laboratory per week. *Co-requisite:* CHEM 104. (1 credit)

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:* CHEM 108, 112. (3 credits).

CHEM 201-202: Organic Chemistry I and 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:* (1) For CHEM 201: CHEM 108, 112; (2) For CHEM 202: CHEM 201. (3 credits)

CHEM 211-212: Organic Chemistry Laboratory I and II
A laboratory course in which students employ the synthetic techniques and analytical procedures of organic chemistry. *Prerequisites:* (1) For CHEM 211: CHEM 108 and 112, *and Co-requisite:* concurrent registration in CHEM 201 or completion of CHEM 201 or (2) For CHEM 212: CHEM 211 and concurrent registration in CHEM 202 or completion of CHEM 202. (1 credit each course)

CHEM 240: Industrial Hygiene
Requirements to preserve worker health and safety will be surveyed. *Prerequisites:* CHEM 107, 108, and 200. (3 credits)

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:* CHEM 108, 112. (3 credits)

PHYS/CHEM 301: Physical Chemistry I
Thermodynamics and chemical kinetics. *Prerequisites:* CHEM 108, 112, PHYS 212 or 213, and MATH 230. (3 credits)

CHEM 302: Physical Chemistry II
Quantum mechanics and spectroscopy. *Prerequisites:* CHEM 108, 112, PHYS 211, 212 or 213 and MATH 231. (3 credits)

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. *Co-requisite:* CHEM/PHYS 301. (1 credit)

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. Concurrent registration: CHEM 302. (1 credit)

CHEM 335: Biochemistry
Investigates the basic theme of intermediary metabolism. A background for this study is gained through study of the chemistry of cellular constituents. (3 credits)

CHEM 336: Biochemistry Laboratory
A laboratory course in which the student uses techniques employed in biochemical investigations. *Prerequisites:* CHEM 212 *and Co-requisite:* CHEM 335. (1 credit)

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:* CHEM 108 and 112. (4 credits)

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. *Prerequisite:* CHEM 108, 112. (3 credits)

CHEM 351: Analytical Chemistry Lab
Students develop practical skills employed in the quantitative analysis of chemical systems. *Prerequisite:* CHEM 108, 112 *and Co-requisite:* CHEM 350. (1 credit)

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. *Prerequisite:* CHEM 108 and 112. (4 credits)

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. *Prerequisite:* CHEM 108, MATH 225, PHYS 211. Offered in alternate years. (3 credits)

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:* Concurrent registration in CHEM 425 and knowledge of a computer language. (1 credit)

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:* CHEM 108 and 112. (3 credits)

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. *Co-requisite:* CHEM 302. Offered in alternate years. (3 credits)

CHEM 450: Chemistry Internship
Supervised placement and research in selected public and private agencies. *Prerequisite:* 16 credits (minimum) in chemistry and Junior or Senior standing. (Credits earned will be counted as free electives and will not be counted toward the chemistry major.)

CHEM 460: Polymer Chemistry
A one semester introductory course that covers the synthesis, kinetics, properties, and applications of polymers. *Prerequisites:* CHEM 202 or permission of the instructor. (3 credits)

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. *Prerequisite:* CHEM 202 and 212. (5 credits)

CHEM 490: Independent Study

Independent research under the guidance of a faculty advisor. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

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. (1 credit)

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. *Prerequisite:* permission of the chairperson. (1-3 credits)

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. (1-3 credits)

CHINESE COURSES

CHIN 101,102,103: Chinese Language and Culture I, II, III

These courses will provide an introduction to the Mandarin language. *Prerequisite:* CHIN 101 or equivalent for CHIN 102; CHIN 102 or equivalent for CHIN 103. (3 credits each)

CHIN 202: Intermediate Chinese I

Prerequisite: CHIN 103 or equivalent. (3 credits)

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. (3 credits)

COMMUNICATION COURSES

COMM 110: Communication Concepts

An overview of basic theories concerning the communication process. Recommended as a basis for major study in the area. (3 credits)

COMM 112: Message and Content Design

This introductory course involves the student in the study of message and content design. The student will be acquainted with the different stages in the development of communication projects and the elements. (3 credits)

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. (3 credits)

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:* ENGL 101 or equivalent and sophomore standing. (3 credits)

COMM 201: Digital Imaging

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. *Prerequisite:* COMM/ART 115. (3 credits)

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. (3 credits)

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. (3 credits)

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. (3 credits)

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. (3 credits)

COMM 242: News Writing

Basic course in journalistic news structuring techniques and straight news writing. Students write news stories and conduct news interviews. *Prerequisite:* ENGL 101 or exemption (3 credits)

COMM 247: Photojournalism
Photojournalism upholds the professional standards specific to newspaper photography and the recording of news events visually. Students are 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. Photographic processing and printing skills are also covered as part of the course content. (3 credits)

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. (3 credits)

COMM 258: Interactive Multimedia I
Emphasis on the emergence of contemporary, evolving technologies that use a variety of devices and techniques to marry images, graphics, text, voice, and music and enhance their effect with interactivity between user and the system. *Prerequisites:* Any computer science course. (3 credits)

COMM 262: Broadcast Announcing
This skill course is intended to develop a mastery of voice techniques used in broadcasting. The course focuses on analytical and vocal techniques associated with on-air announcing for radio and television. Topics include voice analysis, pronunciation and articulation, broadcasting equipment and announcing for commercials, music, sports and news. (3 credits)

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. *Prerequisite:* COMM 110. This course is a prerequisite or co-requisite for all upper division communication courses for majors. (3 credits)

***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. *Prerequisite:* COMM 200. (3 credits)

***COMM 314: Dyadic and Group Communication Processes**
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. *Prerequisite:* COMM 215. (3 credits)

***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. (3 credits)

COMM 318: Professional Presentation
Principles and applications of communication techniques and media for presentations and processes common to professional settings. *Prerequisites:* Senior standing, CPSC 110 or equivalent experience and familiarity with PC's and software recommended. (3 credits)

***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 and ethical guidelines in communications practice is emphasized. *Prerequisite:* COMM231. (3 credits)

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:* COMM 231 and 256. (3 credits)

COMM 334: Publication Production II
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. *Prerequisite:* COMM 232. (3 credits)

***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. *Prerequisite:* COMM 242. (3 credits)

***COMM 343: Feature Journalism**
Course will focus on writing feature articles for newspapers and magazines. (3 credits)

***COMM 344: The Editorial Function: Copy**
Methods and practices of copy editing that are applicable to newspapers, magazines, and technical publications. *Prerequisite:* COMM 242. (3 credits)

COMM 346: Investigative Reporting
Application of advanced news writing, reporting and newsgathering techniques to produce in-depth, explanatory news stories on important public affairs issues. *Prerequisite:* COMM 242. Also recommended COMM 245. (3 credits)

COMM 348: Advanced Reporting
Instruction in writing the news story, discussions of reportorial ethics and techniques, and in-field coverage of news events, feature stories and speeches. *Prerequisite:* COMM 242. (3 credits)

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 A/B Roll and Digital Non-linear editing. Continued use of camera, lighting and sound techniques set the stage for an in-depth study of skills associated with program completion. *Prerequisite:* COMM 254. (3 credits)

COMM 353: Media Project Management

This course is intended to develop student mastery of the emerging environment of digital information. The course focuses on data management, budgetary issues, strategy development, team dynamics, organizational behavior, time management and legal issues. (3 credits)

*COMM 354: Television News and Studio Production

The course covers the process and techniques of multi-camera video production. Students gain experience in studio and control room operation and production roles. Students are introduced to television news reporting. The course trains students to write news stories and integrate news packages produced in the field for presentation in a multi-camera studio news broadcast. Students learn the style and format of broadcast news writing. *Prerequisite:* COMM 242 and 254. (3 credits)

*COMM 355: Television News and Field Production

An advanced course in the processes and techniques of single-camera field production and editing. Students will report, videotape, write, and edit packages for television news. During the course of the semester, students are assigned to cover a variety of news stories including spot news, political news, business news, sports news and light features. *Prerequisites:* COMM 242 and 254. (3 credits)

COMM 357: Digital Audio Production

This course is intended to develop student mastery of audio production techniques. The course focuses on theoretical and technical issues related to studio audio production including a review of analog recording and editing. The course examines professional standards of signal processing, multi-track mixing, layering, synchronization, and digital editing techniques. Students are required to review current writings specific to professional practices in addition to the hands-on experience of producing audio programs in various formats. (3 credits)

COMM 359: Interactive Multimedia II

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:* COMM 201, 254, 258. (3 credits)

*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:* advanced standing, COMM 110, 232, 254, or consent of instructor. (3 credits)

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. (3 credits)

COMM 363: 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 principles of computer-assisted reporting. *Prerequisite:* COMM 242. (3 credits)

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. *Prerequisite:* Junior standing, COMM 293 or approval of instructor. (1 credits)

*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:* Senior standing and a major or minor in communication. (3 credits)

*COMM 412: Speech, Language & Human Experience

Study of verbal and nonverbal communicative behavior in terms of the form-function relationship, the relationship of communication to culture and situation, and communication as a mode cognition. *Prerequisite:* advanced standing. (3 credits)

*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. *Prerequisite:* advanced standing. (3 credits)

*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:* COMM 110 and 200. (3 credits)

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. *Prerequisite:* advanced standing. (3 credits)

***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. *Prerequisite:* COMM 332,333. Also recommend COMM 232 and/or 254. (3 credits)

***COMM 441: Issues in Journalism**
Study of contemporary controversies and problems in journalism. *Prerequisite:* Advanced standing. (3 credits)

COMM 449: Communication Projects
This course provides students an opportunity to investigate, in-depth, approved topics in communication research or applied communication. *Prerequisites:* Comm. 310, Permission of the instructor, successful completion of one 300 level communication course in the proposed area of study. (3 credits)

***COMM 450: Internship**
Supervised placement or research in selected private or public agencies. *Prerequisite:* Junior Status, 18 credits in the major, 2.500 QPA in major, 2.000 QPA overall. (3 to 12 credits)

***COMM 455: History of Broadcasting**
Survey of the history and development of radio and television broadcasting in the United States. (3 credits)

***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. *Prerequisite:* COMM 251. (3 credits)

***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. (3 credits)

COMM 460: Interactive Multimedia III
This capstone course moves students into interactive learning development using online or computer-mediated distribution models. This course exposes students to learning applications used by corporate training developers, instructional designers and user-defined content developers. The course continues to build on the use of images, sound, animation, motion and text, but progressively enhances content development by adding interactive learning through user-defined interfaces. The course comprises projects that accent the role of in-house communicators and instructional designers. *Prerequisite:* COMM 359. (3 credits)

***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. *Prerequisite:* Advanced standing. (3 credits)

***COMM 490: Independent Study**
Prerequisite: Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (3 credits)

COMM 493: Senior 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 further develop a portfolio, attend job seminars, conduct mock and actual interviews, participate in an on-site mentoring/shadow program and make a public presentation of their portfolio. *Prerequisite:* Senior standing, COMM 393 or approval of instructor. (1 credits)

***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. (3 credits)

* COMM 310 is a prerequisite or co-requisite for all majors.

COMPUTER SCIENCE COURSES

CPSC 100: Introduction to Slippery Rock University Computing Environment
A one credit course to introduce students to the computing environment at Slippery Rock University. Topics covered will include the PC and mainframe environments, accessing information services, ethics of the computing era, and the future of computing at Slippery Rock University. (1 credit)

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. (3 credits)

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. *Prerequisite:* ASSD 110. (3 credits)

CPSC 140: Introduction to 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. *Prerequisite:* ASSD 110. (3 credits)

CPSC 150: 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. *Prerequisite:* CPSC 140 or permission of the instructor. (4 credits)

CPSC 207: System Software and Architecture for End Users

This course introduces the student to prevalent operating systems and the hardware and networking of those systems. User level commands in the current PC operating system and the Unix operating system for managing files, system utilities, and task management are introduced. The architecture of the PC and how it relates to the OS is discussed conceptually and physically examined. The hardware and software required for inter-connecting systems is discussed. (3 credits)

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. *Prerequisite:* Microcomputer proficiency. (3 credits)

CPSC 212: Computers in Education

A survey of ways computers are used in education, with emphasis on both secondary and elementary education. Practical work in computer-aided instruction is provided. *Prerequisite:* Progress in an Education program. (3 credits)

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:* CPSC 130 and 140. (3 credits)

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. *Prerequisite:* CPSC 150. (3 credits)

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. *Prerequisite:* advanced standing. (3 credits)

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:* CPSC 110 or microcomputer proficiency and advanced standing. (3 credits)

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, Purl, awk, and the Common Gateway Interface. The student is expected to have programming experience and knowledge of the Unix and Windows environments. *Prerequisite:* CPSC 127, 217. (3 credits)

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:* CPSC 130, or 140, or 210. (3 credits)

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. *Prerequisite:* CPSC 317. (3 credits)

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. *Prerequisite:* CPSC 140. (3 credits)

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:* CPSC 140 or 180 and a statistics course. (3 credits)

CPSC 370: Assembly Language and Machine Organization
Computer instruction sets, organization, and elementary architectural features are studied and used via programming in assembly language. *Prerequisite:* CPSC 150. (3 credits)

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. *Prerequisite:* CPSC 150. (3 credits)

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, control mechanisms, conversions, storage management, reliability, portability, modularity, documentation, implementation methods, and language extensibility. *Prerequisite:* CPSC 150. (3 credits)

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:* CPSC 150 and MATH 131. (3 credits)

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. *Prerequisite:* CPSC 220. (3 credits)

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. *Prerequisite:* CPSC 150. (3 credits)

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: CPSC 327 and 413. (3 credits)

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. *Prerequisite:* CPSC 323 and 343

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:* Computer science or information systems major with junior or senior standing, 2.750 QPA overall, 3.000 major QPA, and application to the department one semester prior to the term in which the internship is to be undertaken. (3-12 credits, where 1 credit is 40 work hours)

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. *Prerequisite:* CPSC 374 or permission of the instructor. (3 credits)

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:* CPSC 370, 374, 376, and 378. (3 credits)

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:* CPSC 370, 374, 376, and 378. (3 credits)

CPSC 474: Computer Architecture
Architectural features of computer systems are studied. Central processors, storage systems, various forms of parallelism, microcode, and system performance are included as central topics. Hardware support for vector operations, programming languages, concurrency, and distributed processing are included, along with salient architectural features of concurrent integrated processors. *Prerequisite:* CPSC 370. (3 credits)

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:* CPSC 374. (3 credits)

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. *Prerequisite:* CPSC 374 or permission of the instructor. (3 credits)

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. *Prerequisite:* CPSC 374 (3 credits)

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. (1-3 credits)

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. *Prerequisite:* Permission of the instructor. (1-3 credits)

COUNSELING AND EDUCATIONAL PSYCHOLOGY COURSES

CEDP 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. (3 credits)

CEDP 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. (3 credits)

CEDP 249: Child Development
A study of the various stages of development from conception to adolescence. Attention is directed to the physical, emotional, intellectual and social development of the child. (3 credits)

CEDP 250: Adolescent Psychology
A study of the physical, mental and emotional development during the changes from childhood and the influence on attitudes and behavior of the age group in relation to the theories. Psychological principles are applied to the problems of family, community and school adjustment, as well as to the development of the persons. (3 credits)

CEDP 315: Group Facilitation and Counseling
Basic techniques of facilitation of counseling, human relations, and decision-making groups, designed for students preparing for careers in human services, business, industry, and public administration. *Prerequisite:* CEDP 301 also CEDP 310 is recommended. (3 credits)

CEDP 342: Educational Psychology
Application of psychological learning theories to the educational process. (3 credits)

CEDP 395: Undergraduate Workshops
Special topics of interest to undergraduates and selected community members. (Variable credit)

CEDP 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. (1-3 credits)

DANCE COURSES

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. (3 credits)

DANC 101: Wellness for Dancers
This course will cover conditioning, relaxation, and injury prevention techniques specific to the needs of dancers. Students will be assessed in all areas to determine strengths and deficiencies, and programs will be developed to allow each student to work on their individual assessments. Pilates-based conditioning and Bartenieff Fundamentals will also be included. (1 credit)

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. (1 credit)

DANC 112: Tap Dance I
Various techniques, styles, and tap dance steps will be explored in this course. A historical overview of tap dance and its development as an American art form (with African and European connections) will be presented and discussed. Combinations of steps and dance compositions, both student and instructor created, will be learned and performed. Previous tap dance experience is beneficial, but not required. (1 credit)

DANC 120: Modern Dance I
This beginning level class 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. (1 credit)

DANC 121: Ballet I
The beginning student will develop a basic understanding of ballet terminology and technique and develop artistry through performance. (1 credit)

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. (1 credit)

DANC 199: LMA/Performance Techniques
This course is designed to build on the performance principles learned in Composition I and technique classes. The student will deepen their awareness of the techniques of performance through exploring Laban Movement Analysis and investigating the elements of performance. (1 credit)

DANC 200: Dance Composition
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. (3 credits)

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. (3 credits)

DANC 220: Modern Dance II
This second level class is a furthering and continuation of setting the foundation established in Modern I, providing students with the information and the tools needed to extend technique, skills and performance quality. Course may be repeated for a maximum of 6 credits. *Prerequisite:* Permission of instructor. (2 credits)

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. Course may be repeated for a maximum of 6 credits. *Prerequisite:* Permission of instructor. (2 credits)

DANC 222: Jazz Dance II
This intermediate level class is a furthering and continuation of setting the foundation in jazz dance. This second level jazz technique course is designed to refine and enhance the student's performance skills, technique, and stylistic approaches to jazz dance leading to proficiency in jazz technique. Course may be repeated for a maximum of 6 credits. *Prerequisite:* Permission of instructor. (2 credits)

DANC 223: Introduction to Creative Dance
This course is the foundation course for the student who desires to develop personal skills in teaching methods of creative dance. The teaching and learning process as it applies to children's dance and creative movement will be explored. (1 credit)

DANC 224: Improvisation
This course provides the student opportunities to explore the processes of discovering, creating and performing movement spontaneously. (2 credits)

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). (3 credits)

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. *Prerequisite:* DANC 100 (3 credits)

DANC 318: Dance History I: Primitive to the Nineteenth Century
This course examines the historical and philosophical aspects of dance as an art form and as a social and cultural medium from primitive times through the nineteenth century. The focus in on approaches, styles, and contributions of leading dance artists of the historical eras. (3 credits)

DANC 320: Modern Dance III
This third level requires the student with an established foundation in modern dance to extend their knowledge and acquire additional understanding of technical material and performance quality. Course may be repeated for a maximum of 6 credits. *Prerequisite:* Permission of instructor. (2 credits)

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. Course may be repeated for a maximum of 6 credits. *Prerequisite:* Permission of instructor. (2 credits)

DANC 322: Jazz III
This advanced level class 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. *Prerequisite:* Permission of instructor. (2 credits)

DANC 323: Teaching of Dance
This course is designed to introduce students to the theory and practice of sound dance teaching. 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 150, which allows the students to have practical teaching experiences. *Prerequisite:* DANC 223 *and Co-requisite* DANC 350. (3 credits)

DANC 324: Music for Dance
This course is designed to provide students with information regarding music for dance performance, production, and accompaniment. (3 credits)

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. (3 credits)

DANC 350: Field Experience
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. *Prerequisite:* DANC 223 *and Co-requisite:* DANC 323. (1 credit)

DANC 399: Repertory
This course provides students with an in-depth experience in an aspect of dance, i.e., repertory, rehearsal and performance, or pointe work. Course may be repeated for a total of 4 credits. *Prerequisite:* Permission of instructor. (1 credit)

DANC 400: Dance Composition III
This third-level of dance composition will allow the student to work with a faculty member on a one-to-one basis, and choreograph full length dances (solo and group). *Prerequisite:* Permission of instructor. (3 credits)

DANC 419: Dance History II: Twentieth Century
This course examines dance in the 20th century, including ballet, jazz, modern and world dance genres. The aesthetics and philosophies of leading dance artists will be explored. (3 credits)

DANC 420: Modern Dance IV
This fourth level of modern dance is for the student who demonstrates a strong technical foundation, and accurately performs dance movements and combinations consistently. Course may be repeated for a maximum of 6 credits. *Prerequisite:* Permission of instructor. (2 credits)

DANC 421: Ballet IV
In this advanced course, the student will review 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. *Prerequisite:* Permission of instructor. (2 credits)

DANC 422: Jazz IV
This fourth level technique 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 at a pre-professional level. Course may be repeated for a total of 4 credits. *Prerequisite:* Permission of instructor. (2 credits)

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. *Prerequisite:* All dance major core courses, demonstrated technical proficiency and senior standing. *Prerequisites:* DANC 100, 101, 199, 200, 216, 223, 224, 300, 318, 323, 324, 326, 350, 419, 420, 498, Level III proficiency in Ballet and Jazz. (3 credits)

DANC 426: Modern Dance V
This fifth level modern dance course is for students who can demonstrate total integration of technique and performance, including a sensitivity to aesthetic 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. *Prerequisite:* Permission of instructor. (2 credits)

DANC 427: Ballet V
This advanced-level course is designed to augment a modern dancer's performance skills through ballet technique. Emphasis will be on new movements, their terminology, and practice of the techniques. Artistic development and movement execution will receive extensive attention, as well as refinement of line and style. Course may be repeated for a maximum of 6 credits. *Prerequisite:* Permission of instructor. (2 credits)

DANC 428: Modern Dance 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 demonstrate 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. *Prerequisite:* Permission of instructor. (2 credits)

DANC 429: Ballet VI
This course focuses on a pre-professional level of advanced ballet technique. Emphasis is placed on refinement of technique, performance quality, and preparation for professional dance. Course may be repeated for a maximum of 6 credits *Prerequisite:* Permission of instructor. (2 credits)

DANC 498: Selected Topics: World Dance
This course is an in-depth examination of a world dance genre, including but not limited to: Butoh, Classical Indian Dance, African Dance, Hula, Flamenco, Hip-hop or *Prerequisite:* Permission of instructor. (2 credits).

