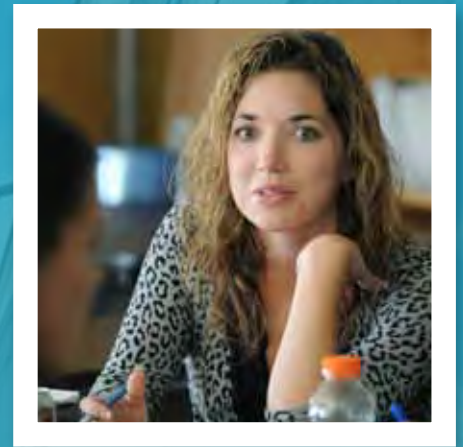
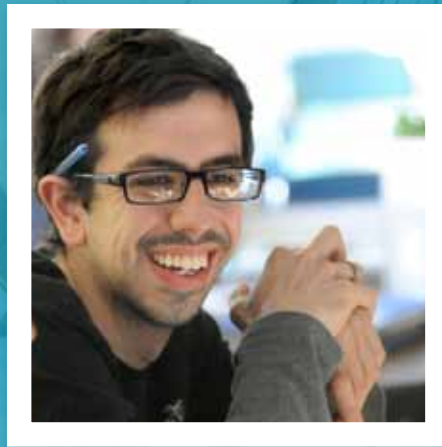
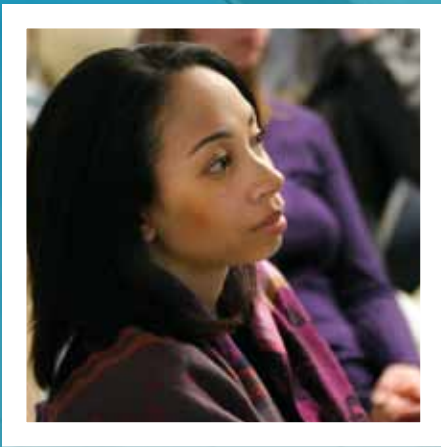




SHIPPENSBURG
UNIVERSITY

School of Graduate Studies

2012-2014 Graduate Catalog



SCHOLARSHIP

LEADERSHIP

INTERNSHIP

FRIENDSHIP

PARTNERSHIP

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**SHIPPENSBURG
UNIVERSITY**

**2012-2014
Graduate Catalog**

Including curricula leading to the degrees of:

Master of Arts

Master of Arts in Teaching

Master of Business Administration

Master of Education

Master of Public Administration

Master of Science

Master of Social Work

Academic Calendar 2012-2013

Fall Semester 2012

New faculty orientation	Monday - Tuesday	August 20-21
Faculty meetings	Wednesday	August 22
New students arrive	Thursday	August 23
Fall Welcome Week	Thursday - Sunday	August 23-26
Regular class schedule begins	Monday	August 27
Labor Day, university closed*	Monday	September 3
Fall break begins, 4 PM	Friday	October 12
Classes resume, 8 AM	Wednesday	October 17
Thanksgiving break begins, 8 AM	Wednesday	November 21
Classes resume, 8 AM	Monday	November 26
Last day of classes	Friday	December 7
Final exams	Monday - Friday	December 10-14
Graduate commencement	Friday	December 14
Undergraduate commencement	Saturday	December 15

**The fall semester has one less Monday day/evening class, made up at the discretion of faculty.*

Spring Semester 2013

New students arrive	Friday	January 18
New student orientation	Friday - Sunday	January 18-20
MLK Day, university closed	Monday	January 21
Regular class schedule begins	Tuesday	January 22
Spring break begins, 4 PM	Friday	March 15
Classes resume, 8 AM	Monday	March 25
Last day of classes	Friday	May 3
Final exams	Monday - Friday	May 6-10
Graduate commencement	Friday	May 10
Undergraduate commencement	Saturday	May 11

**The spring semester has one less Monday day/evening class, made up at the discretion of faculty.*

Summer Term 3, 2013

Session opens	Monday	May 13
Memorial Day, university closed	Monday	May 27
Special make-up for Memorial Day	Saturday	May 18
Session ends	Friday	May 31

Summer Term 4, 2013

Session opens	Monday	June 3
Special make-up day for Independence Day	Saturday	June 29
Session ends	Thursday	July 3

Summer Term 5, 2013

Session opens	Monday	July 8
Session ends	Thursday	August 8

Subject to change. For most up-to-date calendar, go to ship.edu/Provost/Academic_Year_Calendar/