ECONOMICS COURSES

ECON 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. (3 credits)

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. (3 credits)

ECON 202: Principles of Microeconomics

Economics of the firm; resource allocation; price and output determination; market structure; current economic problems; international economics. (3 credits)

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. (3 credits)

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. (3 credits)

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:* ECON 201 and 202. (3 credits)

ECON 302: Microeconomic Analysis

Intermediate price theory including theories of demand, supply, production, resource allocation, market structure, general equilibrium and risk analysis. *Prerequisites:* ECON 201 and 202. (3 credits)

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. *Prerequisite:* ECON 201. (3 credits)

ECON 306: Comparative Economic Systems

Analysis of resource allocation within capitalist, socialist, communist and fascist systems. *Prerequisites:* ECON 201 and 202. (3 credits)

ECON 307: Urban Economics

Analysis of the economic functions and problems of modern urban areas including theoretical and practical proposed solutions. *Prerequisites:* ECON/FIN 201 and 202 (3 credits)

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. *Prerequisite:* ECON 202. (3 credits)

ECON 315: Environmental Economics

Economic causes and effects of pollution. Evaluation of costs, benefits and risks of alternative solutions to the problem of damage and destruction of the environment. *Prerequisite:* ECON 202. (3 credits)

ECON 316: Evolution of Economic Thought

This course provides a look at economics from an historical perspective. Original works of many early economists will be examined. Ideal for anyone interested in how our economic system has developed. *Prerequisite:* ECON 201. (3 credits)

ECON 317: Managerial Economics

Covers the application of microeconomics to managerial decision making. Major topics include: Demand estimation, cost minimization, pricing, and production decisions, and planning under conditions of risk and uncertainty. *Prerequisites:* ECON/FIN 201 and MATH 120 or above. (3 credts)

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:* ECON 219 or MGMT 219, or permission of the instructor. (3 credits)

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. *Prerequisite:* ECON 202. (3 credits)

ECON 402: Public Finance

Nature, incidence and economic effects of taxation; government spending; public debt management; fiscal administration. *Prerequisites:* ECON 201 and 202. (3 credits)

ECON 405: Industrial Organization

Examines the reasons for different market structures and how the structure influences the strategies of firms and their profits. Particular attention is paid to the role of advertising and product differentiation in a firm's attempt to create or sustain economic profits. The course stresses the conditions in which government regulation of an industry is warranted plus highlights obstacles to effective regulations. *Prerequisite:* ECON 202. (3 credits)

ECON 407: International Economics

Alternative exchange rate systems, commercial trade policies, balance of payments, adjustment mechanisms and the role of international financial organizations. *Prerequisites:* ECON 201 and 202. (3 credits)

ECON 408: Development Economics
Study of the growth process including institutional problems, political, cultural and technological problems, development theories, planning and programming. *Prerequisites:* ECON 201 and 202. (3 credits)

ECON 412: Economics Seminar
Application of advanced economic theory for problem solving and research. Topic selection will vary with instructor. *Prerequisites:* ECON 301, 302, or permission of the instructor. (3 credits)

ECON 415: Trade Flow Analysis
Brings to bear the principles of comparative advantage, the factors proportions theorem, and the regional theory of world trades on the analysis of trade flows and economic growth. (3 credits)

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. (1-3 credits)

ELEMENTARY EDUCATION COURSES

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework. Minimum overall QPA, professional conduct standards, and major QPA 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.

ELEC 281: Cultural Awareness in the Elementary Classroom
Candidates will be introduced to the theory and practice of cultural and diversity issues for success in today's elementary classrooms. They will study the impact of culture on education and become familiar with effective strategies for culturally relevant teaching through reflective inquiry and field-based educational experiences. *Prerequisites:* Sophomore Standing; *Co-requisite:* ELEC 288. (3 credits)

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:* Sophomore Standing; *Co-requisite:* ELEC 281. (3 credits)

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:* Admission to the College of Education; ELEC 281, 288; *Co-requisites:* ELEC 342, 362. (1 Credit)

ELEC 303: Literature in Early Childhood Education
This course presents an overview of the value of children's literature in early childhood education, the range of genre appropriate for this age group, and effective strategies for providing rich literary experiences for young children which cultivate a love of books and reading. (3 credits)

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. (3 credits)

ELEC 312: 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. (3 credits)

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. *Prerequisites:* Successful completion of Junior Block in elementary education. *Co-requisites:* ELEC 332, 352, 372; Grading: P/NC. (3 credit)

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. *Prerequisite:* One year of college language study or placement in 201. (3 credits)

ELEC 325: Current Approaches to Elementary Education Foreign Language Teaching
This course will offer instructional methods appropriate to foreign language instruction in the elementary classroom. (3 credits)

ELEC 331: Emerging Literacy
This course is a methods class, which provides a framework for understanding how to facilitate the development of young children's literacy. It includes a study of language development and its relationship to literacy; developmental reading and writing process; and an understanding of home, school, and societal environments that promote literacy in preschool through primary grades. (3 credits)

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:* ELEC 301, 342, 362; *Co-requisites:* ELEC 320, 352, 372. (3 credits)

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. *Prerequisite:* MATH 210 or equivalent. *Co-requisites:* ELEC 301, 362. (3 credits)

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:* ELEC 301, 342, 362; *Co-requisites:* ELEC 320, 332, 372. (3 credits)

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 in an important component of this course. *Prerequisites:* Two science courses, one with related laboratory. *Co-requisites:* ELEC 301, 342. (3 credits)

ELEC 371: 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. *Prerequisite:* ELEC 396 (3 credits)

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:* ELEC 301, 342, 362; *Co-requisites:* ELEC 320, 332, 352. (3 credits)

ELEC 382: Methods and Materials for Diagnostic and Remedial Reading

Study of recent research in the field of reading to acquaint students with problems and needs common to incompetent readers and with the most successful materials and techniques for dealing with such problems. Demonstrations and practice in testing, planning, and directing remedial reading programs with groups and individual students. *Prerequisite:* ELEC 332. (3 credits)

ELEC 385: Creativity in Elementary School

An interdisciplinary approach to child-centered teaching through creative instructional materials, drama, music, and a variety of art media. (1-3 credits)

ELEC 390: Experimental Course

This course varies with program.

ELEC 394: Discipline and Classroom Management in the Elementary School

A course emphasizing preventive, interventive, and diagnostic techniques for effective management and control in a classroom. Consideration is also given to classroom atmosphere, parent-teacher conferences, roles of support personnel, etc. (3 credits)

ELEC 396: 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. (3 credits)

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. *Prerequisite:* ELEC 396. (3 credits)

ELEC 398: Modern Primary Programs

A survey of philosophy, techniques and methodology used in educating children through continuous progress in an ungraded primary school. (3 credits)

ELEC 399: 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. *Prerequisite:* ELEC 396 (3 credits)

ELEC 424: Practicum in Early Childhood

This field-based course provides students with the opportunity to study and practice teaching in a preschool setting. As an early field experience, students are not expected to demonstrate the same competence as a student teacher. *Prerequisites:* ELEC 303 or 331 and 396. (1 credit)

ELEC 455: Student Teaching – Elementary 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. (12, 6, or 3 credits)

ELEC 456: Student Teaching – Early Child

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. (12, 6, or 3 credits)

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. (1-3 credits)

ELEC 497: 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:* ELEC 396 and either ELEC 332 or ELEC 331. (3 credits)

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. (1-3 credits)

ENGLISH COURSES

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 may only enroll after completing the placement process and/or by approval of English department chair. 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. (3 credits)

ENGL 101: College Writing I

In this course, students will investigate the purposes, both academic and non-academic, for writing and reading. Students 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. (3 credits)

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. *Prerequisite:* ENGL 101. (3 credits)

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. (1 credit)

ENGL 204: Composition and Rhetoric

Expository and persuasive writing based on the study and application of rhetorical theory. *Prerequisite:* ENGL 101. (3 credits)

ENGL 205: Technical and Scientific Writing

Work in research and organizing professional papers and reports. *Prerequisite:* ENGL 101. (3 credits)

ENGL 210: Interpreting Literature

Students read and interpret a variety of texts from any time period or geographical location. Genres may include poetry, short story, novella, novel, drama, and non-fiction. (3 credits)

ENGL 214: Film Analysis

A survey of contemporary and classic films. (3 credits)

ENGL 218, 219: Elementary College Latin

An introductory study of basic Latin. One semester may be taken for credit without the other. (3 credits each course)

ENGL 220: Writing About Literature

Writing as the practical application of literary interpretation and research, using recent computer technology. *Prerequisites:* ENGL 101 and 103. (3 credits)

ENGL 240: 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. *Prerequisite:* ENGL 101. (3 credits)

ENGL 242: Afro-American Literature

A study of black American literature as it pertains to the American experience. *Prerequisite:* ENGL 101 and 210 or English Major status. (3 credits)

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. (3 credits)

ENGL 244: Native American Literature

A study of Native American Literature as it pertains to the American experience. *Prerequisite:* ENGL 101 and 210 or English Major status. (3 credits)

ENGL 246: Latino Literature of the U.S.

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. *Prerequisite:* English 101and 210 or English Major status. (3 credits)

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. *Prerequisite:* ENGL 101and 210 or English Major status. (3 credits)

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. *Prerequisite:* ENGL 101and 210 or English Major status. (3 credits)

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. *Prerequisite:* ENGL 101. (3 credits)

ENGL 306: Advanced Technical and Scientific Writing
Advanced work in research and organizing professional papers and reports. *Prerequisite:* ENGL 205. (3 credits)

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. *Prerequisite:* ENGL 101. (3 credits)

ENGL 308: Advertising Copywriting
Work in the writing and production of advertising copy. *Prerequisite:* ENGL 101. (3 credits)

ENGL 309: Business and Administrative Writing
Principles and practices of good writing as found in business letters and report writing. *Prerequisite:* ENGL 101. (3 credits)

ENGL 310: Auto/Biographical Writing
Biographical writing will acquaint students with historical, theoretical and practical problems involved in writing biography or autobiography. Students will write a paper on a theoretical aspect of biography and prepare a biographical or autobiographical project. *Prerequisite:* ENGL 103; some background in oral history would be useful. (3 credits)

ENGL 311: Chaucer
Selections from The Canterbury Tales, Troilus and Criseyde, and other works of Geoffrey Chaucer. *Prerequisite:* ENGL 101 and 210 or English Major status. (3 credits)

ENGL 312: Shakespeare
Selected comedies, tragedies and histories with their literary and historical background. *Prerequisite:* ENGL 101 and 210 or English Major status. (3 credits)

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. *Prerequisite:* ENGL 101. (3 credits)

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. Prerequsite: ENG. 210 or Declared English Major. (3 credits)

ENGL 317: British Literature I
A comprehensive study of authors and literary works from the Old English period through Milton. *Prerequisite:* ENGL 101. (3 credits)

ENGL 318: British Literature II
A comprehensive survey of authors and literary works from the Civil War and Restoration through the early 20th century. *Prerequisite:* ENGL 101. (3 credits)

ENGL 319: American Literature I
A comprehensive survey of American literature from Puritan times through Melville. *Prerequisite:* ENGL 101and 210 or English Major status. (3 credits)

ENGL 320: American Literature II
A comprehensive survey of American literature from Whitman through modern times. *Prerequisite:* ENGL 101and 210 or English Major status. (3 credits)

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. *Prerequisite:* ENGL 101. (3 credits)

ENGL 332: Traditional Grammar
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. *Prerequisite:* ENGL 101. (3 credits)

ENGL 333: Concepts in Linguistics
An examination of language structure: phonology, morphology, syntax and semantics, and an introduction to psycho, socio, and historical linguistics. *Prerequisite:* ENGL 101. (3 credits)

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. *Prerequisite:* ENGL 101. (3 credits)

ENGL 383: 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. (3 credits)

ENGL 384: 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. (3 credits)

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. *Prerequisite:* ENGL 101and 210 or English Major status. (3 credits)

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. (1-3 credits)

ENGL 402: World Literature
Critical analysis of selected works by writers outside the U.S. and Britain. *Prerequisite:* ENGL 101, 103 and 210 or English Major status. (3 credits)

ENGL 403: Literary Criticism
Selected criticisms from Plato to Frye, with application of critical approaches and principles to works of several genres. *Prerequisite:* ENGL 101, 103, and 210 or English Major status. (3 credits)

ENGL 409: Advanced Research Writing
Course will instruct majors in the B.S. in Writing Program (Option A) in the goals, audiences, sources, methods, and processes requisite for research and professionalization as writers. (3 credits)

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. *Prerequisite:* ENGL 101 and 210 or English Major status. (3 credits)

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. *Prerequisite:* At least two sequential courses in the writing sequence and approval of advisor. (3-6 credits)

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:* ENGL 101, 103 and 210 or English Major status. (3 credits)

ENGL 490: Independent Study

A program of supervised independent study. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits per semester)

ENGL 491: Independent Writing

Creative or expository writing projects. *Prerequisite:* Dean's approval. (1-3 credits per semester)

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. (1-3 credits)

ESL 101,102,103: English as a Second Language

A broad and practical working knowledge of the English language for non-native speakers. Courses will prepare the non-native speaker for college coursework in English. Language laboratory attendance required. Students will be placed at the appropriate level based on standardized examination. Cross-listed as MODL 101, 102, 103. (3 credits each)

ENVIRONMENTAL GEOSCIENCES COURSES

EGEO 100: Environmental Geology

Problems of mineral, energy and water resources, waste disposal, soils and health, geologic hazards, and land use. (3 credits)

EGEO 101: Physical Geology

Emphasis is placed upon those processes acting to create earth materials, landforms, and structures in and on the earth. (3 credits)

EGEO 102: Historical Geology

The evolutionary history of the earth and its life. Two Saturday field trips required. *Prerequisites:* Geology 101, 111 and concurrent registration in EGEO 112. (3 credits)

EGEO 103/303: 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. *Prerequisites:* Concurrent registration in EGEO 304 is required for EGEO 303. (3 credits)

EGEO 110: Environmental Geology Lab

Complement of EGEO 100; laboratory study of geologic hazards and geologic resources, including resource depletion and waste disposal issues. Course requires a weekend field trip to pertinent regional destinations. *Prerequisite:* EGEO 100 must be taken prior to or concurrently. (1 credit)

EGEO 111: Physical Geology Lab

Complement to EGEO 101; laboratory studies of minerals, rocks and maps illustrate the concepts of EGEO 101. *Prerequisite:* EGEO 101 must be taken prior to or concurrently. (1 credit)

EGEO 112: Historical Geology Lab

Complement to EGEO 102; introduction to fossils, interpretation of geologic maps, and principles used in historical geology. *Prerequisites:* EGEO 101, 111 and concurrent registration in EGEO 102. (1 credit)

EGEO 121: Meteorology

Introduction to principles controlling weather and their effect on man and the environment. Includes lab. (3 credits)

EGEO 131: Oceanography

Introduction to the physical, chemical and biological aspects of the marine environment. (3 credits)

EGEO 201: Earth Materials

Identification of rocks and minerals based on observation and study of physical properties. Origin, occurrence, and value of earth materials. Includes lab. (3 credits)

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. *Prerequisite:* EGEO 121. (3 credits)

EGEO 231: Aerial Photograph Interpretation

Introduction to photogrammetry, remote sensing, and interpretation of geologic and cultural imagery. *Prerequisite:* EGEO 101 or 201 or permission of the instructor. (3 credits)

EGEO 241: Geomorphology

A study of landforms, their origin and relation to geologic processes, structure, and climate. *Prerequisite:* EGEO 111. (3 credits)

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. *Prerequisite:* EGEO 111. (3 credits)

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. *Prerequisite:* EGEO 121. (3 credits)

EGEO 271: Geotechniques: Lab

Training in laboratory techniques and instruments for geological, geophysical and environmental surveys. (2 credits)

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:* EGEO 102, ENGL 103, COMM 200 (can be taken concurrent) or permission of the instructor. (1 credit)

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:* EGEO 112 and 271 or permission of the instructor. *Co-requisite:* Geology 303. (1 credit)

EGEO 327: Structural Geology
Origin and description of primary and secondary structures of sedimentary, igneous, and metamorphic rocks. *Prerequisites:* EGEO 112 and 272. (3 credits)

EGEO 340: Air Pollution Meteorology
A study of meteorological parameters of air pollution concentration, dispersion, and removal. Includes air pollution forecasting and modeling. *Prerequisite:* EGEO 121. (3 credits)

EGEO 351: Mineralogy
Systematic crystallography, crystal chemistry, physics, genesis, occurrence, and identification of minerals. *Prerequisites:* EGEO 111, 271, 272, CHEM 108, 112 and permission of the instructor. (4 credits)

EGEO 352: Petrology
Classification, occurrence, and genesis of igneous, sedimentary and metamorphic rocks. Identification using hand specimens and polarizing microscope (thin sections). *Prerequisite:* EGEO 351. (4 credits)

EGEO 360: Introduction to Hydrology
A study of the occurrence and movement of water and man's effect on this basic resource. *Prerequisites:* EGEO 101 and 201 or permission of the instructor. (3 credits)

EGEO 362: Stratigraphy
Principles of stratigraphy, stratigraphic mapping, and graphic techniques used in stratigraphic interpretation. Two Saturday field trips may be required. *Prerequisite:* Permission of the instructor. (3 credits)

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:* CHEM 107 and EGEO 201. (3 credits)

EGEO 450: Internship
Supervised placement and research in selected public and private agencies. *Prerequisite:* Permission of geology chairperson. (3-12 credits)

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:* CHEM 108, 112 and EGEO 201 or equivalent. (4 credits)

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. *Prerequisite:* EGEO 451 or permission of the instructor. (1 credit)

EGEO 460: Hydrogeology
A study of the quantitative and qualitative interrelationships of geologic materials and processes with ground water. *Prerequisite:* EGEO 360 or permission of the instructor. (3 credits)

EGEO 476: Geotechniques: Geophysics
Lab and field techniques. *Prerequisite:* Permission of the instructor. *Prerequisite:* EGEO 460 or 475. (1 credit)

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. *Prerequisite:* Senior standing or permission of the instructor. (1 credit)

EGEO 482: Senior Seminar
A seminar for advanced undergraduates in which students and staff participate in discussions concerning classical and current geological problems. *Prerequisite:* Senior standing or permission of the instructor. (1 credit)

EGEO 490: Independent Study
Independent work on a topic in the earth sciences selected by the student with permission and advice of the instructor. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

EGEO 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. (1-3 credits)

ENVIRONMENTAL SCIENCE COURSES

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. *Prerequisite:* Four courses completed in the natural sciences and mathematics area of the liberal studies program. (3 credits)

ENVS 450: Environmental Science Internship
Academic credit may be earned through a practicum experience, working for an agency or business. *Prerequisites:* A minimum of 16 credits completed in the major and approval of the agency or business, the program director, and the advisor. (3-12 credits)

ENVS 480: Environmental Systems Analysis
The student will investigate an environmental problem in conjunction with an appropriate faculty member as a research project. *Prerequisites:* A minimum of 16 credits completed in the major and the approval of the program director and the advisor. (3 credits)

EXERCISE AND REHABILITATIVE SCIENCE COURSES

ERS 100: Introduction to Exercise Science: Careers and Content
An introductory level class for exercise science majors in which the student will trace the origin of the profession and be given the opportunity to identify professional characteristics through observation and interaction with professionals in the field. The class will encompass career planning, internship opportunities, and current research that pervades the profession. (3 credits)

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. (3 credits)

ERS 161: Adapted Physical Education Activity
This course meets the needs of students with disabilities and/or other health impairments who are otherwise unable to participate in the traditional physical education activity courses. Throughout the course the students will determine individual goals and limitations related to physical performance. In a highly structured and monitored program of exercise and activity coupled with lecture materials, the students will understand physical and motor fitness parameters related to their unique situation. (1 credit)

ERS 165: Equine Facilitated Therapy
Designed to introduce the concept of therapeutic horseback riding as a treatment modality for existing impairments in the individual as an intervention technique against the continued deterioration of those existing impairments. The equine facilitated therapeutic riding program will be examined on an in-depth level in regard to structure, function, operational procedures, and management. Additional areas of focus will include the study of disabling condition, the study of intervention for people with disabilities through a riding program and the experience of the therapeutic movement of the horse. (1 credit)

ERS 217: Care and Prevention of Athletic Injuries
Studies and applies principles and techniques used in prevention, care and rehabilitation of athletic injuries. Clinical experience required. (3 credits)

ERS 235: Biomechanics for Special Populations
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. (3 credits)

ERS 261: Adapted Aquatics
Provides the student with practical experience, lectures and discussion in working with children and adults with disabilities in an aquatic setting. (1 credit)

ERS 264: Applied Anatomy
A study of the structure of the human body with particular emphasis upon the skeletal, muscular, nervous and cardiovascular systems as related to scientifically sound and practical exercise programs. (3 credits)

ERS 265: Sport and Disability
Provides practical opportunities to participate in and understand sport opportunities for individuals with disabilities. (1 credit)

ERS 273: Measurement and Statistical Application in Exercise Science
Focuses on measurement, data collection, and statistical treatment (descriptive and inferential) of health and fitness data associated with exercise science. (3 credits)

ERS 275: Introduction to Adapted Physical Activity
The acquisition of competencies to implement developmental programs for individualized instruction where an individual's progress can be measured and monitored through extending instructional objectives in physical, social, perceptual, and skill activities. The course emphasizes the inclusion of children and adults with disabilities in the educational, recreational, and physical fitness process and placement in the least restrictive environment in schools and community programs. *Prerequisite:* ERS 264. (3 credits)

ERS 277: Integrative Approach to Athletic Training
Integrate cognitive concepts into progressively higher functional and practical application. This integration is to be achieved after completion of selected athletic training classes and by direct supervision and mentoring. *Prerequisite:* Admission into athletic training program. (3 credits)

ERS 285: Adapted and Therapeutic Exercise
Provides the student with practical experience in assessment of assigned clients with disabilities, program design, and administration of exercises performed in an aquatic setting. *Prerequisite:* ERS 264 or permission of the instructor. (3 credits)

ERS 317: Therapeutic Modalities Theory
Familiarizes the athletic training student with contemporary physical modalities, appropriate physiology, indications, contraindications, and methods of application. *Prerequisites:* ERS 107, 217, and admission into athletic training program. (3 credits)

ERS 321: Care and Prevention of Injuries of the Physically Active
Studies and applies principles and techniques used in prevention, care, and rehabilitation of fitness related injuries. *Prerequisites:* AHEA 205 and ERS 264. (3 credits)

ERS 327: Therapeutic Modalities Procedures
Familiarizes the athletic training student with the appropriate application and maintenance of therapeutic modalities. To be taken concurrently with AHEA 317. *Prerequisites:* ERS 107, 217, and admission into athletic training program. (3 credits)

ERS 337: Physical Examination of the Athlete
Presents knowledge and skills for orthopedic evaluation of the spine and extremities. Includes evaluation of the internal organs as well. *Prerequisites:* ERS 264 or permission of the instructor, and admission into athletic training program. (3 credits)

ERS 347: Theory of Therapeutic Techniques in Rehabilitation
Presents treatment theories and techniques necessary in the planning and implementation of therapeutic exercise for prevention of athletic injuries and/or care of the athlete. *Prerequisite:* Admission into athletic training program. (3 credits)

ERS 351: Biomechanics
A study of analysis of human motion based on anatomic, physiologic and mechanical principles. Laboratory included. *Prerequisites:* ERS 264 and PHYS 201. (3 credits)

ERS 357: Application of Therapeutic Techniques
Enables students to develop the application of therapeutic techniques for the prevention of injury and/or care of the athlete. (To be taken concurrently with AHEA 347) *Prerequisite:* Admission into athletic training program. (3 credits)

ERS 358: Assessment Techniques in Adapted Physical Activity
Focuses on assessment and intervention for individuals with disabilities. Special emphasis will be on linking assessment to intervention and functioning as a member of an interdisciplinary team. Assessment includes testing, interpreting, prescribing, implementing, and evaluating. Included are programs for physical and motor fitness, posture, and perceptual-motor skills for people with disabilities. The course will also include discussions of exemplary programs and implications of Federal and state legislation concerning individuals with disabilities. (3 credits)

ERS 368 Achievement Based Curriculum
A review of best practices and approaches to planning, assessing, prescribing, teaching, evaluating, and modifying adapted physical activity programs through the use of a systematic achievement based model. (3 credits)

ERS 375: Exercise Physiology I
Study of the physiological bases of exercise with emphasis on the responses and adaptations of the systems of the body to a variety of exercise stimuli. Exercise physiology principles are studied by means of participation in weekly laboratory experiences. *Prerequisite:* ERS 264. (3 credits)

ERS 376: Exercise Leadership: Group Fitness
This course is designed to provide specialized instruction and opportunities for practical application in the following areas of group fitness activities: hi/lo impact, step, slide, water aerobics, resistance training, yogaerobics, funk/hip-hop, cardio kick box, interval and circuit training. Each topic will be covered in detail with respect to physiological and biomechanical principles, choreography, safety, and modifications for participation of special populations. Current trends and research in the area of group fitness instruction will be explored. *Prerequisite:* ERS 375. (3 credits)

ERS 377: Exercise Leadership: Strength Fitness
Designed to provide both the theoretical and practical knowledge to effectively design, organize and conduct strength fitness programs. Specific emphasis will be placed on the physiological/kinesiological principles, training guidelines and safety procedures in developing and administering programs for general strength fitness, competitive weightlifting and bodybuilding. *Prerequisite:* ERS 375 (3 credits)

ERS 384: Motor Control and Learning
Highlights selected motor learning theorists, basic principles surrounding sensory and motor systems, motor control, and other conditions influencing motor skills acquisition in physical education and athletics. Practical laboratory experiments will be utilized to illustrate basic concepts of skill learning and performance. (3 credits)

ERS 387: Practicum in Athletic Training
Provides educational experiences/assessments in the area of athletic training psychomotor domain, to be coordinated/supervised/mentored in a varied athletic training practicum (totaling a minimum of 1,000 hours). Students will establish/maintain portfolios, develop proper medical documentation and record keeping skills, and be provided opportunities for orthopedic surgery observation. *Prerequisite:* Admission into athletic training program. (3 credits)

ERS 407: Advanced Studies in Current Strategies in Athletic Training
Surveys topics relevant to athletic training, depending on availability of health management experts. *Prerequisites:* Must have senior status in the athletic training program and have completed all other athletic training coursework. (3 credits)
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. *Prerequisite:* Completion of 9 credits of ERS 387.

ERS 450: Exercise Science Internship
This course is designed to provide students an opportunity to apply Exercise Science career-oriented skills in a supervised work experience in a university approved fitness, wellness or rehabilitative agency. *Prerequisite:* completion of internship application process and valid CPR certification. (12 credits)

ERS 465: Adapted Physical Activity in Public Schools
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. *Prerequisite:* ERS 365 or permission of the instructor. (3 credits)

ERS 466: Professional Affiliation in Adapted Physical Activity
Designed to actively involve the learner in an advanced study of adapted 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 motor programs. *Prerequisite:* ERS 275 or permission of the instructor. (3 credits)

ERS 474: Physical Fitness Assessment and Instrumentation
Provides the theoretical and practical basis to select and utilize properly the instrumentation and techniques for physical fitness assessment. *Prerequisites:* ERS 273 and 375. (3 credits)

ERS 475: Exercise Physiology II
This is a laboratory-based course that focuses on cardiovascular and respiratory responses and adaptations to a variety of exercise stimuli in both healthy individuals and those with various cardiopulmonary diseases. Special emphasis will be placed upon electrocardiogram monitoring and interpretation, graded exercise testing, and the influence of various environmental factors upon cardiac and pulmonary function. *Prerequisite:* ERS 375, BIOL 216 or permission of instructor. (3 credits)

ERS 476: Physiological Aspects of Aging and Human Performance
A study of the physiological aspects of the aging process with emphasis on the effects of physical activity on health in the later years of life and on the degenerative process of aging. The course will stress the physiological responses to aging that are influenced by exercise and the physiological rationale for lifelong physical activity. (3 credits)

ERS 484: Exercise Prescription
This course provides the theoretical knowledge base to design safe and effective personalized exercise programs for various populations. Emphasis is placed upon prescribing individualized cardiovascular, musculoskeletal and weight control programs for the apparently healthy, the chronically diseased, the elderly, children and pregnant females. *Prerequisite:* ERS 474. (3 credits)

ERS 493: Exercise Science: Senior Synthesis
Designed to provide students with experiences which allow them to apply their knowledge and skills in a practical worksite situation. *Prerequisite:* ERS 474 (3 credits)

ERS 561: Worksite Wellness Promotion
This course is designed to provide current information in the area of wellness and health promotion in various workplace settings. An overview of various concepts and issues relating to worksite wellness programs will be discussed. Guidelines for planning, implementing, and evaluating successful programs will be analyzed. (3 credits)

FINANCE COURSES

FIN 100: Personal Finance Planning
Practical money management including information about careers, how to get a job, budgeting, credit, investments, insurance, housing, taxes, and other consumer matters. (3 credits)

FIN 211: Real Estate Fundamentals
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. (3 credits)

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. *Prerequisite:* ECON 201. (3 credits)

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:* ECON 219 or MGMT 219, or permission of the instructor. (3 credits)

FIN 320: Managerial Finance
Capital budgeting, cost of capital, management of short and long term assets, mergers and financial reorganization. *Prerequisite:* ACCT 210, Advanced business standing. (3 credits)

FIN 321: Investments
Introduction to security markets and their operation; investment alternatives; fundamentals of investment analysis. *Prerequisite:* FIN320 or permission of the instructor. (3 credits)

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. *Prerequisite:* FIN 320 or permission of the instructor. (3 credits)

FIN 323: Financial Markets and Institutions
Introduction to financial markets and institutions and to their role in financing business, consumers and government. *Prerequisite:* FIN 320 or permission of the instructor. (3 credits)

FIN 327: Management of Working Capital
In-depth analysis of financial management of business firms with special emphasis on the management of working capital. *Prerequisite:* FIN 320. (3 credits)

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. *Prerequisite:* FIN 320. (3 credits)

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. *Prerequisite:* FIN 320. (3 credits)

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. *Prerequisite:* FIN 320. (3 credits)

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:* FIN 321, FIN 329, ACCT 240, ACCT 308 or permission of the instructor (3 credits)

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:* FIN 321, FIN 329, FIN 409, ACCT 240, ACCT 308, or permission of the instructor. (3 credits)

FIN 420: Finance Seminar
Capital budgeting, cost of capital, capital structure, working capital management and long-term financing. *Prerequisite:* FIN 320 or permission of the instructor. (3 credits)

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. *Prerequisite:* FIN 321. (3 credits)

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. *Prerequisite:* FIN 320. (3 credits)

FIN 430: International Banking
Internationalization of U.S. and foreign banks to meet the global financial needs of multi-national activities. *Prerequisites:* FIN 320, FIN 323 is recommended. (3 credits)

FIN 450: Internship
Supervised placement and research in selected public and private agencies at appropriate institutions. *Prerequisites:* Application and permission of the instructor. (3-12 credits)

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. *Prerequisites:* 12 credits of major courses, application, permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

FRENCH COURSES

FREN 101,102,103: French Language and Culture I, II, III
A broad and practical working foundation in the language. *Prerequisites:* FREN101 or the equivalent for FREN 102; FREN 102 or the equivalent for FREN 103. (3 credits each)

FREN 201: Communicating in French
A functional course in speaking and writing French, stressing everyday vocabulary and structure. *Prerequisite:* FREN 103 or the equivalent. (3 credits)

FREN 210: French Literature in Translation
A study of representative French literary works, emphasizing the persons and ideas which have influenced French and foreign literatures. The course will be given in English; no knowledge of French required. For non-French majors. (3 credits)

FREN 220: Reading in French
An introduction to reading in French at the intermediate level. *Prerequisite:* FREN 103 or equivalent. (3 credits)

FREN 300: French Grammar Review
An intermediate grammar review course emphasizing the basic structure of French. *Prerequisite:* FREN 201 or 220 or the equivalent. (3 credits)

FREN 301: Developing French Vocabulary & Conversation Skills
Development of French vocabulary and conversation skills through intensive study of selected theme areas. *Prerequisite:* French 201/220 or permission of the instructor. (3 credits)

FREN 303: Business French
An introduction to basic French language usage in commerce and commercial correspondence. *Prerequisite:* FREN 201 or 220 or the equivalent. (3 credits)

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. *Prerequisite:* FREN 201 or 220 or the equivalent. (3 credits)

FREN 306: Modern France
A study of contemporary French life and attitudes today. *Prerequisite:* FREN 201 or 220 or the equivalent for French majors. (3 credits)

FREN 320: Main Currents in French Literature
An introduction to the study of French literature through prose, drama and poetry. *Prerequisite:* FREN 201 or 220 or the equivalent. (3 credits)

FREN 335: Women in French Literature
A study of French women authors and of French women as literary characters in French literature. *Prerequisite:* FREN 201 or 220 or the equivalent. (3 credits)

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. *Prerequisite:* Six credits at the 200 or above level. (3 credits)

FREN 395: Workshop
Special topics of interest to undergraduates and selected community members.

FREN 400: Advanced French Grammar
An advanced course in the study of French grammar and usage. *Prerequisite:* FREN 300. (3 credits)

FREN 401: Advanced Oral Communication Skills
This course will provide the opportunity for advanced students to improve their aural comprehension and their conversation abilities in French. *Prerequisites:* Six credits of French at the 300-level. (3 credits)

FREN 402: Eighteenth-Century Novel
A study of the Age of Enlightenment as reflected in the novel. *Prerequisite:* Six credits of French at the 300 level. (3 credits)

FREN 403: Nineteenth-Century French Literature
Readings from the romantic, realistic and naturalistic movements. *Prerequisite:* Six credits of French at the 300 level. (3 credits.)

FREN 404: Modern French Literature
A study of various aspects of modern French literature. *Prerequisite:* Six credits of French at the 300 level. (3 credits)

FREN 411: Literature of the Classical Period
A study of French Classicism, emphasizing the plays of Corneille, Moliere and Racine. *Prerequisite:* Six credits of French at the 300 level. (3 credits)

FREN 490: Independent Study
Students have an opportunity to study selected areas in greater concentration. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

GEOGRAPHY AND ENVIRONMENTAL STUDIES COURSES

G&ES 100: Discover Geography
An introductory course that surveys the field of geography and demonstrates the relevance of basic geographic concepts and methodologies. (3 credits)

G&ES 105: World Regional Geography
This course will provide an introduction to the regional concept, classification of major culture regions throughout the world and a description of the physio-cultural character of those regions. A major emphasis of this course is learning where places are in a regional context. (3 credits)

G&ES 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. (3 credits)

G&ES 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. (3 credits)

G&ES 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. (1 credit)

G&ES 135: Introduction to Environmental Problems
An introduction to some of the more crucial environmental problems and alternative solutions that are available. (3 credits)

G&ES 150: The Natural Environment
An introduction to interrelationships among the physical elements of the environment, including the study of weather, climates, vegetation, soils and landforms. (3 credits)

G&ES 201: Latin America and the Caribbean
Consideration is given to physical, historical, cultural, political, and economic patterns in Latin America and the Caribbean. (3 credits)

G&ES 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, with an emphasis on maps, regions, and images. (3 credits)

G&ES 204: Post-Soviet Union
Study of the Soviet Union and Soviet-bloc nations with emphasis on economic, physical, political, and cultural aspects. (3 credits)

G&ES/PUBA 215: Rural and Urban Planning
An introduction to social and physical planning for rural areas, towns and cities. Cross-listed with Public Administration. (3 credits)

G&ES 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. *Prerequisite:* G&ES 115 (3 credits)

G&ES 230: Cultural Geography
Deals with spatial aspects of cultural phenomena. The course focuses on the origin, diffusion, and geographic organization of cultural groups and regions. (3 credits)

G&ES 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. *Prerequisite:* G&ES 135 or permission of the instructor. (3 credits)

G&ES 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. (3 credits)

G&ES 244: Environmental Justice
An examination of basic factors underlying the spatial allocation and development of resources. (3 credits)

G&ES 245: Population and Resources
Basic demographic principles and their relationship to regional development. (3 credits)

G&ES 255: General Climatology
The systematic analysis of the earth's climates, including their description, classification, and location. *Prerequisite:* G&ES 150 or permission of the instructor. (3 credits)

G&ES 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. (3 credits)

G&ES 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. (3 credits)

G&ES 303: Asia
A survey of the major regions of Asia emphasizing their physical, cultural, and political characteristics. Several countries are selected for special emphasis. (3 credits)

G&ES 308: Europe
The evolution of nations, the cultural landscape, and the spatial-economic organization of Europe. (3 credits)

G&ES 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. (3 credits)

G&ES 310: Urban Geography
The course is designed to provide insights into the nature of cities and smaller urban places. (3 credits)

G&ES 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. *Prerequisite:* G&ES 115. (3 credits)

G&ES/POLS 324: Environmental Law and Policy
The study of political control of the environment. Focus on the roles played by individuals and groups. (3 credits)

G&ES 325: Introduction to Geographic Information Systems
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. *Prerequisite:* G&ES 115. *Prerequisites:* CPSC 110 or CPSC 130. (3 credits)

G&ES 330: Political Geography
The effects of politics on geography and the effects of geographic factors on politics. (3 credits)

G&ES 331: Economic Geography
Examines human use and economic organization of the earth. (3 credits)

G&ES 345: Population Analysis
A study of the techniques of population analysis with respect to growth, distribution, fertility, migration, and other demographic characteristics. *Prerequisite:* Some background in algebra or statistics. (3 credits)

G&ES 375: Geography of Intolerance
Analyzes cross-culturally the impact on resource allocation and the spatial implications of gender, racial, religions, political and class discrimination. (3 credits)

G&ES 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. (3 credits)

G&ES 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. *Prerequisite:* G&ES 315 or permission of the instructor. (3 credits)

G&ES 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. (3 credits)

G&ES 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:* G&ES 315, 325. (3 credits)

G&ES 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. (3 credits)

G&ES 444: Philosophy of Geography
Acquaints the student with traditional and current geographic literature and traces the development of geographic methodology in the United States during the twentieth century. *Prerequisite:* Junior standing and/or permission of the instructor. (3 credits)