Academic Calendar 2013-2014

Fall Semester 2013

New faculty orientation	Monday-Tuesday	August 19-20
Faculty meetings	Wednesday	August 21
New students arrive	Thursday	August 22
Fall welcome week	Thursday - Sunday	August 22-25
Regular class schedule begins	Monday	August 26
Labor Day, University closed*	Monday	September 2
Fall break begins, 4:00 PM	Friday	October 11
Classes resume, 8:00 AM	Wednesday	October 16
Thanksgiving break begins, 8:00 AM	Wednesday	November 27
Classes resume, 8:00 AM	Monday	December 2
Last day of classes	Friday	December 6
Final exams	Monday - Friday	December 9-13
Graduate Commencement	Friday	December 13
Undergraduate Commencement	Saturday	December 14

**The fall semester has one less Monday day/evening class--made up at the discretion of faculty.*

Spring Semester 2014

New students arrive	Friday	January 10
New student orientation	Friday - Sunday	January 10-12
Regular class schedule begins	Monday	January 13
MLK Day, University Closed	Monday	January 20
Spring break begins, 4:00 PM	Friday	March 14
Classes resume, 8:00 AM	Monday	March 24
Last day of classes	Friday	April 25
Final exams	Monday - Friday	April 28-May 2
Graduate Commencement	Friday	May 2
Undergraduate Commencement	Saturday	May 3

**The spring semester has one less Monday day/evening class--made up at the discretion of faculty.*

Summer Term 3, 2014 (tentative)

Session opens	Monday	May 12
Memorial Day - university closed	Monday	May 26
Special make-up for Memorial Day	Saturday	May 17
Session ends	Friday	May 30

Summer Term 4, 2014 (tentative)

Session opens	Monday	June 2
Session ends	Thursday	July 3

Summer Term 5, 2014 (tentative)

Session opens	Monday	July 7
Session ends	Thursday	August 7

Subject to change. For most up-to-date calendar, go to ship.edu/Provost/Academic_Year_Calendar/

Table of Contents

Academic Calendar 2012-2013.....	2	Individualized Instruction.....	20
Academic Calendar 2013-2014.....	3	Internships.....	20
Introduction.....	7	Repeating Graduate Courses.....	21
Mission of the University.....	8	Transfer Credit.....	21
Mission of the School of Graduate Studies.....	8	Graduation Requirements.....	21
Goals and Objectives.....	8	Time Limit.....	21
Brief History.....	8	Advisement.....	21
Accreditation.....	9	Admission to Candidacy.....	21
Office of the Graduate Dean.....	9	Research Requirement.....	21
Office of Graduate Admissions.....	9	Comprehensive Requirement.....	21
Office of the Registrar.....	9	Double Counting.....	21
The Campus.....	9	Dual Graduate Degrees.....	21
Travel Times.....	9	Thesis.....	21
Directions.....	9	Academic Dishonesty.....	22
Statements of Compliance.....	9	Definition.....	22
Equal Opportunity.....	9	Resolution of Charges.....	22
Sexual Harassment.....	9	Informal Resolution.....	22
Office of Disability Services.....	9	Formal Resolution.....	22
Policy for Religious Observances for Students.....	10	Penalties.....	22
Access to Educational Records.....	10	Plagiarism.....	23
Drug-Free Campus.....	10	Student Matters.....	25
Campus Safety.....	10	Tuition and Fees.....	26
Right-To-Know.....	10	Summary of Costs.....	26
Consumerism.....	10	Payment of Fees.....	26
Veteran's Benefits.....	10	Delinquent Accounts.....	26
Nonimmigrant Alien Students.....	10	Pennsylvania Resident Tuition.....	26
Educational Diversity.....	10	Out-of-State Student Tuition.....	26
Catalog Provisions.....	10	Fees.....	26
Admission Policies and Procedures.....	11	Semester Fees.....	26
Admission Policies.....	12	Technology Tuition Fee.....	26
Admission Procedures.....	12	Student Union Fee.....	26
Examinations.....	12	Educational Services Fee.....	26
Miller Analogies Test.....	12	Comprehensive Health Fee.....	26
Graduate Record Examination.....	12	Activities Fee.....	26
Graduate Management Admission Test.....	12	Special Fees.....	26
Conditional or Provisional Admission.....	12	Application Fee.....	26
Other Admission Categories.....	12	Late Payment Fee.....	26
Non-Degree Students.....	12	Graduation Fee.....	26
International Students.....	13	Miller Analogies Test Fee.....	26
Transfer Students.....	13	Parking Fee.....	27
Special Admission.....	13	Bad Check Fee.....	27
Academic Policies and Procedures.....	15	Room and Board.....	27
Applicable Policies.....	16	Meal Plans.....	27
Time Definition.....	16	Summer Sessions Room and Board.....	27
Graduate Council.....	16	Refunds.....	27
Department Chairs and Deans.....	16	Financial Assistance.....	27
Grading and Point System.....	16	Graduate Assistantships.....	27
Quality Point Average (QPA).....	16	Eligibility and Academic Load.....	27
Temporary Grades.....	16	Application Procedures.....	28
Other Types of Grades.....	17	Appointment Process.....	28
Academic Progress and Standing.....	17	Tuition Waiver.....	28
Full-Time Status.....	17	Work and Compensation.....	28
Issuance of Grades.....	17	Benefits.....	28
Grade Appeals.....	17	Late Appointments.....	28
Minimum Academic Standards.....	19	Changing Appointment.....	28
Dismissal for C Grades.....	19	Resignation, Dismissal, or Academic Probation.....	29
Dismissal for F Grades.....	19	Student Payroll Positions.....	29
Notice and Appeal.....	19	Residence Directors.....	29
Readmission of Dismissed Students.....	19	Loans.....	29
Earning Academic Credits.....	19	Academic Progress Requirements for Graduate Student Fed- eral Aid.....	29
Registering for Classes.....	19	Veteran's Benefits.....	29
Satisfying Your Bill.....	19	Housing.....	29
Dual-Level (400) Courses.....	20	Student Services.....	30
Undergraduate Courses.....	20	Office of the Graduate Dean.....	30
Withdrawal from a Class.....	20	Graduate Student Association Board.....	30
Independent Study.....	20	Registrar's Office/Transcripts.....	30
		Electronic Communication Policy.....	30
		Counseling Services.....	30