G&ES/PUBA 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. *Prerequisite:* G&ES/PUBA 215. (3 credits)

G&ES 450: Internship
Supervised placement and field experience in a selected public or private agency. *Prerequisite:* Permission of the instructor. (Credits vary)

G&ES 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. *Prerequisite:* Permission of the instructor. (3 credits)

G&ES 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. (1-3 credits)

GERMAN COURSES

GERM 101,102,103: German Language and Culture I, II, III
A broad and practical working foundation in the language. *Prerequisite:* GERM 101 or the equivalent for GERM 102; and GERM 102 or the equivalent for GERM 103. (3 credits)

GERM 201: Communication in German
A functional course in speaking and writing German, stressing everyday vocabulary and structure. *Prerequisite:* GERM 103 or the equivalent. (3 credits)

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-German majors. (3 credits)

GERM 220: Reading in German
An introduction reading in German at the intermediate level. *Prerequisite:* GERM 103 or equivalent. (3 credits)

GERM 300: German Grammar Review
An intermediate grammar review course, emphasizing the basic structure of German. *Prerequisite:* GERM 201 or 220 or the equivalent. (3 credits)

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. *Prerequisite:*

GERM 201 or 220 or the equivalent. (3 credits)

GERM 305: German Civilization
A study of the development of German civilization from its earliest beginnings to its modern times. *Prerequisite:* GERM 201 or 220 or the equivalent. Course is for majors and non-majors. (3 credits)

GERM 306: Modern German Civilization
A study of the civilization of German-speaking areas in the twentieth century. *Prerequisite:* GERM 201 or 220 or the equivalent. (3 credits)

GERONTOLOGY COURSES

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. (3 credits)

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. (3 credits)

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:* Nine credits of approved gerontology coursework or permission of the gerontology coordinator. (3-12 credits)

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. *Prerequisite:* GERO 265 or equivalent work experience; additional coursework in gerontology is desirable. (3 credits)

GERO 490: Independent Study
A rigorous investigation of a topic of relevance to gerontology not covered in detail in existing courses. *Prerequisite:* Permission of gerontology coordinator, instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

HISTORY COURSES

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. (3 credits)

HIST 152: Rise of the Modern World
European peoples and nations from the Renaissance and Reformation to the French Revolution and the Napoleonic Wars. (3 credits)

HIST 153: Twentieth Century World
Contemporary history in the perspective of World War I and II, the Great Depression and the challenge of totalitarianism to democracy; Lenin vs. Wilson; Mussolini, Franco, Hitler and Tojo vs. Churchill and Roosevelt; Stalin and Mao Tse-tung. (3 credits)

HIST 201: Colonial America to 1825
The colonies, the American Revolution, the new nation and Jeffersonian democracy to the Jacksonian period, including some study of ethnic groups. (3 credits)

HIST 202: United States, 1825-1900
Jacksonian era to world power, including sectionalism, manifest destiny, Civil War and Reconstruction and problems of industrialization. (3 credits)

HIST 203: U.S. History Since 1900
Social, economic and political history of the 20th century, including World War I, and the twenties, the New Deal, World War II, postwar problems and the African American's struggle for acceptance. (3 credits)

HIST 205: Historical Methods
The course will introduce students to the skills associated with historical research and writing by means of word processing. In addition, various schools of historical thought will be analyzed. *Co-requisite:* enrollment in one upper division history course. (3 credits)

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. (3 credits)

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. (3 credits)

HIST 237: 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. (3 credits)

HIST 240: 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. (3 credits)

HIST 286: Modern Japan
This course will investigate the history of the Japanese people from the beginning of the nineteenth century to the present and explore Japan's increasingly important role in the modern world. (3 credits)

HIST 305: Russia to 1855
A social, political and cultural history from ancient times to the death of Nicholas I. (3 credits)

HIST 306: Russia Since 1855
Continuity and change in Russia from the reign of Alexander II through the Soviet period. (3 credits)

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. (3 credits)

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. (3 credits)

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 Naziism, World War II and the division into East and West Germany. (3 credits)

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. (3 credits)

HIST 332: England Since 1689
The rise to world dominion through sea power to the rivalry with Germany. (3 credits)

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. (3 credits)

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. (3 credits) Cross-listed as POLS 340.

HIST 344: The American City
Growth, impact and significance of the city and town in American history. A study of ethnology, religion, and education as factors in urban development with emphasis on industrialization as it transformed society and thought. (3 credits)

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. (3 credits)

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. (3 credits)

HIST 352: Latin America Since 1830
Developing countries of Latin America, their internal problems, international relations and historic evolution to the present. (3 credits)

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. (3 credits)

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. (3 credits)

HIST 362: Africa North of the Zambezi
Language groups, migrations of peoples, external influences, colonialism, and the emergence of independent states. (3 credits)

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. (3 credits)

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. (3 credits)

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. (3 credits)

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. (3 credits)

HIST 381: East Asian Military Traditions
This course will examine the cultural and historic factors which have distinguished Asian military traditions from the time of Sun Tze's The Art of War in the fifth century B.C. through the nineteenth and twentieth century writings of such Asian militarists as Yamagata Aritomo, Mao Tse-Tung, and Vo Nguyen Giap. (3 credits)

HIST 382: Modern Asian Pacific Rim
This course will examine the political, social, economic, technological, and cultural factors which have affected the evolution of the Pacific Rim into the most vital and growing economic region on the globe. (3 credits)

HIST 386: Modern China
This course will examine the history of modern China, the major factors, which influenced its course, and the values, which operate in Chinese society today. (3 credits)

HIST 422: Greece and Rome
The major events in the evolution of classical civilization. (3 credits)

HIST 424: The Middle Ages
Major political, social, economic, and intellectual events in the feudal era of Western Europe. (3 credits)

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. (3 credits)

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. (3 credits)

HIST 435: Pennsylvania
The founding and growth of Pennsylvania to the present. (3 credits)

HIST 437: Westward Movement
The westward movement in continental United States from discovery to 1890. Special emphasis on the trans-Mississippi West. (3 credits)

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. *Prerequisite:* 3 credits in women's studies or permission of the instructor. (3 credits)

HIST 445: Environmental Thought in the United States
American philosophical foundations of environmental thought in American history with emphasis upon changing attitudes and evaluations of successes and failures. (3 credits)

HIST 450: History Internship
Supervised placement and research in selected public and private agencies at appropriate institutions. (credits vary)

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. (3 credits)

HIST 452: U.S. Foreign Relations Since 1890
American foreign policy from the Spanish-American War to the present. (3 credits)

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. (3 credits)

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. (3 credits)

HIST 462: The Contemporary Middle East
The economic, social, cultural, and political aspects of the Middle East in the perspective of the past. (3 credits)

HIST 490: Independent Study
For history majors or advanced students with a background in history. *Prerequisites:* QPA of 2.750 in history and permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

HONORS COURSES

HONR 385, 386, 387, 388: The Great Books
Seminars on selected topics from the classic works of human thought. (3 credits)

INTERDISCIPLINARY COURSES

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. (1 credit)

NS&M 101: Introduction to the Natural Sciences and Mathematics
A course designed to introduce the student to scientific practices at the University level. Emphasis will be on developing an appreciation for the unity of the different fields of science, learning methods common to all scientific disciplines, and acquiring learning skills and strategies that may be transferred to other studies. (1 credit)

NS&M 303: Scientific Principles Applied to Human Phenomena
The disciplines of nuclear medicine, genetics, immunology, nutrition and medical physics are encountered through utilization of a lecture-discussion format. *Prerequisites:* CHEM 103, BIOL 216 and 210. (3 credits)

INTERNATIONAL BUSINESS COURSES

INBS 227: Introduction to International Business
An overview of the basic issues that firms often encounter while conducting business in a global environment. Such issues are in the areas of international trade and finance; diversified legal, political and cultural environments; international management and marketing; international accounting and taxation; and international human resource management. (3 credits)

INBS 326: International Economics
Alternative exchange rate systems, commercial trade policies, balance of payments, adjustment mechanisms and the role of international financial organizations. *Prerequisites:* ECON 201 and 202. (3 credits)

INBS 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. *Prerequisite:* FIN 320. (3 credit)

ITALIAN COURSES

ITAL 101, 102, 103: Italian Language and Culture I, II, III
A broad and practical working foundation in the language. *Prerequisite:* ITAL101 or equivalent for ITAL 102; ITAL 102 or equivalent for ITAL103. (3 credits each)

ITAL 202: Intermediate Italian I
Comprehensive review of Italian grammar with emphasis on developing the students' abilities for proficient oral and written accomplishments. *Prerequisite:* ITAL103 or equivalent. (3 credits)

ITAL 210: Italian Literature in Translation
A study of the main currents of Italian literature from the Renaissance to modern times, with emphasis on the contemporary. The course will be given entirely in English; no knowledge of Italian required. For non-Italian majors. (3 credits)

ITAL 490: Independent Study
Students have an opportunity to study selected areas in greater concentration. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

JAPANESE COURSES

JAPN 101, 102, 103: Japanese Language and Culture I, II, III
This course will provide an introduction to the Japanese language. *Prerequisite:* JAPN 101 or equivalent for JAPN 102; JAPN 102 or equivalent for JAPN 103. (3 credits each)

JAPN 202: Intermediate Japanese I
Prerequisite: JAPN 103 or equivalent. (3 credits)

KOREAN COURSES

KOR 101, 102, 103: Korean Language and Culture I, II, III
A broad and practical working foundation in the language. *Prerequisite:* KOR 101 or equivalent for KOR 102; KOR 102 or equivalent for KOR 103. (3 credits each)

KOR 202: Intermediate Korean I
Comprehensive review of Korean grammar with emphasis on developing the students' abilities for proficient oral and written accomplishments. *Prerequisite:* KOR 103 or equivalent. (3 credits)

KOR 306: Modern Korean Civilization
Course analyzes the most significant characteristics, foreign influences, and cultural traditions that have comprised Korean culture from its origins to 1900. Course will be taught in English and is open to all interested students. (3 credits)

MANAGEMENT COURSES

MGMT 103: Introduction to Business
An overview of the business world, including an introduction to economic systems, governmental actions, marketing, management, finance, accounting and human resources management. Course does not count toward any economics or business major or minor. (3 credits)

MGMT 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-listed as ECON 219. (3 credits)

MGMT 250: Principles of Management
Managerial functions and decision making, including planning, organizing, leading, motivating, controlling and conflict resolving activities in all types of organizational systems. Course does not count toward any economics or business major requirements. (3 credits)

MGMT 251: 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. (3 credits)

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). *Prerequisite:* MGMT/ECON 219. (3 credits)

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:* MGMT 320, and 250 or 251. (3 credits)

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. *Prerequisite:* MGMT 250 or 251. (3 credits)

MGMT 354: Human Resources Management
The basic processes, principles, policies, tools, techniques and methods that are utilized in the personnel function in any organization. *Prerequisite:* MGMT 250 or 251. (3 credits)

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:* MGMT 320, and 250 or 251. (3 credits)

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:* MGMT 219 or MATH 114. (3 credits)

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. *Prerequisite:* MGMT 354. (3 credits)

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:* CPSC 210 and MGMT 250 or 251. (3 credits)

MGMT 450: Internship
Supervised placement, work, and research in selected public and private organizations. *Prerequisites:* Application and permission of the instructor. (3-12 credits)

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. *Prerequisite:* MGMT 250 or 251. (3 credits)

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. *Prerequisite:* MGMT 250 or 251. (3 credits)

MGMT 453: Collective Bargaining
The major issues in the negotiation process: bargaining, public policy implications, impasse resolution, strikes, and legislation affecting collective bargaining. *Prerequisite:* MGMT 250 or 251. (3 credits)

MGMT 454: Management Seminar
Contemporary methods and theories of management are discussed in terms of current organizational practice. *Prerequisites:* MGMT 320, 354 and senior standing. (3 credits)

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. *Prerequisite:* MGMT 354. (3 credits)

MGMT 456: Management and Society
Social, ethical, economic, legal and political restraints on organizational decisions. *Prerequisite:* MGMT 250 or 251. (3 credits)

MGMT 457: International Management
Examination of environments, resources, strategies and models of managerial functions in international organizations. *Prerequisite:* MGMT 251. (3 credits)

MGMT 458: Business Policy
An integrating course dealing with the factors that influence the formulation and implementation of organizational strategy and policy. *Prerequisites:* All other core courses and business administration senior. (3 credits)

MGMT 459: Small Business Institute
In this course student consulting teams analyze actual problem situations of cooperating regional businesses. *Prerequisites:* Application and permission of the instructor. (3 credits)

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. *Prerequisite:* MGMT 354. (3 credits)

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. *Prerequisite:* MGMT 250 or 251, three credits of CpSc. (3 credits)

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. (1-3 credits)

MARINE SCIENCE COURSES

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. (3 credits)

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. (3 credits)

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. (3 credits)

MARS 204: Writings About the Sea
A survey of literature from several genre, both fiction and nonfiction, which focuses on maritime themes and topics. (3 credits)

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. *Prerequisite:* MARS 110 or permission of the instructor. (3 credits)

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. *Prerequisite:* Four years of high school math or permission of the instructor. (3 credits)

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. *Prerequisite:* A chemistry or biology or related laboratory course. (3 credits)

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. *Prerequisite:* One year of biology or permission of the instructor. (3 credits)

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. *Prerequisite:* One semester of biology or permission of the instructor. (3 credits)

MARS 250: Wetland Ecology

The ecology and management of wetland wildlife with emphasis on the management of wetlands as ecological systems. (3 credits)

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. *Prerequisite:* One year of biology or permission of the instructor. (3 credits)

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. (3 credits)

MARS 285/585: 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. (3 credits)

MARS 298: Selected Topics

An opportunity for intensive study on a specific topic of interest. Course duration from 1 to 3 weeks. *Prerequisite:* Variable, depending on topic. (1-3 credits)

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. *Prerequisite:* General biology. (3 credits)

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. *Prerequisite:* General biology. (3 credits)

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. *Prerequisite:* General microbiology. (3 credits)

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. *Prerequisite:* Marine invertebrates, invertebrate zoology or a thorough zoology course with permission of the instructor. (3 credits)

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:* MARS 110 and one year of chemistry or permission of the instructor. (3 credits)

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. *Prerequisite:* A course in general biology and/or one semester of botany or permission of the instructor. (3 credits)

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. *Prerequisite:* General biology and/or permission of the instructor. (3 credits)

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. *Prerequisite:* Six credits of biology, including general zoology. (3 credits)

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. *Prerequisite:* One year of biology or permission of the instructor. (3 credits)

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. *Prerequisite:* Introductory biology. (3 credits)

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:* MARS 110 and one semester of geology or permission of the instructor. (3 credits)

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:* Introductory oceanography, one year of physics, algebra and trigonometry and one semester of calculus or permission of the instructor. (3 credits)

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, locomation 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. (3 credits)

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. *Prerequisite:* Introductory biology. (3 credits)

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. *Prerequisite:* One year of geology or biology or permission of the instructor. (3 credits)

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. *Prerequisite:* One year of biology. (3 credits)

MARS 432: Marine Evolutionary Ecology
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. (3 credits)

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. (3 credits)

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:* Oceanography, physical geology, college algebra or permission of the instructor. (3 credits)

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. *Prerequisite:* Physical geology and one year of math or permission of the instructor. (3 credits)

MARS 459: Coastal Geomorphology
A study of coastal environments with an emphasis on understanding the interrelationship among land forms, processes and materials. The student will participate in field studies conducted along high and low wave energy environments. *Prerequisite:* One year of geology or physical geography (landforms) or permission of the instructor. (3 credits)

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. (3 credits)

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. (3 credits)

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. (3 credits)

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. (3 credits)

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:* Nine credits in biology. (3 credits)

MARS 498/598: Selected Topics
An opportunity of intensive study in a specific topic of interest. Course duration from 1 to 3 weeks. *Prerequisite:* Variable, depending on topic. (1-3 credits)

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. (3 credits)

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. (3 credits)

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. *Prerequisite:* Introductory course in sedimentation or marine geology or permission of the instructor. (3 credits)

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. (3 credits)

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. (3 credits)

MARKETING COURSES

MRKT 230: Principles of Marketing
An analytical overview of market decision-making including product, pricing, place, and promotional strategies. (3 credits)
MRKT 331: Distribution Management
Principles, methods and problems relating to wholesaling, retailing and physical distribution management. *Prerequisite:* MRKT 230. (3 credits)

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. *Prerequisite:* MRKT 230. (3 credits)

MRKT 333: Consumer Behavior
The buying process with emphasis on economic, social, cultural and psychological determinants of consumer choice. *Prerequisite:* MRKT 230. (3 credits)

MRKT 334: Advertising Management
Management of advertising, including background, roles, planning, media strategy, message, testing, research, evaluation, and administration of advertising. *Prerequisite:* MRKT 230. (3 credits)

MRKT 335: Retail Management
Store location and layout, retail personnel management, merchandising policies and control, and marketing strategy. *Prerequisite:* MRKT 230 or permission of the instructor. (3 credits)

MRKT 336: Sales Management
Provides foundations of sales processes and management to prepare students for careers in selling or sales management. *Prerequisite:* MRKT 230 or permission of the instructor. (3 credits)

MRKT 338: E-Commerce
The role, structure, organization, and use of the Internet as a channel of distribution to conduct electronic commerce. *Prerequisites:* MRKT 230, CPSC 110 or equivalent. (3 credits)

MRKT 430: Marketing Research
Research methodology as a managerial tool used in problem solving and decision making in marketing. *Prerequisites:* ECON 219 or MGMT 219, MRKT 230, and senior standing. (3 credits)

MRKT 431: Marketing Seminar
Advanced topics in marketing with emphasis on the analysis and solution of marketing problems. *Prerequisites:* MGMT 320, MRKT 332, 333, and senior standing. (3 credits)

MRKT 437: International Marketing
The marketing issues of firms engaged in international business with emphasis on strategies for successful foreign market penetration. *Prerequisite:* MRKT 230. (3 credits)

MRKT 450: Internship
Supervised placement, work, and research in selected public and private organizations. *Prerequisites:* Application and permission of the instructor. (3-12 credits)

MRKT 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. (1-3 credits)

MATHEMATICS COURSES

MATH 113: Mathematics as a Liberal Art
A cultural enrichment course, which introduces topics and applications from different branches of mathematics. *Prerequisite:* ACSD 110 or equivalent. (3 credits)

MATH 114: Elementary Statistics
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. *Prerequisite:* ACSD 110 or equivalent. (3 credits)

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. *Prerequisite:* ACSD 110 or equivalent. (3 credits)

MATH 118: Elementary Geometry
A survey of Euclidean geometry. *Prerequisite:* ACSD 110 or equivalent. (3 credits)

MATH 120: Intermediate Algebra
Linear functions, equalities, inequalities, polynomials, algebra of functions, rational exponents, quadratic equalities and inequalities, systems of equations. *Prerequisite:* ACSD 110 or equivalent. (3 credits)

MATH 122: Matrices and Linear Programming
The algebra of matrices with applications in linear programming, algebraic and graphical solutions. *Prerequisite:* MATH 120 or equivalent. (3 credits)

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 and integral calculus is replaced with the explanation-example approach. Non-traditional applications are stressed. *Prerequisite:* MATH 120 or MATH 125 or equivalent . (3 credits)

MATH 125: Precalculus
A bridge between high school algebra and calculus involving polynomial, trigonometric, logarithmic, exponential functions, complex numbers, and the conic sections. *Prerequisite:* MATH 120; or two years of high school algebra and appropriate placement score. (4 credits)

MATH 131: Discrete Mathematics
Topics include propositional calculus, set theoretic concepts, relations and functions, mathematical induction, counting techniques, recursion, graphs and trees. *Prerequisite:* MATH 125; or high school trigonometry/precalculus and appropriate placement score. (3 credits)

MATH 210: 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. *Prerequisite:* ACSD 110 or equivalent and Freshman II standing. (3 credits)

MATH 214: Applied Statistics
Sampling techniques, multiple correlation and regression, analysis of variance and covariance, non-parametric methods. Bayesian statistics. *Prerequisite:* MATH 114 and either MATH 123 or 125. (4 credits)

MATH 225: Calculus I
Limits, continuity. Differential calculus for algebraic and transcendental functions of one variable with applications. Introduction to integration. *Prerequisite:* MATH 125; or high school trigonometry/ precalculus and appropriate placement score. (4 credits)

MATH 230: Calculus II
Integral calculus for functions of one variable. Definite integrals, techniques of integration, and applications. Infinite series. *Prerequisite:* MATH 225. (4 credits)

MATH 231: Calculus III
Differential and integral calculus for functions of several variables and vector fields. *Prerequisite:* MATH 230. (4 credits)

MATH 235: Modern Concepts of Mathematics
Basic logic and set theory, and methods of proof, induction, relations and functions. *Prerequisite:* MATH 225 and MATH 131. (3 credits)

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. *Prerequisite:* MATH 230. (3 credits)

MATH 301: Differential Equations I
First and second order differential equations, infinite series solutions, Laplace transforms, existence and uniqueness theorems. *Prerequisite:* MATH 240. *Co-requisite:* MATH 231. (3 credits)

MATH 302: Differential Equations II
A continuation of MATH 301. Systems of ordinary differential equations, non-linear systems and stability, partial differential equations. *Prerequisite:* MATH 301. (3 credits)

MATH 304: Geometric Structures
Finite and infinite axiomatic systems, including Euclidean and projective geometrics. *Prerequisite:* MATH 235. (3 credits)

MATH 307: 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. *Prerequisite:* MATH 230. (3 credits)

MATH 308: 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:* MATH 307. (3 credits)

MATH 309: Linear Algebra
Vector spaces, linear transformations, matrices, and determinants with applications. *Prerequisite:* MATH 240. *Co-requisite:* MATH 231. (3 credits)

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 geometry, measurement, statistics, and probability. This course will not count as an upper division course for mathematics majors. *Prerequisite:* MATH 210. (3 credits)

MATH 311: Introduction to Operations Research
Linear programming, transportation and assignment problems, branch and bound algorithm, simulation. *Prerequisite:* MATH 122 or 240. (3 credits)

MATH 313: Introductory Analysis I
Cardinality, topology of the real numbers, sequences and continuity of functions. *Prerequisites:* MATH 231 and MATH 235. (3 credits)

MATH 314: Introductory Analysis II
Differentiation, Mean Value Theorem, Integration, series (convergence, exponential, trigonometric functions). *Prerequisite:* MATH 313. (3 credits)

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. *Prerequisite:* MATH 240 and some competence in a computer language. (3 credits)

MATH 320: Theory of Numbers
A study of the properties of natural numbers and number theoretic functions. *Prerequisite:* MATH 235. (3 credits)

MATH 325: Abstract Algebra I
An introduction to groups. Topics include integers mod n, cyclic groups, permutation groups, normal subgroups, isomorphisms, finite Abelian groups. *Prerequisite:* MATH 235. (3 credits).