Child Care	31	John L. Grove College of Business	46
Career Development Center	31	Business Administration (MBA)	46
Computing and Network Services	31	Part-time	46
Web Support	31	Full-time	46
Computer Labs	31	Online	46
Help Desk Services	31	Admission Requirements	46
Library and Multi-Media Services	31	Certificate of Advanced Studies in Business	47
Learning Center	31	Courses	47
Tutoring Services	31	Admission Requirements	47
Learning Specialists	32	Registration	47
Multicultural Student Center	32	M.B.A. Option	47
Cora I. Grove Spiritual Center	32	Graduate Certificate of Management Information Systems	47
University Store	32	Courses	47
Women's Center	32	Admission Requirements	47
Other Information	32	Registration	47
Commencement	32	College of Education and Human Services	48
Fee Waiver for Senior Citizens	32	Counseling and College Student Personnel Department	48
Pennsylvania Residency	33	Department Mission and Student Learning Goals	48
Weather Conditions	33	Accreditation	48
University Curricula	35	Programs Offered	48
Graduate Degrees	36	Admission to Program	48
Departments and Degree Programs	36	Admission to Candidacy	49
Master of Education Degree	36	Certification in Counseling	49
Instructional Certificates	37	Licensure in Counseling	49
Teacher Certification	37	Counseling (M.S.)	49
K-12 School Principal Certification	37	College Counseling Concentration	49
Supervisory I Certificate	37	College Student Personnel Concentration	50
Superintendent's Letter of Eligibility	37	Clinical Mental Health Counseling Concentration	50
College of Arts and Sciences	38	Counseling (M.Ed.)	50
Biology Department	38	Dual (K-12) School Counseling (M.Ed. and	
Biology (M.S.)	38	certification)	50
Specific Requirements	38	Supervisor of School Guidance	51
Other Requirements	38	Criminal Justice Department	51
Courses	38	Admission Requirements	51
Science Supervisor	39	Mission	51
Communication/Journalism Department	39	Administration of Justice (M.S.)	51
Communication Studies (M.S.)	39	Educational Leadership and Special Education Department	52
Degree Requirements	39	Programs Offered	52
Internships	39	Admission Requirements	52
Professional Organizations	39	School Administration (M.Ed. includes Principal	
Communication/English Supervisor	39	Certification)	52
Computer Science Department	40	Principal Certification Programs	53
Computer Science (M.S.)	40	Post-Master's Degree Curricula Leading to	
Admission Requirements	40	Certification of K-12 Principals	53
Degree Requirements	40	Post-Master's Degree Certification Program for	
Geography/Earth Science Department	40	School Principals	53
Geoenvironmental Studies (M.S.)	40	Superintendent's Letter of Eligibility Program	53
Admission Requirements	40	Supervisory I Certification	55
Mission	40	Admission Requirements	55
Core Areas	41	Supervisory I Certificate Requirements	55
Deficiencies and Prerequisites	41	Curricula Leading to Supervisory I Certification	55
Facilities	41	Counseling/Pupil Services	55
Degree Requirements:	41	Communication/English, Early Childhood Education,	
History and Philosophy Department	42	Elementary Education, Environmental Education,	
Applied History (M.A.)	42	Foreign Languages, Mathematics, Pupil Services,	
Admission Requirements	42	Reading, Science, Social Studies, and Special	
Degree Requirements	42	Education	56
Political Science Department	43	Special Education (M.Ed.)	56
Public Administration (M.P.A.)	43	M.Ed.–Certification	56
Psychology Department	43	M.Ed.–Learning Disabilities	56
Psychological Science (M.S.)	43	M.Ed.–Mental Retardation/Developmental Disabilities	56
Degree Requirements	44	M.Ed.–Behavioral Disorders	57
Sociology/Anthropology Department	44	Special Education Supervisor	57
Organizational Development and Leadership (M.S.)	44		
Admission Requirements	44		
Degree requirements	44		

Social Work and Gerontology Department	57	Chemistry (CHM).....	75
Social Work (MSW).....	57	Communication/Journalism (COM)	75
Collaboration	57	Computer Science (CSC)	77
Mission	57	Counseling (CNS)	79
Program Goals.....	57	Criminal Justice (CRJ)	81
Program Structure	57	Early Childhood/Elementary Education (ECH).....	82
Accreditation	57	Earth Science (ESS).....	83
Admissions Classifications.....	57	Economics (ECO)	83
Admission Guidelines	57	Education (EDU)	83
Evaluation of Students.....	58	Education of Exceptional Children/Special Education (EEC) 84	
Degree Requirements	58	Educational Leadership and Policy (ELP).....	86
Courses	58	English (ENG)	89
Teacher Education Department.....	59	Finance (FIN)	91
Programs Offered	59	French (FRN)	91
Admission to Teacher Education Programs.....	59	Geography (GEO).....	92
Program Requirements	59	Gerontology (GRN)	94
Elementary Education Supervisor	59	History (HIS)	94
Curriculum and Instruction (M.Ed.).....	59	Human Communication Studies (HCS)	96
Program Core (18 crs.)	59	Information Systems Studies (ISS)	96
Cluster Requirement (18 crs.).....	60	Management (MGT).....	97
Early Childhood Cluster	60	Management Information Systems (ISM).....	98
Elementary Education Cluster	60	Marketing (MKT)	98
Middle School Cluster.....	60	Mathematics (MAT).....	98
Secondary Biology Cluster	60	Music (MUS).....	100
Secondary English Cluster	60	Philosophy (PHL).....	100
Secondary Geography/Earth Science Cluster.....	61	Physics (PHY)	100
Secondary History Cluster	61	Political Science (PLS).....	100
Secondary Mathematics Cluster.....	61	Psychology (PSY)	101
Secondary Modern Languages Cluster.....	62	Reading (RDG)	102
Early Childhood Education Supervisor.....	62	Science Education (SCED)	103
Reading (M.Ed.).....	62	Social Work (SWK)	104
Admission.....	62	Sociology (SOC).....	106
Foundational Status	62	Spanish (SPN)	107
Practicum Status	62	Teacher Education (TCH).....	108
Program Completion.....	62	Directory	109
Reading Supervisor	62	Governing Boards State System of Higher Education.....	110
Partnerships in Comprehensive Literacy	62	Board of Governors.....	110
Reading Recovery	63	Council of Trustees	110
Post-Master's Degree.....	63	President's Office	110
Post-Baccalaureate Degree	63	External Affairs and University Relations	110
Science Education (M.A.T. with Teacher Certification).....	64	Academic Affairs.....	110
Program Delivery.....	64	Technology and Library Services	111
M.A.T. Admission Requirements.....	64	School of Academic Programs and Services.....	112
Program Core (30 crs.)	64	College of Arts and Sciences.....	112
Office of Professional, Continuing, and Distance		John L. Grove College of Business	112
Education Studies	65	College of Education and Human Services.....	113
Continuing and Distance Education Programs.....	66	Student Affairs	113
Contact Information	66	Administration and Finance	114
Courses of Instruction.....	69	Shippensburg University Foundation.....	116
Dual-Level (400) Courses.....	70	Department Offices.....	116
Accounting (ACC).....	70	Faculty and Administration	117
Art & Design (ART)	70	University Administration.....	118
Biology (BIO)	71	Faculty Members.....	118
Business (BSN)	73	Index.....	127
Business Administration (MBA)	74		

Introduction



Mission of the University

Shippensburg University of Pennsylvania is a regional state-supported institution. It is part of the State System of Higher Education of Pennsylvania, which is made up of 14 universities located in various geographic regions throughout the Commonwealth. Founded in 1871, Shippensburg University serves the educational, social, and cultural needs of students primarily from southcentral Pennsylvania. The university enrolls students from throughout the Commonwealth of Pennsylvania, the Mid-Atlantic region, the United States, and various foreign countries as well.

Shippensburg is a comprehensive university offering bachelor's and master's degree programs in the Colleges of Arts and Sciences, Business, and Education and Human Services. The curricula are organized to enable students both to develop their intellectual abilities and to obtain professional training in a variety of fields. The foundation of the undergraduate curriculum is a required core of courses in the arts and sciences. These courses prepare students to think logically, read critically, write clearly, and verbalize ideas in a succinct and articulate manner; they also broaden students' knowledge of the world, past and present.