MATH 326: Abstract Algebra II
An introduction to rings. Topics include integral domains, fields, polynomial rings. *Prerequisite:* MATH 325. (3 credits)

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. *Prerequisite:* PHYS 211 and MATH 240. *Co-requisite:* MATH 231. (3 credits)

MATH 403: Elementary Topology
Topological properties of the real line. *Prerequisites:* MATH 309 and 313. (3 credits)

MATH 406: Intermediate Analysis
Selected topics. *Prerequisite:* MATH 314. (3 credits)

MATH 407: Complex Variables
Complex numbers, analytic functions, complex integration, convergence of sequences and series, and applications. *Prerequisite:* MATH 313. (3 credits)

MATH 490: Independent Study
Supervised study in advanced area. *Prerequisites:* Two 300-level mathematics courses, a 3.000 QPA in major, permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

MATH 491: Mathematics Seminar
Designed to broaden the students' backgrounds by investigating topics in mathematics not usually taught in the regular curriculum. *Prerequisites:* MATH 235 and one 300 or higher level math course or permission of the instructor. Students may elect to take course up to three times. (1 credit)

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. (1-3 credits)

MILITARY SCIENCES (ARMY ROTC) COURSES

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. ++ (3 credits)

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. Students are also introduced to the basic military branches and how they fit into the military structure. Includes a lab. ++ (3 credits)

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. ++ (3 credits)

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. ++ (3 credits)

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:* None, but department chair approval required. (3 credits)

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:* 3.0 GPA in military science studies, permission of the instructor, department chairperson, and dean of the college. (3 credits)

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. Permission of the department chair required to take this course. Includes a lab. ++ (4 credits)

MS 302: Military Science: ROTC 302

Continues development of intermediate level cadet leader skills in preparation for Advanced Camp Training 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.++ (3 credits)

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. (3 Credits)

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 Gettysburg battlefield. Permission of the department chair required to take this course. Includes a lab. ++ (4 credits)

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. Permission of the department chair required to take this course. Includes a lab. ++ (4 credits)

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:* MS 301, MS 302, MS 350, Professor of Military Science permission) (3 credits)

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. *Prerequisites:* 3.000 QPA in military science studies, permission of the instructor, department chairperson, and dean of the college where the study will be conducted. (1-3 credits)

++ Conflicts with leadership laboratory may be over-ridden by department chairperson.

MODERN LANGUAGE COURSES

MODL 101, 102, 103: English as a Second Language

A broad and practical working knowledge of the English language for non-native speakers. Courses will prepare the non-native speaker for college coursework in English. Language laboratory attendance required. Students will be placed at the appropriate level based on standardized examination. Cross-listed as ESL 101-102-103. (3 credits each)

MODL 151, 152, 153: 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. Three hours of MODL 151 is the prerequisite for MODL 152. Three hours of MODL 152 is the prerequisite for MODL 153. 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. (1-9 credits)

MODL 250: Introduction to Western Languages

An introduction to the major languages of the Western world and a presentation of the historical relationships among the languages, along with a practical initiation to the languages. (3 credits)

MUSIC COURSES

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. (3 credits)

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. (3 credits)

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. (3 credits)

MUSI 105: Jazz
The stylistic development of jazz and its relevance to society. (3 credits)

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. *Prerequisite:* proficiency on a musical instrument or voice. (1 credit)

MUSI 107: Fundamentals of Music
Understanding and using music notation and terminology. (3 credits)

One credit for every semester of satisfactory participation is granted for any of the following music performance groups (symphonic wind ensemble through flute ensemble), with a maximum allowance of ten credits in any one music organization. Additional credits are possible with a waiver from the departmental chairperson. These ensembles are available also without credit

MUSI 114/214/314/414: Symphonic Wind Ensemble
A chamber ensemble composed of select musicians chosen by audition, performing contemporary literature as well as transcriptions for winds and percussion. *Prerequisite:* Audition with the director of the Symphonic Wind Ensemble and the instrumental faculty. (1 credit)

MUSI 115/215/315/415: 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. (1 credit)

MUSI 116/216/316/416: 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. (1 credit)

MUSI 117/217/317/417: 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. (1 credit)

MUSI 118/218/318/418: 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. (1 credit)

MUSI 119/219/319/419: 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. (1 credit)

MUSI 120/220/320/420: 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. (1 credit)

MUSI 121/221/321/421: 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. (1 credit)

MUSI 122/222/322/422: 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. (1 credit)

MUSI 123/223/323/423: 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. (1 credit)

MUSI 124/224/324/424: 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. (1 credit)

MUSI 125/225/325/425: Percussion Ensemble
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. (1 credit)

MUSI 126/226/326/426: 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. (1 credit)

MUSI 127: Orientation to Music Therapy
Orientation to the field of music therapy through lectures, readings, films, and field trips to clinical centers. (1 credit)

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. (1 credit)

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. (1 credit)

MUSI 132: Class Piano II
Continued development of skills begun in Class Piano I (MUSI 131). *Prerequisite:* MUSI 131 or equivalent. Music majors only. (1 credit)

MUSI 133: Class Voice I
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. (1 credit)

MUSI 134: Class Voice II
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. *Prerequisite:* MUSI 133. (1 credit)

MUSI 135: Class Strings
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. (1 credit)

MUSI 137: Class Guitar I
A study of the fundamental concepts needed to play and teach beginning guitar. Students must provide their own instruments. Music majors only. (1 credit)

MUSI 138: Class Guitar II
Continued development of skills begun in Class Guitar I (MUSI 137). *Prerequisite:* MUSI 137 or equivalent. Music majors only. (1 credit)

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. Should be taken concurrently with music 154. (2 credits)

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. Should be taken concurrently with MUSI 151. Two class meetings each week. (1 credit).

MUSI 165/265/365/465: 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. *Prerequisite:* Audition. 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. (3 credits)

MUSI 166/266/366/466: 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. *Prerequisite:* Audition. 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. (3 credits)

MUSI 167/267/367/467: 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. *Prerequisite:* Audition. 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. (3 credits)

MUSI 168/268/368/468: 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. *Prerequisite:* Audition. 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. (3 credits)

MUSI 169/269/369/469: 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. *Prerequisite:* Audition. 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. (3 credits)

MUSI 170/270/370/470: 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. *Prerequisite:* Audition. 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. (3 credits)

MUSI 179/486: Applied Music
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. (1 credit)

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:* MUSI 127 and 137. (1 credits)

MUSI 201: Studies in Children's Music
Listening, moving, playing instruments, singing and creating using repertoire suitable for children of various developmental levels. (3 credits)

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. (2 3 credits)

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:* MUSI 127, 137, 138, 199 or concurrent enrollment. (1 credits.)

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. *Prerequisite:* MUSI 127 and 137. (0/1 credit)

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. *Prerequisite:* MUSI 228 and 229. (0/1 credit)

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. (1 credit)

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. *Prerequisite:* MUSI 132 or equivalent. Music majors only. (1 credit)

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. *Prerequisite:* MUSI 234 or equivalent. Music majors only. (1 credit)

MUSI 236: Behavioral Techniques in Music Therapy
Consideration of historical bases and experimental evidences of the influence of music on behavior; principles of music therapy; behavioral observation techniques. *Prerequisite:* MUSI 127, 199, and 228. (2 credits)

MUSI 245: Class Brass
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. (1 credit)

MUSI 246: Class Woodwinds
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). (1 credit)

MUSI 247: Class Percussion
A study of the fundamental concepts needed to play and teach beginning percussion instruments (pitched and non-pitched). (1 credit)

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. *Prerequisite:* MUSI 151 or equivalent. Should be taken concurrently with MUSI 256. (2 credits)

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. *Prerequisite:* MUSI 253 or equivalent. Should be taken concurrently with MUSI 257. (2 credits)

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. *Prerequisite:* MUSI 254 or equivalent. Should be taken concurrently with MUSI 258. (2 credits)

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:* MUSI 154 or equivalent; should be taken concurrently with MUSI 253. (1 credit)

MUSI 257: Musicianship Skills III
Continued study of chromatic harmony and more complex melodic passages, complex meters. Two class meetings per week. *Prerequisites:* MUSI 256 or equivalent; should be taken concurrently with MUSI 254. (1 credit)

MUSI 258: Musicianship Skills IV
Study of rhythmic counterpoint and late 19th century and 20th century harmony. Two class meetings per week. *Prerequisites:* MUSI 257 or equivalent; should be taken concurrently with MUSI 255. (1 credit)

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. *Prerequisite:* MUSI 101 or permission of the instructor. A reading knowledge of music is essential. (3 credits)

MUSI 275: Keyboard Music
This course will examine the music literature for western keyboard instruments using live and recorded performances. (3 credits)

MUSI 276: Songs & Singers
This course will examine music literature for voice. Areas of consideration include solo songs, opera, oratoria, and vocal chamber music. (3 credits)

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. (3 credits)

MUSI 299: Diction for Singers
In this study of language diction for singers, students will learn the International Phonetic Alphabet and apply it to the singing of English, French, German and Italian songs. The course is open to all voice majors. *Prerequisite:* MUSI 133 or 181. (1 credit)

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. *Prerequisite:* One semester prior experience in the Marching Pride or concurrent enrollment. (1 credit)

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. *Prerequisite:* MUSI 101 or permission of the instructor. (3 credits)

MUSI 312: Music Therapy for Children
Application of music therapy techniques and materials in all areas of mental health and special education. *Prerequisites:* MUSI 236 and SPED 100. (3 credits)

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. *Prerequisite:* PSYC 100 or 105 and MUSI 236. (3 credits)

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. *Prerequisite:* MUSI 230. (0/1 credit)

MUSI 330: Clinical Integration
A supervised clinical experience allowing the music therapy student practical experience community health care agencies and educational settings. *Prerequisite:* MUSI 329. (0/1 credit)

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. *Prerequisite:* MUSI 133, 151 or equivalent. (1 credit)

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. *Prerequisite:* MUSI 151 or equivalent. (1 credit)

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. *Prerequisite:* MUSI 134 and 332; Field Experience Required. (2 credits)

MUSI 335: Elementary 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. *Prerequisite:* MUSI 134. (2 credits)

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. *Prerequisites:* MUSI 135, 245, 246, 247 and 333; Field Experience Required. (2 credits)

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. *Prerequisites:* MUSI 135, 245, 246, 247, and 333. (1 credit)

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:* MUSI 255. (2 credits)

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:* MUSI 255 and 350. (2 credits)

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. *Prerequisite:* Permission of the instructor. (3 credits)

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. *Prerequisite:* MUSI 235 or applied equivalent. (1 credit)

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. *Prerequisite:* MUSI 254 or permission of the instructor. (1 credit)

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. *Prerequisite:* MUSI 101 or permission of the instructor. (3 credits)

MUSI 387/487: 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. *Prerequisite:* MUSI 255. (1 credit)

MUSI 388/488: 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. *Prerequisite:* MUSI 255. (1 credit)

MUSI 389/489: 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. *Prerequisite:* MUSI 255 or permission of the instructor. (1 credit)

MUSI 391/491: 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. *Prerequisite:* MUSI 255 or 352. (1 credit)

MUSI 428: Music Therapy Practicum
Seminar and practical experience in clinical supervision. *Prerequisite:* MUSI 327 and 330. (3 credits)

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:* Four semesters of applied major lessons or the equivalent. (1 credit)

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. *Prerequisite:* MUSI 330. (0/1 credit)

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. *Prerequisite:* 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. (1 credit)

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. *Prerequisite:* MUSI 312, 432 or permission of the instructor and PSYC 276. (3 credits)

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. *Prerequisite:* All coursework must be completed. (3 credits)

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. *Prerequisite:* All program course work must be completed. (12, 6, or 3 credits)

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. *Prerequisite:* MUSI 101 or permission of the instructor. (3 credits)

MUSI 490: Independent Study
Students have an opportunity to study selected areas in greater concentration under the direction of a music faculty. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

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. (1 credit)

NURSING COURSES

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. *Prerequisites:* Elective CPSC 110 or 210 or Microcomputer Proficiency Exam or by permission of the faculty. (3 credits)

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. *Prerequisite:* Admission into the BSN program. (3 credits)

NURS 313/314: Health Assessment and Promotion/ Clinical

This clinical course enables the student to become skilled in assessing the many parameters that influence a client's status and behavior. Students will integrate client health dimensions including physiological, developmental, psycho-social and socio-cultural-religious assessments as a basis for formulating nursing diagnoses. *Prerequisites:* NURS 312, eligibility for advanced standing and junior level. (3 credits)

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. (3 credits)

NURS 327/328: Group Process in Nursing and Health Care/Clinical

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. *Pre/co-requisites:* Nursing 313/314, 322. (3 credits)

NURS 329/330: Nursing Process in the Home Health Care Setting

This elective course examines home health care and the necessary modifications and strategies needed for successfully caring for clients in their homes. Clinical experience is an integral part of the course. *Prerequisites:* NURS 313/314. (3 credits)

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. *Pre/co-requisites:* NURS 313/314, PHIL 325. (3 credits)

NURS 412/413: Nursing Process with School Populations

This elective course examines in-depth the role of the nurse with clients in the school setting. The course focuses on the student in relation to the school/family/community environment and explores the nurses' responsibility for enhancing the students' capability for learning in relation to restoration, promotion, and maintenance of health and development. *Prerequisites:* NURS 313 and junior or senior standing. (6 credits)

NURS 415: Management of School Health Services by School Nurses

This elective course enables school nurses to work within the school organization and the community to effectively manage school health services. *Prerequisite:* Enrollment in BSN Program or permission of the instructor. (3 credits)

NURS 416/417: Case Management in Nursing

This course is designed to prepare students to utilize the case management model to deliver professional nursing care. (3 credits [1 theory; 2 clinical]) *Prerequisite:* Nursing 313/314 (Health Assessment and Promotion) and Nursing 408/409 (Delivery of Nursing Care in a Managed Care Environment) and PHIL 325 (Medical Health/Care Ethics) are pre- or co-requisite.

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:* NURS 313, 324, SASW 317 and senior standing. (3 credits)

NURS 426/427: Community Health Nursing/Clinical

In this course, the focus is on the community as the client. Students use the nursing process to assess, plan, implement, and evaluate nursing care for populations and communities. Theories, models, and concepts from community and public health nursing including epidemiology are used as a basis for each step of the nursing process. (3 credits)

NURS 429: Financial Management for Nursing Care 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. (3 credits)

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:* Cumulative and major QPA 2.500 and approval of minor or certificate advisor. (3 credits)

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. (3 credits)

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:* Human Anatomy and Physiology or permission of the instructor. Registration is limited to persons without ICU/CCU/Telemetry training. (3 credits)

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. *Prerequisite:* NURS 311 or permission of instructor (3 semester hours)

PARKS AND RECREATION/ ENVIRONMENTAL EDUCATION COURSES

PREE 105: Leisure-Centered Living

The constructive use of leisure and education for leisure are essential tools for a person's successful growth and development. Leisure-centered living is designed to help students investigate, evaluate, and plan leisure/play as a basic human need and necessity for well-being. (3 credits)

PREE 110: Foundations of Parks and Recreation

The historical and philosophical background of the leisure movement, recreation organizations and professional development. (3 credits)

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. (3 credits)

PREE 160: Introduction to Environmental Education

This course will focus on an introduction to the field of environmental education. Historical antecedents will be discussed, including nature education, outdoor education, and conservation education. Philosophies and methodologies appropriate for a basic understanding of environmental education will be examined. (3 credits)

PREE 170: Fundamentals of Park and Resource Management

The use of outdoor resources for recreation, the roles of the public and private sectors in outdoor recreation, and outdoor recreation planning. (3 credits)

PREE 207: Computer Aided Planning and Management

Computer applications in planning and management of parks and recreation facilities and personnel. (3 credits)

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. (3 credits)

PREE 213: Environmental Resource Analysis

A study of the principles and techniques of environmental resource analysis, landscape and scenery classification and procedures for environmental quality and impact analyses. *Prerequisite:* PREE 170 (3 credits)

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. *Prerequisite:* PREE 110 (3 credits)

PREE 216: Wilderness Trek Leadership

A field course to provide the opportunities for students to demonstrate and practice wilderness trek leadership KSAs. *Prerequisite:* PREE 211. (1 credit)

PREE 217: Wilderness Trek Planning and Logistics

A field course to provide the opportunity for students to demonstrate and practice wilderness trek planning and logistics. *Prerequisite:* PREE 211. (1 credit)

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. *Prerequisite:* PREE 120 (3 credits)

PREE 230: Recreation Leadership

The theory, principles and practices of recreation leadership including planning, organization, activity values and evaluation. *Prerequisite:* PREE 110 (3 credits)

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. *Prerequisite:* PREE 120 (3 credits)

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. *Prerequisite:* PREE 120 (3 credits)

PREE 234: Leisure Services Programming

This course focuses on recreation program planning, implementation, and evaluation. *Prerequisite:* PREE 110 (3 credits)

PREE 241: Introduction to Permaculture

This course examines the permaculture design system for creating sustainable human environments for ecologically sound habitats, work circumstances and food production systems. (3 credits)

PREE 251: Field Experience

Opportunities for basic practical experience in a variety of park and recreation/environmental education settings. May be repeated up to 3 times. *Prerequisite:* Permission of the instructor. (1 credit)

PREE 260: 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. *Prerequisite:* PREE 160 or 170. (3 credits)

PREE 261: 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. Prerequisite 160 or 170 (3 credits)

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. (3 credit)

PREE 311: Principles of Commercial Recreation/Tourism
A study of the various forms of commercial recreation, business and facilities providing recreational opportunities. (3 credits)

PREE 313: Recreation Area Design
A study of the fundamentals of site planning for recreation areas and facilities. *Prerequisite:* A basic planning and design course or permission of the instructor. (3 credits)

PREE 314: Clinical Aspects of Therapeutic Recreation (moved)
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. *Prerequisite:* PREE 220. (3 credits)

PREE 316: Management of Leisure Services and Commercial Facilities
A study of the design, operation and maintenance of selected park and recreation facilities. (3 credits)

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. (3 credits)

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:* PREE 220 and 229. (3 credits)

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:* PREE 220 and 229 and 319 or permission of the instructor. (3 credits)

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.

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. (3 credits)

PREE 351/352: Practicum in Recreation Leadership/ Environmental Education
Observation and participation in parks and recreation or environmental education activities. *Prerequisite:* Permission of the instructor. (3 credits each)

PREE 354: Cooperative Education III
A supervised work experience for students in the cooperative education program. May be taken twice. (6 credits)

PREE 361: Environmental Teaching
This course is a study of educational methodology using a total environmental perspective. Field trips required. (3 credits)

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. (3 credits)

PREE 372: Visitor Services Management
A study of visitor services including information, safety, rescue and law enforcement services. (3 credits)

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.

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. (3 credits)

PREE 378: 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.

PREE 380: Junior Honors
Course provides opportunity for the academically superior junior to conduct research and/or a project not otherwise available under the curriculum. *Prerequisite:* permission of advisor, honors committee, departmental chairperson, and dean. (1-3 credits)

PREE 399: Introduction to Research in Parks and Recreation
A study of research methods applicable to park and recreation situations. *Prerequisite:* Junior PREE major or permission of the instructor. (3 credits)

PREE 411: Tourism Planning and Operations
This course studies the different components of travel, as well as the planning and operation of group/package tours and tourist attractions. (3 credits)

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. (3 credits)

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. (3 credits)

PREE 414: Concepts and Trends in Travel and Tourism
The course will focus on current concepts and trends of the travel and tourism industries both domestically and internationally. (1-3 credits)

PREE 415: Issues 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. (3 credits)

PREE 416: Resort/Conference Group Recreation
This course examines the planning, organization, pricing, and evaluation of recreation programs, activities, and special events at various four season residential, time share, and camping resorts. This course will also analyze the planning, developing, marketing, administration, and implementation of conference group recreation and special events. (3 credits)

PREE 420: Recreation and the Aging Process
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. *Prerequisite:* PREE 220 or permission of the instructor. (3 credits)

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. *Prerequisite:* PREE 220 and PREE 229 and PREE 319 and PREE 320 (3 credits)

PREE 423: Therapeutic Recreation Interventions/Leisure Education
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:* PREE 220 and PREE 229 and PREE 232 and PREE 233 and PREE 320 and PREE 319* (3 credits)
*or permission of the instructor

PREE 436: Tournament Structure and Administration
A study of the organization, administration and supervision of tournaments held in resorts, athletic clubs, and communities. (3 credits)

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. (9-12 credits)

PREE 454: Cooperative Education IV
A supervised work experience for students in the cooperative education program. May be taken twice. (6 credits)

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. (12, 6, or 3 credits)

PREE 464: Environmental Decision Making
This course focuses on active participation in the environmental decision making process through the development of cooperative and individual learning strategies which can be transferred to a classroom or non-formal educational setting. The course examines the process of making decisions that impact the environment, from identifying environmental problems, investigating environmental issues, and perfecting strategies for taking action to address these situations. Students will learn and develop skills of scientific inquiry, fact finding, critical thinking, issue analysis, and conflict resolution. Students will design an issue investigation project to address an environmental issue of their choice. (3 credits)

PREE 470: Resource Policy and Administration
A study of the administrative and executive aspects of resource management. (3 credits)

PREE 471/ 684: 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. (3 credits)

PREE 472/674: Park Law Enforcement
This course provides basic law enforcement skills essential for the park law enforcement ranger. (3 credits)

PREE 475: Park and Resource Management
The principles and practices of recreational land and water management. Field trips required. *Prerequisite:* PREE 170 (3 credits)

PREE 478: Resource Management Planning
A study of resource management planning applied to park and recreation areas. *Prerequisites:* PREE 340 and 475 or permission of the instructor. (3 credits)

PREE 480: Senior Honors
Course provides opportunity for academically superior seniors to conduct research and/or a project not otherwise available in the curriculum. *Prerequisite:* Permission of advisor, honors committee, departmental chairperson, and dean. (1-3 credits)

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. *Prerequisite:* permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

PREE 491: Professional Seminar
This course is designed to assist students in preparing for entry into the environmental education profession. Topics will include career planning, employment opportunities, employment seeking skills, and discussions centering on areas of interest to the student. (1 credit)

PHILOSOPHY COURSES

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. (3 credits)

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. (3 credits)

PHIL 123: Ethics
An introduction to the study of questions concerning right action, moral obligation, and an examination of various theories of moral judgment. (3 credits)

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. (3 credits)

PHIL 163: Philosophy in Literature
An examination and discussion of the philosophical content of poetry and prose of outstanding literary and philosophical merit. (3 credits)

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. (3 credits)

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. (3 credits)

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. *Prerequisite:* One course in philosophy or permission of the instructor. (3 credits)

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. *Prerequisite:* Logic or algebra. (3 credits)

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. (3 credits)

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. *Prerequisite:* Prefer to have students with background in health care fields, social and behavioral sciences, life sciences, pre-law, pre-med and philosophy. (3 credits)

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. *Prerequisite:* Prefer students with background in business, accounting, management, marketing, finance, economics, communication and pre-law. (3 credits)

PHIL 331: Social and Political Philosophy
An in-depth study of central concepts and issues in social and political thought. *Prerequisite:* Prefer students with background in history, philosophy, pre-law, psychology, government and public affairs, and sociology. (3 credits)

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. *Prerequisite:* Prefer students with background in communication, history, philosophy, pre-law, government and public affairs, and sociology. (3 credits)

PHIL 341: Philosophy of Religion
A critical inquiry into the nature and validity of religious belief and experience, its unity and variety, its relation to other human interests. *Prerequisite:* One course in philosophy or permission of the instructor. (3 credits)

PHIL 343: Oriental Religious and Philosophical Thought

An investigation of the central religions and philosophical ideas of Oriental cultures, focusing primarily on the cultures of India, China, Japan and Southeast Asia. *Prerequisite:* One course in philosophy or permission of the instructor. (3 credits)

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:* Two college-level courses in Natural Sciences and Mathematics. (3 credits)

PHIL 353: Mysticism and Psychical Research

A philosophical assessment of the methods, findings, and significance of investigations into phenomena referred to as "paranormal," including ESP, psychokinesis, survival of death, and mystical experience. Intensive writing. (3 credits)

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. *Prerequisite:* One course in philosophy or permission of the instructor. (3 credits)

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. *Prerequisite:* One course in philosophy or permission of the instructor. (3 credits)

PHIL 373: Modern Authors and Issues

Variable content within the modern contemporary period of philosophical thinking. *Prerequisite:* One course in philosophy or permission of the instructor. (3 credits, repeatable to 6 credits)

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." *Prerequisite:* One course in philosophy or permission of the instructor. (3 credits)

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. *Prerequisite:* one course in philosophy or permission of the instructor. (3 credits)

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. *Prerequisites:* 15 credits in philosophy or permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-6 credits)

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. *Prerequisite:* One course in philosophy or permission of the instructor. (3 credits repeatable to 6 credits)

PHYSICAL EDUCATION AND SPORT MANAGEMENT COURSES

Wellness and Lifetime Activity Courses (offered to all students)

PESM 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. (1 credit)

PESM 111: Lacrosse

This course is designed to develop skills that are necessary to play lacrosse. The course also provides the opportunity to learn team strategies, analysis of skill, and comprehension of rules. (1 credit)

PESM 112: Bowling

This course is designed to introduce the student to all phases of bowling through application of the skills used in these activities. (1 credit)

PESM 113: Golf

This course is designed to introduce the student to all phases of golf through application of the skills used in these activities. (1 credit)

PESM 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. (1 credit)

PESM 115: Hatha Yoga

This course helps with the physical manipulation of the body into asanas using relaxation and breathing techniques. (1 credit)

PESM 118: Basketball

This course offers an opportunity to learn and to develop the basic skills and techniques used in playing basketball. (1 credit)

PESM 121: Racquetball

This course provides an opportunity to acquire the basic knowledge, etiquette, skill and rules in the game of racquetball. (1 credit)

PESM 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. (1 credit)

PESM 126: Field Hockey

This course helps students to learn and develop the basic skills and techniques used in playing and teaching field hockey. (1 credit)

PESM 127: Touch and Flag Football

This course helps students develop the basic skills, appreciation and knowledge of this recreational sport activity. (1 credit)

PESM 132: Beginning Gymnastics

This course covers the fundamental skills associated with gymnastics. The classwork is based on a sound progression of skills, with an understanding of the mechanics involved in the sport. (1 credit)

PESM 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. (1 credit)

PESM 134: Judo
This course deals with the skills, knowledge, and attributes needed to become a beginning player in the game of Judo. Skill levels gained are equivalent to green belt level in the Judo ranking system. (1 credit)

PESM 135: Karate
This course introduces students to the knowledge, skills, and training techniques in karate. The formal skills are taken from the Korean Art of TAE Kwon Do. (1 credit)

PESM 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. (1 credit)

PESM 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. (1 credit)

PESM 142: Soccer
This course includes the fundamentals of the game, including the skills and rules for both regular students and special groups. (1 credit)

PESM 145: Softball
This course covers the fundamental skills of softball, including individual skills to offensive and defensive play. (1 credit)

PESM 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. (1 credit)

PESM 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. (1 credit)

PESM 151: Track and Field
Students will be introduced to various running, jumping, and throwing events involved with track and field. Skill acquisition, training methods, and nutritional recommendations will be emphasized. (1 credit)

PESM 154: Volleyball
This course is designed for students to acquire the fundamental skills of volleyball. Techniques, rules, and strategies of the game will be emphasized. (1 credit)

PESM 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. (1 credit)

PESM 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. (1 credit)

PESM 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. (1 credit)

PESM 186: Cross Country Skiing
This course teaches the fundamental knowledge and skills of classical cross country skiing and touring, including waxing and equipment care. (1 credit)

PESM 187: Flatwater Canoe Tripping
This course teaches the basic skills and concepts of flatwater 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. (1 credit)

PESM 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. (1 credit)

PESM 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. (1 credit)

PESM 240: Downhill Snow Skiing II
Advanced techniques of downhill skiing are presented. Instruction takes place at Peek N' Peak Resort. (1 credit)

PESM 245: Water Polo
Students are introduced to the basic fundamentals, rules, and etiquette of water polo. (1 credit)

PESM 246: Intermediate Swimming
This course provides students with the opportunity to learn elements of good swimming and aquatic skills. Personal and safety skills will also be emphasized. (1 credit)

PESM 289: Advanced Canoeing
This course teaches students the advanced skills and techniques of canoeing. Safety instruction is emphasized. (1 credit)

PESM 346: Lifeguarding
This course leads to certification as an American Red Cross Lifeguard. The focus of the course is on developing the skills and knowledge necessary for students to assume lifeguarding responsibilities at a pool or a nonsurf open-water beach. (1 credit)

PESM 348: Aquatic Leadership
This is an advanced course designed to prepare students for leadership responsibilities in the field of aquatics. Consideration is given to aquatic programs in school, camps, and communities, as well as to related facilities and recreational programs. *Prerequisite:* Water Safety Instructor Certification. (1 credit)

PESM 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. (1 credit)

PESM 446: Water Safety Instruction
This aquatic leadership training course leads to certification as an American Red Cross water safety instructor. The course concentrates on demonstration, development and analysis of aquatic skills from a teaching viewpoint, methods of class organization, instruction and examination, and practice in teaching methods. (1 credit)

Theory and Technique Courses (open to Physical Education majors only)

PESM 106: Gymnastics Fundamentals
This course is based on a study of developmentally appropriate gymnastics. 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. (3 credits)

PESM 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. *Prerequisite:* American Red Cross Level III swimmer. (3 credits)

PESM 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. PESM 150 may be repeated to a maximum of 4 credits in different experiences. *Prerequisite:* PESM 194. (1 credit)

PESM 152: Practical Introduction to Teaching Physical Education and Health
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. (3 credits)

PESM 173: Teaching of Soccer/ Basketball
Introduces the fundamentals and teaching methods of the games of soccer and basketball through physical skill development. (1 credit)

PESM 174: Teaching of Softball/ Volleyball
Teaches students the basic skills of volleyball and softball along with learning the teaching and coaching techniques of the sports. Offensive and defensive strategies along with officiating are emphasized. (1 credit)

PESM 175: Teaching of Track and Field
Emphasizes track and field skill acquisition along with identification of appropriate teaching methods associated with these activities. (1 credit)

PESM 176: Teaching of Flag Football/Wrestling
Introduces the basic skills of the sport of football and wrestling and explains the history, rules, equipment and safety procedures for participation. The course also offers the student the opportunity to achieve minimal level cognitive, psychomotor, and affective proficiency, not only for participation, but also for the teaching and coaching of the sport of football and wrestling. (1 credit)

PESM 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. (1 credit)

PESM 178: Teaching of Golf and Bowling
Introduces students to all phases of golf and bowling through the practical application of the skills used in these activities. (1 credit)

PESM 179: Teaching of Archery/ Field Hockey
Offers an opportunity to develop skills, to learn techniques, and to achieve personal satisfaction in the performance and teaching of beginning archery and field hockey. (1 credit)

PESM 194: Sport Management - Careers and Content
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. (3 credits)

PESM 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. (2 credits)

PESM 192: Diversity Issues in Physical Education

This course will explore differences among students within a variety of physical activity 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 (2 credits)

PESM 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. (3 credits)

PESM 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. (3 credits)

PESM 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. *Prerequisite:* PESM 141. (3 credits)

PESM 243: Movement Education

This course helps students achieve a self-mastery in the fundamental areas of educational gymnastics, educational games, and educational/creative dance. It is also designed to show the student how movement education relates to an individual child's personal development – intellectually, emotionally, socially, and physically. Reflections (metacognition) written on lesson plans, an emphasis on peer teaching, and interdisciplinary connections through various stimuli are also explored. (2 credits)

PESM 252: Initial Theoretical and Pedagogical Applications of Health and Physical Education

Designed as a second level, pedagogy class experience. This course is team taught with Allied Health. The first half of the course focuses on health curricula and content and is taught by a faculty member from the Allied Health Department. The second half of the course is taught by a Physical Education/Teacher Education faculty member, and uses health content as an introduction to the study of physical education curriculum theory. *Prerequisite:* PESM 152. (3 credits)

PESM 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. (3 credits)

PESM 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. *Prerequisite:* PESM 194. (3 credits)

PESM 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. (3 credits)

PESM 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. (3 credits)

PESM 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. *Prerequisite:* PESM 194 or permission of the instructor. (3 credits).

PESM 301: Sports Officiating

This course covers officiating methods and rule interpretations. Opportunities are provided for practical experience in officiating. (1 credit)

PESM 333: Sport Communication

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. *Prerequisites:* PESM 194 and 294 or permission by instructor (3 credits)

PESM 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 *Prerequisites:* PESM 252, 274 and acceptance to teaching certification. (3 credits)

PESM 356: Racquet 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 and table tennis. Emphasis will be placed on planning and applying developmentally appropriate activities for all learners. (3 credits)

PESM 358: Lifetime/Leisure 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 golf, bowling and archery. Emphasis will be placed on planning and applying developmentally appropriate activities for all learners. (3 credits)

PESM 359: Striking/Fielding Activities and Games
This course is designed to introduce the student to the dames and skills associated with a variety of striking/fielding activities, which will include softball, volleyball and rounders. Emphasis will be placed on planning and applying developmentally appropriate activities for all learners. (2 credits)

PESM 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. (3 credits)

PESM 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. *Prerequisite:* CEDP 248 and admission to teacher certification. (3 credits)

PESM 386: 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. *Prerequisites:* PESM 150, 194, 294, 333 or permission by instructor (3 credits)

PESM 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. *Prerequisites:* PESM 150, 194, 294, 333, MRKT 230 or permission by instructor. (3 credits)

PESM 399: Sport Management Research Management
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. *Prerequisites:* PESM 150, 194, 294, and 333. (3 credits)

PESM 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. *Prerequisite:* PESM 474 or permission of instructor. (1 credit)

PESM 451: Sports 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. *Prerequisite:* PESM 150, 194, 294, 333, 386, 394, 399, 486 and 494 (6-12 credits)

PESM 452: Elementary Physical Education Methods
This course is designed to prepare the student to become an effective teacher through the practice of planning, implementing and evaluation the teaching-learning process at the elementary school level. *Prerequisite:* PESM 352. (3 credits)

PESM 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. (12 credits)

PESM 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. *Prerequisite:* PESM 352, admission to teacher certification. (2 credits)

PESM 478: Worksite Wellness Promotion
This course is designed to provide current information in the area of wellness promotion. An overview of the components, concepts, and designs of contemporary programs will be delineated. The framework for development of intervention programs for a wide variety of risk factor reduction schemes will be developed. (3 credits)

PESM 486: Sport Law
The course will demonstrate how constitutional law, contract law, tort law, labor and anti-trust law, and discrimination apply to the sport industry. In addition the course will provide a fundamental understanding of the court system and how legal issues are decided. *Prerequisites:* PESM 150, 194, 294 and 333. (3 credits)

PESM 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. *Prerequisite:* Permission of the instructor, departmental chairperson, and Dean of the college where the study will be conducted. (1-3 credits)

PESM 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. *Prerequisites:* PESM 150, 194, 294, 333, 386, advanced standing or permission of instructor. (3 credits)

PESM 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. (1-3 credits)

PESM 515: 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. (3 credits)

PHYSICS COURSES

PHYS 101: Concepts of Science I

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. (3 credits)

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. (3 credits)

PHYS 103: Investigating Matter and Energy

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. (3 credits)

PHYS 140: Engineering Graphics I

A beginning laboratory course in technological design and drawing. Topics: lettering, scales, geometric construction, orthographic sketching, and auxiliary views. (2 credits)

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. *Prerequisite:* PHYS 140. (1 credit)

PHYS 201: Elements of Physics I

Introduction to physics considering mechanics, heat, techniques of motion study and equilibrium study. Especially designed for physical education or physical therapy majors. Includes a lab. (3 credits)

PHYS 202: Elements of Physics II

A course designed to meet the physics needs of students at a non-calculus level. Application of physical principles to the life sciences is stressed. Topics in optics, electricity, heat, fluids, modern physics, and radiation are emphasized. Includes a lab. *Prerequisite:* PHYS 201. (5 credits)

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. (3 credits)

PHYS 211: General Physics I

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. *Co-requisite:* MATH 225. (4 credits)

PHYS 212: General Physics II

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 or co-requisites:* MATH 230 and PHYS 211. (4 credits)

PHYS 213: General Physics III

Covers fluids, hydrostatics and hydrodynamics, 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. *Prerequisite:* PHYS 211. (3 credits)

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. (3 credits)

PHYS/CHEM 301: Physical Chemistry I

Thermodynamics as applied to chemical and physical systems. *Prerequisites:* CHEM 108, 112, PHYS 212 or 213, and MATH 230. (3 credits)

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:* PHYS 212. *Co-requisite:* MATH 240. (3 credits)

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. *Prerequisite:* PHYS 314, MATH 301. (3 credits)

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. *Prerequisite:* Advanced standing, completion of one course in Natural Science and Mathematics and two years of high school algebra or its equivalent. (3 credits)

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. *Prerequisite:* PHYS 212 or permission of instructor. (3 credits)

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. *Prerequisite:* PHYS 211 and MATH 240. *Co-requisite:* MATH 231. (3 credits)

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. *Prerequisite:* PHYS 212 and 213. (3 credits)

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:* PHYS 211, 212, 213, and Junior standing. (2 credits)

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:* PHYS 212 and 331. (3 credits)

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:* PHYS 212 and 213. *Co-requisites:* MATH 240 and PHYS 331. (4 credits)

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:* PHYS 331, 411, and MATH 240. *Co-requisite:* MATH 301. (3 credits)

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. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

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. (1-3 credits)

POLITICAL SCIENCE COURSES

POLS 101: American National Government

A survey of American national politics, emphasis on the constitution, parties, interest groups, elections, organization and structure of government. (3 credits)

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. (3 credits)

POLS 105: Introduction to Political Theory

An introduction to classical and modern theories of politics, governments, and ideologies. (3 credits)

POLS 111: Grassroots Democracy

The average American citizen has more contact with the administrative agencies of government than with elected public officials. The course is designed to provide people with the necessary information to accomplish the following: preserve and protect their rights when interacting with administrative officials, participating in the formulation of "street level" policies, understanding the issues involved in the ongoing public debate about "government regulation." (3 credits)

POLS 151: Introduction to Public Administration

The study of the organization and procedures of administrative agencies. (3 credits)

POLS 190: Experimental

A one-time experimental course offering.