The university's primary commitment is to student learning and personal development through effective and innovative teaching and a wide variety of high-quality out-of-class experiences. The ultimate goal is to have students develop to their utmost the intellectual, personal, and social capabilities they need to perform as competent citizens prepared to embark on a career immediately upon graduation or after advanced study. The personal attention given each student at Shippensburg is reflective of the strong sense of community that exists on campus and the centrality of students within it. The university encourages and supports activities which give students many opportunities to apply the theories and methods learned in the classroom to real or practical situations, such as faculty-student research and student internships. Student life programs and activities complement the academic mission and further assist students in their personal, social, and ethical development.

Committed to public service and community-centered in its relationships to the region, the university works closely and collaboratively with other organizations at institutional, programmatic, and individual levels to develop common goals, share resources, and invest cooperatively in the future of the region.

Mission of the School of Graduate Studies

Shippensburg University of Pennsylvania offers master's, post-baccalaureate and post-master's programs that encourage intellectual excellence, research and scholarship while emphasizing the development of applicable professional skills. The mission of the School of Graduate Studies is to create an atmosphere of intellectual curiosity, academic freedom, diversity, independent scholarship, and creative investigation for its students by offering programs that are:

- Current and flexible;
- Responsive to regional needs;
- Responsive to individual needs and career goals;
- High quality and affordable;
- Taught by qualified and engaged faculty;
- Applied and professional;
- Appropriately interdisciplinary;
- Designed to enhance critical analytic skills; and
- Focused on new concepts and best practices.

These programs are designed to provide advanced study that allows students to enter or advance within a profession, but they may also serve as preparation for pursuit of a doctorate or other advanced degree.

Goals and Objectives

Each program in the School of Graduate Studies embraces the values of quality, integrity, collaboration, efficiency, innovation, creativity, inclusiveness, and a belief in the actualization of individual potential. The programs build on the knowledge and skills gained in baccalaureate programs to prepare students for entry into professional fields, to ensure competence to perform at advanced professional levels, and to encourage lifelong learning in an increasingly diverse society. Academic excellence and the development of professional skills are achieved through a strong commitment to the following objectives:

- Varied and flexible course times and delivery;
- Close faculty/student relationships;
- An interactive learning environment;
- Opportunities for independent and collaborative scholarship;
- Appropriately sized classes;
- Applied practica and internships;
- Degree requirements that ensure academic integrity;
- Opportunities for integration of knowledge and the applications of technology;
- Fostering high ethical standards;
- Development of problem-solving skills.

Brief History

Shippensburg University was established in 1871 as the Cumberland Valley State Normal School. The school received official approval by the state on February 21, 1873, and admitted its first class of 217 students on April 15, 1873. In 1917 the school was purchased by the Commonwealth of Pennsylvania.

On June 4, 1926, the school was authorized to grant the bachelor of science in education degree in elementary and junior high education. The school received a charter on October 12, 1926, making it the first normal school in Pennsylvania to become a state teachers college. On June 3, 1927, the State Council of Education authorized the name change to the State Teachers College at Shippensburg.

The business education curriculum was approved on December 3, 1937. On December 8, 1939, Shippensburg State Teachers College became the first teachers college in Pennsylvania and the fourth in

the United States to be accredited by the Middle States Association of Colleges and (Secondary) Schools.

The State Council of Education approved graduate work leading to the master of education degree on January 7, 1959. On January 8, 1960, the name change to Shippensburg State College was authorized.

The arts and sciences curriculum was authorized by the State Council of Education on April 18, 1962, and the bachelor of science in business administration degree program was initiated on September 1, 1967.

On November 12, 1982, the governor of the Commonwealth signed Senate Bill 506 establishing the State System of Higher Education. Shippensburg State College was designated Shippensburg University of Pennsylvania effective July 1, 1983.

Accreditation

Shippensburg University is accredited by the Middle States Association of Colleges and Schools; AACSB International—the Association to Advance Collegiate Schools of Business; ABET, Inc. (Computer Science); the American Chemical Society (ACS); the Council on Social Work Education (CSWE); the Council for Accreditation of Counseling and Related Educational Programs (CACREP); the International Association of Counseling Services (IACS); the Council for Exceptional Children (CEC); and the National Council for Accreditation of Teacher Education (NCATE).

Office of the Graduate Dean

The Office of the Graduate Dean, located in Old Main 310, provides a number of services to graduate students including coordination of graduate assistantships. Office hours are 8:00 AM to 4:30 PM Monday through Friday during the academic year. Summer hours are 8:00 AM to 4:00 PM Monday through Friday. To contact the office call (717) 477-1148.

Office of Graduate Admissions

The Office of Graduate Admissions, located in Old Main 105, provides all services related to recruitment and admission application processing. Office hours are 8 AM to 4:30 PM, Monday through Friday. Contact the office by calling (717) 477-1231 or sending e-mail to GradAdmiss@ship.edu.