POLS 195: Workshop

Special topics of interest to undergraduates and selected members of the community. (Variable credit)

POLS 198: Selected Topics

The in-depth examination of a specific topic to be determined by the department in consultation with the instructor.

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. (3 credits)

POLS 202: Politics of Law Enforcement

The study of the courts, police, offenders, and the community in terms of the criminal justice system. (3 credits)

POLS 205: Local Administration

An introduction to the sub-state administration of public service, counties, municipalities, special districts, and local quasi-governmental organizations. (3 credits)

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. *Prerequisite:* Sophomore class standing. (3 credits)

POLS 224: Civil Liberties

An examination of the development, nature and content of civil liberties in the United States. (3 credits)

POLS 232: Nonprofit Management
An examination of management techniques in community service and nonprofit organizations. (3 credits)

POLS 253: Administrative Law
A study of the legal basis, powers, and procedures of the administrative agencies. (3 credits)

POLS 255: Introduction to Public Policy
The study and evaluation of the formulation, enactment, and implementation of public policies. (3 credits)

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. (3 credits)

POLS 290: Experimental
A one time experimental course offering.

POLS 295: Workshop
Special topics of interest to undergraduates and selected members of the community. (Variable credit)

POLS 298: Selected Topics
The in-depth examination of a specific topic to be determined by the department in consultation with the instructor.

POLS 300: Intergovernmental Relations
Study of federalism, its impact on administrative policy, and the current forms of intergovernmental relations including grants-in-aid and revenue sharing. (3 credits)

POLS 305: Ethical Practice in Public Administration
A study of morality and ethics in the practices of public organization employees; of conflicts arising from ethical conduct by persons in opposition to role-enforcing others; and of societal conditions for professional ethical conduct in today's society. (3 credits)

POLS 310: Research Methods
An examination of the foundations of systematic research, techniques of data collection and methods of data analysis. (3 credits)

POLS 311: Quantitative Techniques
An introduction to the application of systematic, empirical research methods to the problems and issues of public administration, public policy analysis, and not-for-profit organizations. (3 credits)

POLS 321: The Presidency
The study and evaluation of executive leadership in modern governments; the roles, functions and types of presidential leaders. (3 credits)

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. *Prerequisite:* Sophomore class standing. (3 credits)

POLS 323: The Courts
The examination of judicial structures, functions and organizations; emphasis on judicial decision-making and policies. (3 credits)

POLS/G&ES 324: Environmental Law
The study of political control of the environment. Focus on the roles played by individual persons and groups. (3 credits)

POLS 325: The Congress
The study of legislative structures, functions and organizations; focus on legislative elections, committees, and decision-making. (3 credits)

POLS 327: Public Opinion and Political Attitudes
An examination of the nature, origins, and structures of political attitudes. *Prerequisite:* 3 credits of political science or permission of the instructor. (3 credits)

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. (3 credits)

POLS 331: Japanese Politics and Culture
This course is designed to be a survey of Japanese politics, society, and culture. It will cover such areas as arts, history, philosophy, but will focus on politics and problems associated with all of these areas. *Prerequisite:* Sophomore class standing. (3 credits)

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. (3 credits)

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. (3 credits)

POLS 341: Classical Political Thought
The examination and evaluation of political theorists to approximately the year 1500; Plato, Aristotle, Augustine, Aquinas and others. (3 credits)

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. (3 credits)

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. (3 credits)

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. (3 credits)

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. (3 credits)

POLS 353: Resource Development and Grant Writing

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. (3 credits)

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. (3 credits)

POLS 360: Parties and Elections

An examination of the structures and functions of political parties in our electoral system. (3 credits)

POLS 365: International Political Economy

The in-depth analysis of the political relationships among nation-states. *Prerequisite:* Sophomore class standing. (3 credits)

POLS 366: Introduction to Chinese Politics

This course will examine China's recent political history, the structures and functions of its political system, current political and economic developments in China, and assessments of China's place in the new global order. (3 credits)

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. *Prerequisite:* Sophomore class standing. (3 credits)

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. Sophomore class standing. (3 credits)

POLS 371: Politics, Development and Security in East Asia

This course will examine the politics, economic development policies, and national security interests of Japan, South and North Korea, China and Taiwan. *Prerequisites:* Sophomore class standing. (3 credits)

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. (3 credits)

POLS 383: 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. (3 credits)

POLS 384: 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. (3 credits)

POLS 390: Experimental

A one time experimental course offering.

POLS 395: Workshop

Special topics of interest to undergraduates and selected members of the community. (Variable credit)

POLS 398: Selected Topics

The in-depth examination of a specific topic to be determined by the department in consultation with the instructor.

POLS 403: Constitutional Law

The case study and analysis of the development and growth of constitutions through judicial interpretation. (3 credits)

POLS 451: Harrisburg Internship

Assignment as an intern with a governmental agency in the state capital in Harrisburg, Pa. *Prerequisite:* Selection by competitive process; open to all students at Slippery Rock University. (9 credits)

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. *Prerequisite:* Selection for The Harrisburg internship program. (3 credits)

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. *Prerequisite:* Selection as intern in The Harrisburg internship program. (3 credits)

POLS 455: The Politics of National Service and Civil Society

An examination of community service and service learning as setting and methodology for understanding inclusive community with its attendant responsibilities, obligations, policies, structures, norms, and functions. (3 credits)

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. (1-3 credits)

POLS 495: Workshop

Special topics of interest to undergraduates and selected members of the community. (Variable credit)

POLS 498: Selected Topics

The in-depth examination of a specific topic to be determined by the department in consultation with the instructor.

PSYCHOLOGY COURSES

PSYC 100: Psychology Applied
Introduction to behavior problems and the relationship of cognitive, social, ecological and cultural factors. (3 credits)

PSYC 105: Introduction to Psychology
Psychology as a natural science covering the goals and principles of a science of behavior. (3 credits)

PSYC 201: Seminar in Professional Psychology
The course will examine the requirements, education, training, experience and aptitudes necessary to prepare for graduate school and the life of a professional psychologist. *Prerequisite:* PSYC 105 and a declared major in psychology. Course grading: Pass/No Credit. (1 credit)

PSYC 202: Psychology of Criminal Behavior
The study of how individual criminal behavior is acquired, evoked, maintained and modified. *Prerequisite:* PSYC 105. (3 credits)

PSYC 205: Environmental Psychology
Man's interference with the environment, including over-population, isolation, social institutions as environment, noise, housing, community design, behavioral effects of pollutants and behavior genetics. *Prerequisite:* 105 (3 credits)

PSYC 208: Personality
Study of normal personality: structure, dynamics, change, measurement and theories. Psychological knowledge from various sources is integrated in the search for an explanation of human behavior. *Prerequisites:* PSYC 105. (3 credits)

PSYC 210: Psychology in Business and Industry
Introduction to the application of psychology to business, industry and other organizational behavior. Subjects include employment, promotion practices, supervision, motivation, training and human factors. *Prerequisite:* PSYC 105. (3 credits)

PSYC 221: Research Methods and Statistical Applications I
Introduction to descriptive and inferential statistics used in evaluation and reporting of behavioral research. *Prerequisite:* PSYC 105. (3 credits)

PSYC 233: Sensation & Perception
Basic anatomy, physiology and role of sensory systems in perception and sensation. *Prerequisite:* PSYC 105. (3 credits)

PSYC 240: Human Sexual Behavior
Examines personal socio-cultural factors in sexual functioning. Motivational, developmental, personality and clinical implications are explored. *Prerequisite:* Psyc105. (3 credits)

PSYC 276: Abnormal Behavior
Contemporary views of abnormal behavior, its implications and treatment. *Prerequisite:* PSYC 105. (3 credits)

PSYC 300: Psychology of Gender
A survey of empirical and theoretical psychological studies of women. *Prerequisites:* Any of the following - PSYC 105, WMST 115, HIST 320, POLS 345, SASW 339, GERO 425, ENGL 243. (3 credits)

PSYC 301: Motivation
Concepts, theories and findings related to contemporary psychology of motivation. *Prerequisites:* 6 credits of psychology. (3 credits)

PSYC 303: Learning
Classical and instrumental conditioning, verbal learning, problem solving, habit formation and retention. *Prerequisites:* PSYC 221 and 225. (3 credits)

PSYC 306: Introduction to Psychological Testing
Psychological tests including intelligence, achievement, aptitude, interest and personality. *Prerequisite:* PSYC 221. (3 credits)

PSYC 310: Organization and Management
A survey of the major approaches to organization theory with emphasis on the application of psychological theories to behavior in organizational settings. *Prerequisite:* PSYC 210 and permission of the instructor. (3 credits)

PSYC 311: Physiological Psychology
Biological foundations of behavior including anatomical, physiological and chemical aspects of mammalian brain from the cellular to systems level. Topics include substrates of complex behavior and pathological states. *Prerequisite:* PSYC 105. (3 credits)

PSCY 315: Psychology of Lesbian and Gay Identities.
Overview of psychological perspectives and current research concerning lesbian, gay, and bisexual identities. *Prerequisites:* PSYC 105 or one Women's Studies course, or permission of instructor. (3 credits)

PSYC 320: Introduction to Clinical Psychology
Introduction to basic skills of clinical psychology. *Prerequisites:* PSYC 276. (3 credits)

PSYC 321/621: Drugs and Behavior
Behavioral effects and biological mechanisms underlying psychopharmacological agents. Covers both medical application and recreational abuse of drugs. *Prerequisite:* PSYC 105. (3 credits)

PSYC 325: Introduction to Experimental Psychology
Training in the design and performance of behavioral experiments. *Prerequisites:* PSYC 221. (3 credits)

PSYC 326: Experimental Psychology Laboratory
A laboratory experience to accompany PSYC 225. *Prerequisite:* Concurrent enrollment in PSYC 225. (1 credit)

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:* PSYC 105, 221 and 225. (3 credits)

PSYC 344: Developmental Psychology
Human development from conception to senescence with emphasis on the theoretical and practical implications. *Prerequisite:* PSYC 105. (3 credits)

PSYC 360: History of Psychology
Changes in approaches to understanding behavior as they appear in the evolution of Western civilization. *Prerequisite:* PSYC 105. (3 credits)

PSYC 365/665: Psychology of Aging
Psychosocial, clinical and developmental aspects of aging, implications of optimal developmental and effective management of problems confronting the aged. *Prerequisites:* PSYC 225. (3 credits)

PSYC 377: Social Psychology
The psychological implications of man's social existence; a study of the social forces affecting human behavior. *Prerequisite:* PSYC 105. (3 credits)

PSYC 378: Clinical Child Psychology
An overview of the clinical practice with children, with a concentration on child therapies as they are part of the contemporary practice of psychology. *Prerequisites:* permission of the instructor. (3 credits)

PSYC 421: Research Methods and Statistical Applications II
Intermediate forms of statistical analysis of behavioral research, their rationale, and computer applications are introduced. *Prerequisites:* PSYC 221 and 225. (3 credits)

PSYC 449: Seminar in Psychology
Advanced topics will be announced in the schedule. *Prerequisites:* 9 credits of psychology or permission of the instructor. (3 credits)

PSYC 450: Psychology Internship
Supervised placement and research in selected public and private agencies at appropriate institutions. *Prerequisites:* Declared major, Jr/Sr standing, minimum 2.000 QPA, written application and departmental permission. Course grading: Pass/No Credit. (3-12 credits)

PSYC 475: Behavior Modification
Application of learning and other psychological principles in behavior therapy. *Prerequisites:* PSYC 105 and 303, or permission of the instructor. (3 credits)

PSYC 480: Behavior Management
Principles, methods and ethics of behavior management in community, industrial and/or congregate facilities. *Prerequisite:* PSYC 105 and 303. (3 credits)

PSYC 490: Independent Study
Supervised project, historical, theoretical or experimental. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

RUSSIAN COURSES

RUSS 101, 102, 103: Russian Language and Culture I, II, III
A broad and practical working foundation in the language. *Prerequisite:* RUSS 101 or the equivalent for RUSS 102; RUSS 102 or equivalent for RUSS 103. (3 credits each)

RUSS 202: Intermediate Russian I
Comprehensive review of Russian grammar with emphasis on developing the students' abilities for proficient oral and written accomplishments. *Prerequisite:* RUSS 103. (3 credits)

RUSS 210: Russian Literature in Translation
A study of representative Russian literary works from its origins to 1917. Courses taught in English; no knowledge of Russian required. (3 credits)

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. *Prerequisite:* ENGL 101 or equivalent. (1-3 credits)

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

RUSS 306: 20th Century 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. (3 credits)

RUSS 490: Independent Study
Students have an opportunity to study selected areas in greater concentration. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits

SAFETY AND ENVIRONMENTAL MANAGEMENT COURSES

AHEA 118: Introduction to Safety
Examines basic safety practices, incident causal factors, and preventative measures. (3 credits)

AHEA 218: Hazard Analysis and Legislative Compliance
Examines workplace hazards as they relate to the Occupational Safety and Health Act and promulgated standards (Labor and Construction). (4 credits)

AHEA 318: Principles of Industrial Hygiene
Concentrates upon problems and countermeasures associated with employee-related risks and environmental monitoring. *Co-requisite:* CHEM 104 or 107 or permission of instructor. (4 credits)

AHEA 328: Comprehensive Emergency Management and Fire Services
Examines comprehensive emergency management and fire services as they relate to preparing, preparing, protecting, and preserving resources. (3 credits)

AHEA 338: Ergonomics and Human Factors
Examines workplace design adversities as well as their remediation by the safety function. (3 credits) Added from Allied Health Section and was AHEA 288 in this section.

AHEA 348: Hazardous Materials and Waste Management
Examines the recognition, evaluation, control, and legislative compliance of hazardous materials and waste through effective safety management. *Co-requisite:* CHEM 104 or 107 or permission of instructor. (3 credits)

AHEA 358: Construction Safety
Safety requirements and responsibilities for the construction industry. (3 credits)

AHEA 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. (3 credits)

AHEA 408: Contemporary Safety Topics and Issues
Examines emerging issues and topics in the field of safety. Must be taken the semester prior to internship. (3 credits)

AHEA 418: Security in the Workplace
Examines security in relation to protecting assets and resources within an enterprise. (3 credits)

AHEA 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. (3 credits)

AHEA 448: Management and Integration of Safety
Involves the development, integration, evaluation, management, and cost containment strategies of the safety function within an enterprise. (3 credits)

AHEA 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. (3 credits)

AHEA 450: Internship
Provides opportunity to apply theory and develop competencies through a work-related experience in an appropriate cooperating enterprise. Summers Only. *Prerequisites:* Program/major specified requirements and/or approval of instructor. (12 credits)

SECONDARY EDUCATION COURSES

Note: Admission to and retention in the teacher education program are prerequisites for teacher education coursework; professional conduct standards, minimum overall QPA, and major QPA prerequisites also apply as specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

SEFE 200: Orientation 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. *Prerequisite:* Sophomore Standing. (3 credits)

SEFE 230: Instructional Technology: Production and Utilization
Selection, utilization and production of instructional materials. Equipment operation via self-instruction in the Media Lab. *Prerequisite:* Sophomore standing. (3 credits)

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. *Prerequisite:* SEFE 200; CEDP 248. (3 credits)

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. (3 credits)

SEFE 311: Teaching of Mathematics in Secondary Schools
The development and refinement of teaching competencies, particularly related to instruction in secondary school mathematics. The course also emphasizes mathematics curriculum, teaching aids and materials, and the use of computers. *Prerequisite:* SEFE 200 and 24 credits in area of specialization. (3 credits)

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 (post 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:* SEFE 200 and 24 credits in area of specialization. (3 credits)

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:* SEFE 200 and 24 credits in area of specialization. (3 credits)

SEFE 323: Teaching World Languages
Theory and methodology for teaching world languages throughout the K-12 curriculum. *Prerequisites:* SEFE 200, 24 credits in area of specialization, and a rating of Intermediate High on the SOPI. (3 credits)

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. *Prerequisite:* One year of college language study or placement in 201. (3 credits)

SEFE 329: Elements of Instruction
A course designed to give prospective secondary teachers an in-depth exposure to the basic principles of pedagogy, and opportunities to practice those elements through a series of microteaching episodes. (2 credits)

SEFE 349: Teaching of Science in Secondary Schools

This course emphasizes curriculum and instruction theory and practice, the active role of learners in instruction, and the nature of science as a discipline in conjunction with the teaching of biology, chemistry, earth and space science, general science, and physics in secondary schools. Students design instructional materials consistent with national goals and trends for science education. *Prerequisites:* SEFE 200 and 24 credits in area of specialization. (3 credits)

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. *Prerequisite:* Admission to Teacher Education. (2 credits)

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. *Prerequisites:* SEFE 200, 270, CEDP 248, 342; Junior Standing. (3 credits)

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. (3 credits)

SEFE 426: Practicum in Secondary Education

Designed to give secondary education majors a five-week pre-student teaching field experience in a secondary classroom under the supervision of a university faculty member. *Prerequisites:* SEFE 329, 375, and the student's "teaching of" course. (1 credit)

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 (3 credits)

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. (12, 6, or 3 credits)

SOCIOLOGY/ANTHROPOLOGY/ SOCIAL WORK COURSES

SASW 103: Contemporary Social Problems

An analysis of major social problems confronting modern society. (3 credits)

SASW 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. (3 credits)

SASW 106: Race and Ethnic Diversity in the U.S.A.