Office of the Registrar

The Office of the Registrar, located in Old Main 110, provides the following services: scheduling and registration, verification of graduate enrollment, application for graduation, requests for withdrawal, and application for change of program, name, and address. Office hours are 8:00 AM to 4:30 PM Monday through Friday. Contact the office at (717) 477-1381.

The Campus

Shippensburg University is located in the Cumberland Valley of southcentral Pennsylvania, overlooking the Blue Ridge Mountains. The campus itself is situated on 200 acres of rolling land and is surrounded by a vast array of cultural and recreational sites.

Travel Times

The interstate highway system puts Shippensburg within reasonable travel time of numerous East Coast cities:

Harrisburg	1 hour
Frederick	1 hour
Baltimore	2 hours
Washington, D.C.	2 hours
Philadelphia	2.5 hours
Pittsburgh	3 hours
New York City	4 hours



Directions

If your point of departure is ...

East of Shippensburg: Use Pennsylvania Turnpike Exit 226 (Carlisle) to I-81 south. Take I-81 to Exit 29.

West of Shippensburg: Use Pennsylvania Turnpike Exit 201 (Blue Mountain) to Route 696 south.

North of Shippensburg: Take I-81 south to Exit 29.

South of Shippensburg: Take I-81 north to Exit 24.

Statements of Compliance

The Office of Social Equity, located in Old Main 200, coordinates the university's compliance with laws and regulations relating to equal opportunity, sexual harassment, and "reasonable" accommodations for persons with disabilities. Any questions or complaints should be directed to the Executive Director of Social Equity at (717) 477-1161.

Equal Opportunity

In compliance with state and federal laws, including Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and the Americans With Disabilities Act of 1990, Shippensburg University of Pennsylvania is committed to human understanding and provides equal educational, employment, and economic opportunities for all persons without regard to race, color, sex, national origin, age, or disability.

Sexual Harassment

In compliance with federal and state laws, Shippensburg University prohibits behaviors which assert unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature which can constitute sexual harassment. Shippensburg University is committed to civil rights and will promptly investigate allegations of sexual harassment and take appropriate corrective action in cases of valid complaints.

Office of Disability Services

Shippensburg University is committed to serving all students, including those with documented disabilities. The Office of Disability Services (ODS) determines, coordinates, and provides reasonable and appropriate accommodations for eligible students who present current and comprehensive documentation. In compliance with Section 504 of the *Rehabilitation Act of 1973*, the *Americans with Disabilities Act (ADA) of 1990*, and the ADA Amendments Act of 2008, ODS delivers services as outlined by the Pennsylvania State System of Higher Education (PASSHE) and by Shippensburg University's equity plans. Additionally, the office works in coordination with the Human Resource Office to provide accommodations to campus faculty and staff with diagnosed disabilities.

Located at 120 Horton Hall, the Office of Disability Services is within the School of Academic Programs and Services and is easily accessible. For further information, visit the website at ship.edu/ods, or contact the office at (717) 477-1364 or the director at (717) 477-1329.

Policy for Religious Observances for Students

Shippensburg University respects the principle of the separation of church and state, while promoting and encouraging a climate of dignity where individuals are not discriminated against or treated differently because of their religion or national origin.

To foster and advance the precepts of an inclusive environment, students desiring to participate in the religious observances of their particular faiths, creeds, or beliefs will be granted an excused absence from scheduled classes. Faculty will make appropriate accommodations for the excused absence(s), and students will be accountable for the material covered in class. Each academic semester students will be required to provide their faculty with the dates (in writing) of scheduled religious observances.

Access to Educational Records

In accordance with the Family Educational Rights and Privacy Act of 1974 (commonly known as the Buckley Amendment), Shippensburg University provides its students with privacy safeguards of their educational records. The university issues reports of progress including grades, written evaluations, and letters of warning directly to the student. A student may have access to all information pertaining to his or her educational records and academic status.

Under the provisions of the Buckley Amendment, the university may release directory information about current students without violating privacy rights. Directory information includes name, address, telephone number, e-mail address, enrollment status, major, degree, and honors. Individual students may request this directory information *not* be released by notifying the Registrar's Office.

Drug-Free Campus

Shippensburg University complies with the Drug-Free Schools and Communities Act Amendment of 1989 and has adopted a program to prevent the unlawful possession, use, or distribution of illicit drugs and alcohol by both its students and employees.

Campus Safety

In accordance with Pennsylvania's College and University Security Information Act of 1988, Shippensburg University provides information relating to crime statistics and security measures to prospective students, matriculated students, and employees. The university will also comply with all campus safety provisions of the Student Right-To-Know and Campus Security Act of 1990.

Right-To-Know

Shippensburg University will compile graduation and completion rates for all undergraduate students as well as for undergraduate students receiving athletically related student aid. These rates will be reported to the U.S. Secretary of Education and will be disclosed to prospective students as required by the Student Right-To-Know Act.

Consumerism

Shippensburg University complies with consumer information requirements set forth in Section 493A of Title IV of the Higher Education Act of 1965 and its amendments.

Veteran's Benefits

Shippensburg University complies with the requirements of Title 38, U.S. Code, Veteran's Benefits.

Nonimmigrant Alien Students

Shippensburg University is authorized under federal law to enroll nonimmigrant alien students.

Educational Diversity

As part of a public system of higher education, Shippensburg University is responsible for educating students to face the challenges of our ever-changing global society. Shippensburg University aims to create a campus culture that offers opportunities for increasing knowledge, awareness, and understanding of diversity and inclusiveness and promotes a climate that builds upon values that welcome and nurture all members of the university community. Creating an inclusive campus environment helps to prepare students to be productive public citizens in a society comprised of people with differing national, racial, religious, and cultural backgrounds.

Shippensburg University seeks to attain these goals by offering academic and co-curricular activities that address the differences that have historically divided people and have led to unjust and discriminatory practices based on race, sex, religion, national origin, and sexual lifestyle. The university also remains committed to the recruitment and retention of a broad, inclusive student body, faculty, staff, and administration who represent a diverse range of interests, talent, and cultures. By working to accomplish these goals, Shippensburg University will ensure students receive an education that prepares them for the challenges of a global society with its diverse beliefs, attitudes, and ways of thinking.

Catalog Provisions

This catalog is intended to be a description of the policies, academic programs, degree requirements, and course offerings in effect for the 2012-2013 and 2013-2014 academic years. It should not be construed as an irrevocable contract between the student and the university. Shippensburg University reserves the right to change any of the policies, procedures, or fees described in this catalog and to apply these changes to any or all of its students as it sees fit. The university may also choose to add or delete course offerings or degree programs at any time.

Admission Policies and Procedures

Admission Policies

The following policies govern admission to all graduate degree programs.

In order to be considered for graduate study at Shippensburg University, you must present a bachelor's degree from a college or university that is accredited by the appropriate regional accrediting agency. Academic departments at their discretion may require an interview, résumé, writing sample, goal statement, letters of recommendation, or testing such as the Graduate Record Examination (GRE), Graduate Management Admission Test (GMAT), or the Miller Analogies Test (MAT).

As evidence of your ability to successfully complete a graduate program of study, you should have a cumulative undergraduate grade point average of at least 2.75 as determined by a grading system in which A equals 4.0 grade points. If you have less than a 2.75 undergraduate grade point average, you will be required to submit other evidence of your ability to successfully complete the program for which you are applying. This evidence may include a personal interview with the academic department and/or a standardized test.

Individual graduate degree programs may have their own specific requirements for admission. Information on these requirements may be found under the description of the degree program on the website at ship.edu/admissions/graduate or in the individual graduate program profile available in the Office of Admissions. If you are applying for a program in a field that is different from your undergraduate major, you may be required to take additional undergraduate courses as a condition of your admission. You will be notified of this at the time you are admitted. These courses, which do not count toward your degree requirements, should be completed early in your program of study.

Your application for admission will be reviewed by the academic department to which you are applying. The department will then make a recommendation to the Dean of the School of Graduate Studies. You will be officially notified of a decision by the Office of Graduate Admissions.

An offer of admission to graduate study requires you to matriculate and begin at Shippensburg University for the semester for which you have been admitted. If you do not matriculate by enrolling in graduate course work at Shippensburg within that semester, you may defer your application for one year. If the application is more than a year old, you must submit a new application and pay an additional application fee. You must confirm your offer of admission immediately upon receiving your letter of admission. Failure to do so will prohibit your ability to schedule and begin classes. Confirmation can be completed online through the Campus Information System, instructions are outlined in the letter of admission.

Students applying for a second master's degree or additional certification at Shippensburg University after an absence of more than one year must submit an updated application. No additional application fee is required.

Admission Procedures

Applicants for admission to Shippensburg University should apply online at ship.edu/admissions/apply. They may also e-mail GradAdmiss@ship.edu or call (717) 477-1231 the Office of Admissions and request a paper application.

Applications are accepted for the fall, spring, and summer terms. Complete and submit the application together with a non-refundable application fee of \$40 (subject to change) to the Office of Graduate Admissions. Checks should be made payable to Shippensburg University. You should make arrangements with other colleges and universities you have attended to have official transcripts sent to the Office of Graduate Admissions. You must submit transcripts from any institution where you have taken undergraduate or graduate credit. It is not necessary to submit a transcript of work taken at Shippensburg University.

Candidates are encouraged to submit applications as soon as possible to the degree program of choice. Please refer to the individual departmental descriptions or ship.edu/admissions/graduate for more specifics.