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. (3 credits)

SASW 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. (3 credits)

SASW 201: Principles of Sociology

Basic concepts of social behavior, group structure and group processes. (3 credits)

SASW 202: Introduction to Anthropology

Human beings as cultural and biological entities. Emphasis is on primitive and peasant societies. (3 credits)

SASW 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. (3 credits)

SASW 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. (3 credits)

SASW 226: Population and Society

Sociological/anthropological analysis of selected population trends, problems and controversies in the contemporary world- both literate and non-literate. (3 credits)

SASW 250: Social Welfare Institutions

An introductory analysis of social welfare policies, issues, and institutions. (3 credits)

SASW 251: Introduction to Social Work

An orientation to the field of social work and social work activities in the community. Includes agency lab. (3 credits)

SASW 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. *Prerequisite:* SASW 201 or PSYC 100 or 200. (3 credits)

SASW 304: Urban Sociology
Sociological aspects of urban life. Includes metropolitan areas and small cities. *Prerequisite:* SASW 201 or 202. (3 credits)

+SASW 309: Health and Society
An analysis of health services, public policy and institutional relations. *Prerequisite:* SASW 201 or 202 or permission of the instructor. (3 credits)

SASW 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. *Prerequisite:* SASW 202. (3 credits)

SASW 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:* SASW 202 and 311 or permission of the instructor. (3 credits)

SASW 317: Statistical Methods
Introduction to basic statistical concepts and research techniques used in social research. *Prerequisite:* SASW 201 or 202. (3 credits)

SASW 318: Research Methods
Major methods and procedures used in sociological research. *Prerequisite:* SASW 317. (3 credits)

SASW 320: Anthropology Methods
Data gathering techniques and evaluation of anthropological phenomena from tribal, peasant and industrial societies. *Prerequisites:* SASW 202 and 317 or permission of the instructor. (3 credits)

+SASW 321: Minority Groups
An examination of the minority group concept with special emphasis on women, the poor, behavioral and physical minorities. *Prerequisite:* SASW 201 or 202. (3 credits)

SASW 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. (3 credits)

SASW 323: Deviant Behavior
The subject and nature of deviance with particular emphasis on its relativity and its relationship to social control and social change. *Prerequisite:* SASW 201 or 202. (3 credits)

+SASW 324: The Family
Comparative perspectives of the family as a universal social institution. *Prerequisite:* SASW 201 or 202. (3 credits)

SASW 325: Society, Culture, and Self
An examination of the relationship between personal characteristics and social environment. *Prerequisite:* SASW 201 or 202. (3 credits)

+SASW 327: Religion and Society
Religious behavior as a component of culture and society. *Prerequisite:* SASW 201 or 202 or permission of the instructor. (3 credits)

SASW 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:* SASW 201 and PSYC 105. (3 credits)

SASW 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. *Prerequisite:* SASW 328. (3 credits)

SASW 330: Collective Behavior
An analysis of social movements, publics, crowds, mobs and similar social phenomena. *Prerequisite:* SASW 201 or 202. (3 credits)

SASW 333: Crime, Justice and Society
Crime and the social mechanisms designed to control it, vis-à-vis offender and enforcer. *Prerequisite:* SASW 201 or 202 or permission of the instructor. (3 credits)

+SASW 339: Sex Roles and Society
An examination of sex roles, what they are, how they develop and how they are maintained. An examination of the effects of sex roles on education, occupation, the polity and other institutions as well as the effects of role restrictions of personal relationships. *Prerequisite:* SASW 201 or 202. (3 credits)

SASW 340: Social Inequality
Power in modern society. Theoretical and factual analysis of stratification and mobility. *Prerequisite:* SASW 201 or 202. (3 credits)

SASW 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. *Prerequisite:* SASW 201 or 202 or GERO 265. (3 credits)

SASW 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. (3 credits)

SASW 348: Sociology of Organizations
Approaches to the study of the structure and functions of large-scale social organizations. *Prerequisite:* SASW 201 or 202. (3 credits)

SASW 355: Social Work Methods I
Principles and practice of interviewing processes as applied to casework methods. *Prerequisites:* BIOL 102, PUBA 101, PSYC 200, and SASW 251, 325. (3 credits)

SASW 356: Social Work Methods II
Expands knowledge and skills base to include social work practice with family and group systems. *Prerequisite:* SASW 251 and 355 or permission of the instructor. (3 credits)

SASW 357: Social Work Methods III
Expands knowledge and skills base to include social work practice in communities and larger social systems. *Prerequisites:* SASW 250 and 356 or permission of the instructor. (3 credits)

SASW 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:* SASW 202 and 320 or permission of the instructor. (3 credits)

SASW 407: Social Policy Issues
Problems and issues associated with social policy including the politics of welfare policy. *Prerequisite:* SASW 355 and 355 or 356. (3 credits)

SASW 412: Basic Sociological Theory
Historical and modern development of basic concepts of sociology and cultural anthropology. *Prerequisites:* SASW 201 or 202, 318 or 320, or permission of the instructor. (3 credits)

SASW 414: Law and Social Policy
Explores the legal environment of working in human services. Using law as an organizing theme, it examines how the law is applied in several policy areas such as family and children's issues, health and mental health, civil rights, gay and lesbian issues, and issues affecting the disabled. Practical topics studied include professional liability, provision of legal testimony, and advocacy. *Prerequisite:* SASW 201 or PSYC 100 or 105. (3 credits)

SASW 450: SASW Internship
Supervised placement in selected professional agencies. *Prerequisites:* For Social Work SASW 357, 407 and permission of the instructor. For Sociology SASW 317, 318, 415 and permission of the instructor. For Anthropology SASW 202, 311 and permission of the instructor. (3-15 credits)

SASW 460: Senior Synthesis
Senior-level integration of conceptual and methodological frameworks and skills. *Prerequisites:* For social work students: SASW 357, 407, 318 or permission of the instructor.

SASW 490: Independent Study
A rigorous investigation of a subject area within the department. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

SASW 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. *Prerequisite:* Introductory course in the student's major, e.g. SASW 201, 202 or 251. (1-3 credits)

+ These courses are 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.

SPANISH COURSES

SPAN 101, 102, 103: Spanish Language & Culture I, II, III
A broad and practical working foundation in the language. *Prerequisite:* SPAN 101 or the equivalent for SPAN 102; SPAN 102 or the equivalent for SPAN 103. (3 credits each)

SPAN 200: Intermediate Spanish Grammar
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. *Prerequisite:* SPAN 103 or equivalent. (3 credits)

SPAN 201: Communicating in Spanish
A functional course in speaking and writing Spanish, stressing everyday vocabulary and structure. Some grammar review. *Prerequisite:* SPAN 103 or the equivalent. (3 credits)

SPAN 210: Spanish Literature in Translation
A study of selected Spanish literary works, emphasizing the persons and ideas influencing Spanish and foreign literatures. The course will be given in English; no knowledge of Spanish required. For non-Spanish majors or minors. (3 credits)

SPAN 220: Reading in Spanish
An introduction to reading in Spanish at the intermediate level. *Prerequisite:* Spanish 103 or equivalent. (3 credits)

SPAN 300: Spanish Grammar Review
An intermediate grammar review and composition course emphasizing the basic structures of Spanish. *Prerequisite:* SPAN 200 and 201 or 220. (3 credits)

SPAN 301: Intermediate Spanish Communication Skills
Development of communication skills through a variety of activities in contexts likely to be encountered in the target culture. *Prerequisite:* SPAN 200 and 201 or 220. (3 credits)

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. *Prerequisite:* SPAN 201 (open only to Ed majors). (3 credits)

SPAN 303: Business Spanish
Designed to acquaint the student with the necessary vocabulary, linguistic knowledge, and language skills related to Hispanic foreign trade, commerce, and office procedures. *Prerequisite:* SPAN 200, 201 and SPAN 300 or 301. (3 credits)

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. *Prerequisite:* 6 Spanish credits at the 200 level. (3 credits)

SPAN 306: The Civilization of South America
Development of Latin-American civilization and aspects of the culture of Latin-American countries. *Prerequisite:* 6 Spanish credits at the 200 level. (3 credits)

SPAN 307: U.S. Spanish-Speaking Minority 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. *Prerequisite:* 6 Spanish credits at the 200 level. (3 credits)

SPAN 308: The Civilization of Mexico and Central America
A study of the development of the civilization of Mexico and Central America and important aspects of their culture, such as art, architecture, and daily life. *Prerequisite:* 6 Spanish credits at the 200 level. (3 credits)

SPAN 309: Hispanic Civilization for the Elementary Classroom
This course, designed for the Elementary Education major focuses on themes of Hispanic civilization and culture appropriate for inclusion in the elementary classroom. *Prerequisite:* 6 hours at the 200 level; open to elementary education majors only. (3 credits)

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. *Prerequisite:* 6 Spanish credits at the 200 level. (3 credits)

SPAN 318: Hispanic Literary Heritage
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. *Prerequisite:* 6 hours at 200 level or placement. (3 credits)

SPAN 330: Spanish Literature – Gen. of 98 to Present
A study of major writers genres and literary movements of Spain in this period. *Prerequisite:* 220 and 200 or 201. (3 credits)

SPAN 332: Spanish-American Literature – 20th Century and Beyond
A study of major writers genres and literary movements of Latin American in this period. *Prerequisite:* 220, 200 or 201. (3 credits)

SPAN 335: Women in Hispanic Literature
A study of Hispanic women authors and of Hispanic women as literary characters in Hispanic literature. *Prerequisite:* For Spanish credit, SPAN 220 and 200 or 201 or the equivalent. For non-Spanish credit, no prerequisite. (3 credits)

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. *Prerequisite:* SPAN 300. (3 credits)

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. *Prerequisite:* 6 Spanish credits at the 200 or above level. (3 credits)

SPAN 400: Advanced Spanish Grammar
An advanced course in the study of Spanish grammar and usage. *Prerequisite:* 9 Spanish credits at the 300-level including SPAN 300. (3 credits)

SPAN 401: Advanced Oral Communication Skills
This course will provide the opportunity for advanced students to improve their aural comprehension and their conversational abilities in Spanish. *Prerequisites:* 9 Spanish credits at the 300-level including SPAN 301. (3 credits)

SPAN 431: Spanish Literature – Medieval to 18th Century
A study and analysis of the most important works of representative Spanish authors of this period. *Prerequisite:* 9 hours at the 300-level including 300 and 318, 330 or 331. (3 credits)

SPAN 432: Spanish-American Literature Pre-Columbian to 19th Century
A study and analysis of the most important works of representative Spanish-American authors of this period. *Prerequisite:* 9 hours at the 300 level including 300 and 318, 330, or 331. (3 credits)

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. *Prerequisite:* Permission of the instructor, departmental chairperson, and dean of the college where the study will be conducted. (1-3 credits)

SPECIAL EDUCATION COURSES

NOTE: Admission to and retention in the teacher education program are prerequisites for teacher education coursework; minimum overall QPA, professional conduct standards, and major QPA prerequisites also apply, as specified in the Teacher Education Policy Manual. Details are available in the departmental office or from the student's advisor.

SPED 100: Introduction to Special Education
This course is designed to meet the needs of pre-service teachers who seek teacher certification in elementary education, secondary education, physical education, health education, music education, or environmental education. The course is required for the minor in exceptionalities. (3 credits)

SPED 105: 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. (3 credits)

SPED 202: Educational Aspects of Physical Disabilities
A description of the learner characteristics, programs and techniques used in educating physically handicapped/brain injured persons. This course is designed to teach the entry-level skills for teaching the PHBI child. The student will be able to organize classroom instruction for the PHBI child. Twenty validated clock hours of contact with physically handicapped persons are required prior to registering for SPED 400. These hours must be earned while enrolled at SRU. *Prerequisite:* SPED 100. (3 credits) (3 credits)

SPED 203: Educational Aspects of ED/LD
This course describes the characteristics of learning and/or behaviorally disordered (LBD) children, the programs designed to serve their needs and the role and function of the teachers who work with them. Twenty validated clock hours of contact with learning and/or behaviorally disordered persons are required prior to registering for SPED 400. These hours must be earned while enrolled at SRU. *Prerequisite:* SPED 100. (3 credits)

SPED 204: Educational Aspects of the Mental Retardation
This course is designed to describe the psychological and educational characteristics that distinguish retarded pupils, as revealed in current research. The course covers the nature of mental retardation, characteristics of learning, educational programs and current issues. It features an emphasis on the interactive roles of school and society in identifying and delivering services to the mentally retarded. Twenty validated clock hours of contact with mentally retarded persons are required prior to registering for SPED 400. These hours must be earned while enrolled at SRU. *Prerequisite:* SPED 100. (3 credits) (3 credits)

SPED 212: 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. (3 credits)

SPED 250: 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. (3 credits)

SPED 314: Educational Assessment of Exceptional Children
This course enables students to develop the skills necessary for making an educational assessment of disabled children in order to plan an educational program to improve their learning. Prescription writing follows assessment and is concerned with identifying the varying needs of the children and the appropriate experiences and materials necessary to promote further development in learning. (3 credits)

SPED 302: Educational Strategies: Learners with 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. (3 credits)

SPED 306: Educational Strategies: Severe Learning and Behavior Disorders
Techniques and educational strategies for teaching severely disturbed persons and juvenile delinquents for preparation for teaching in public and private residential institutions, as well as in special classes, resource rooms or homebound instruction. (3 credits)

SPED 312: Educational Strategies for Learners with Mild Disabilities
This course is designed to prepare future teachers in creating the most appropriate programs for students with mild disabilities. Course content will include current best practice strategies to facilitate effective instruction in inclusive settings. (3 credits)

SPED 313: Classroom Management Strategies
This course is designed to familiarize students with the various behavioral problems they may encounter in special education classrooms. Suggestions are given for ameliorating these problems, as well as for successfully organizing the classroom and classroom routine. (3 credits)

SPED 400: Special Education Practicum
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, regular educators, parents and resource personnel. Application of teaching techniques and materials to handicapped children in small group instruction under faculty supervision; to provide the student with an opportunity for experience in the special education classroom prior to and in preparation for the student teaching assignment. *Prerequisites:* SPED 202, 203, 204, 212, 302. Concurrent enrolled in 300, 306, 312 and 313 required. A minimum QPA of 2.5 in certification courses and overall, and approval of a practicum application are also required. (3 credits)

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. (12, 6, or 3 credits)

THEATRE COURSES

THEA 131: Fundamentals of Acting
An introduction to the theory and practice of acting. (3 credits)

THEA 132: Stagecraft
Fundamentals of modern set construction, stage lighting, properties, and costume practice. Students assist with current productions in laboratory sessions. (3 credits)

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. (3 credits)

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. *Prerequisite:* Permission of the instructor. (1 credit)

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 *Prerequisite:* Permission of the instructor. (3 credits)

THEA 222: Acting II
Intermediate-level course designed to continue the actor training begun in THEA 131. Emphasis on realistic acting techniques. *Prerequisite:* THEA 131. (3 credits)

THEA 230: 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. *Prerequisite:* THEA 131. (3 credits)

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. (3 credits)

THEA 249: Asian Theatre and Dance
An introduction to the dance and theatre of Asian cultures, with a focus on India, China and Japan. Through a combination of lecture, discussion and/or performance projects, the course examines these art forms in relation to Asian culture and aesthetics and investigates the influence of Asian dance and theatre of Western dance and theatre traditions. (3 credits)

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. (3 credits)

THEA 281: Survey of Dramatic Literature
Analysis and discussion of some of history's most celebrated works of dramatic literature, ranging from classic Greek drama through to contemporary works. 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. (3 credits)

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. *Prerequisite:* THEA 222 and permission of instructor. (3 credits)

THEA 325: 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. *Prerequisite:* THEA 131 and 151. (3 credits)

THEA 327: Acting Classic Drama
Contemporary techniques of analysis, and performance skills applied to acting the classics of the repertory, including such writers as Sophocles, Moliere, Congreve, Sheridan, and others. *Prerequisite:* THEA 222 and permission of instructor. (3 credits)

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. *Prerequisite:* THEA 222 and permission of the instructor. (3 credits)

THEA 332: Advanced Stagecraft
Advanced methods and materials of stagecraft: emphasis on thermoplastics, metals, projected scenery, unusual rigging situations, hydraulics, computer applications, and special effects. *Prerequisite:* THEA 132. (3 credits)

THEA 333: Scene Design
The principles and application of design for stage, emphasizing sketches, diagrams, and model making. *Prerequisite:* THEA 215 or permission of the instructor. (3 credits)

THEA 334: Stage Lighting
The theory and practice of stage lighting as practiced in modern theatre. *Prerequisite:* THEA 215 or permission of the instructor. (3 credits)

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:* THEA 215 or permission of instructor. (3 credits)

THEA 337: Directing
The theory and practice of directing for the modern theatre. *Prerequisites:* THEA 131, 132, and one section of 151 and 281. (3 credits)

THEA 345: Stage Management and Safety
Safe and effective production management on the modern stage. Safety education in shop, performance, and public spaces. *Prerequisite:* THEA 132. (3 credits)

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. *Prerequisites:* Junior standing and permission of the instructor. May be taken for credit four times for a maximum of 6 credits. (1-2 credits)

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:* THEA 281. (3 credits)

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. *Prerequisite:* THEA 281 or permission of instructor. (3 credits)

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. *Prerequisite:* Junior standing. (3 credits)

THEA 450: Internship
Supervised placement in a working theatre situation off campus. *Prerequisites:* Extensive and successful experience in theatre performance on campus, 2.000 QPA overall and in all theatre courses attempted, and permission of the department's curriculum committee. (3-12 credits)

THEA 490: Independent Study
A faculty-supervised project in an advanced area of theatre studies carried out independently by a qualified upper-class student. (1-3 credits)

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. *Prerequisite:* permission of the instructor. (1-3 credits)

WOMEN'S STUDIES COURSES

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. (3 credits)

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. *Prerequisite:* Prefer to have students with some background in women's studies. (3 credits)

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. *Prerequisite:* Completion of at least six credits of coursework approved for the women's studies minor. (3-12 credits)

For description of other courses listed in the program requirements see course descriptions under specific departments mentioned.

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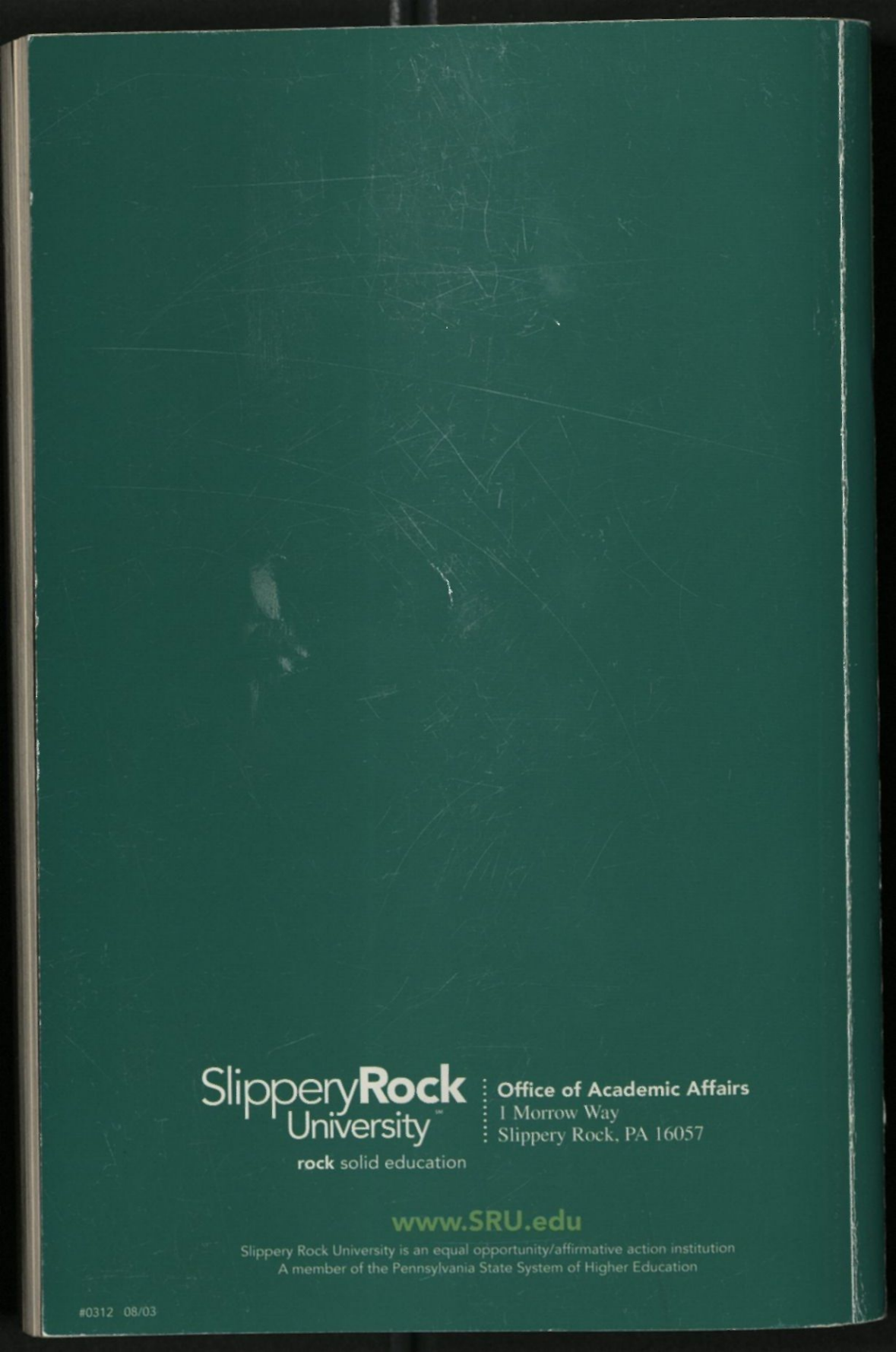
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