Examinations

Certain departments require you to present standardized test scores either as a regular admission requirement or for those students whose undergraduate quality point average is less than 2.75 on a 4.0 scale. Information on these requirements may be found under the description of the degree program. Please be aware some graduate programs have minimum GPA requirements higher than a 2.75 on a 4.0 scale and may not accept testing as an alternative.

Miller Analogies Test

Some departments require applicants to take the Miller Analogies Test (MAT). Shippensburg University is an official testing center for the MAT for NCS Pearson, Inc. Chicago, IL. Information regarding the test and the testing dates is available in the Office of Admissions or at ship.edu/admissions/graduate. The fee for anyone who takes this test at Shippensburg University is \$75 (subject to change).

Graduate Record Examination

Some departments require applicants to take the Graduate Record Examination (GRE). Shippensburg University is an official testing center for the GRE *subject test only* for the Educational Testing Service of Princeton, New Jersey. Applications and information on the GRE General Test are available in the Office of Admissions and at www.ets.org/gre.

Graduate Management Admission Test

Applicants to the Master of Business Administration (MBA) may be required to submit official scores for the Graduate Management Admission Test (GMAT). Information regarding the test is available in the Office of Admissions and on the web at www.mba.com.

Conditional or Provisional Admission

Occasionally an applicant will present an undergraduate academic record and standardized test scores that do not provide evidence of his or her ability to successfully complete a graduate degree program. These applicants may request additional consideration based on special circumstances or other factors. The academic department may then recommend that the applicant be admitted on a conditional or provisional basis.

Conditional admission gives such students the opportunity to meet departmental administrative requirements (e.g., license/certifications/police clearances) or complete prerequisite course work (which may include undergraduate courses) that may strengthen their academic background and prepare them to successfully complete graduate course work. The academic department will require a certain number of credits to be completed with appropriate grades within one calendar year of matriculation. The student's status will then be reevaluated to determine if he/she should be admitted as a regular degree student.

Provisional admission gives such students the opportunity to demonstrate their ability to do course work at the graduate level. The department will require a certain number of credits to be completed (generally six to nine credits) with appropriate grades. The student's status is then reevaluated at the end of the provisional semester to determine if he or she should be admitted as a regular degree student.

Other Admission Categories

Non-Degree Students

If you are a college graduate not planning to enroll in a degree program, you may apply and register as a non-degree graduate student. You must complete the online graduate non-degree application in order to register. The application is available at https://ssb.ship.edu/prod/bwvskalog.P_DisplLoginNon.

As a non-degree student, you may enroll for any graduate course for which you have the necessary prerequisite course work, with the approval of the academic department offering the course. Certain courses may not be available to non-degree graduate students. Academic departments may restrict enrollment in their courses or give scheduling preference to majors.

If you are planning to pursue a degree program you should not enroll as a non-degree student. While non-degree students may subsequently apply for a degree program, there is no assurance they will be admitted. Also, academic departments at their discretion may approve a maximum of nine credit hours of course work (with grades of B or higher) taken in non-degree status to count toward the master's degree. Non-degree students are required to meet the minimum academic standards outlined under Academic Policies and Procedures. **Applicants who have been denied admission to a degree program may take classes as a non-degree student with the permission of the academic department offering the course(s) on a course-by-course basis.**

International Students

Applicants from outside the United States who do not hold immigrant visas or permanent resident/resident alien status must complete an international application for admission. You may complete an application online at ship.edu/admissions/international or by requesting an application from the Office of Admissions.

Applicants for admission must have their complete academic records (transcripts, mark sheets, degree certificates, diplomas) evaluated by one of the following professional evaluating services: Educational Credential Evaluators (ECE) or World Education Services (WES).

Educational Credential Evaluators, Inc.
P.O. Box 514070
Milwaukee, WI 53204-3470
USA

ECE telephone number: (414) 289-3400
ECE fax number: (414) 289-3411
ECE e-mail: eval@ece.org
ECE website: www.ece.org

OR

World Education Services
P.O. Box 745, Old Chelsea Station
New York, New York 10011-0745
USA

WES telephone number: (800) 937-3895
WES fax number: (212) 966-6395
WES e-mail: info@wes.org
WES website: www.wes.org

ECE or WES will then forward their official evaluation of your credentials to the Office of Admissions. When we have received the evaluation, we will process your application for admission.

Students may begin the application process by providing evaluated academic records through their third year. Students will be required to provide an evaluated academic record including the fourth year and awarding of a degree/diploma as soon as possible after enrolling. If an updated evaluated record is not provided a **hold** will be placed on the student's account; pending fulfillment of requirements the student will be unable to schedule courses.

International applicants who have English as a second language must present an official TOEFL score report sent directly to us from the Educational Testing Service (ETS). We will accept scores from the paper-based, computer-based, or Internet-based TOEFL. We will also accept an official Intensive English Language Testing System (IELTS) score report sent directly to us from British Council et al.

All materials including admission application and fee, official TOEFL or IELTS score report, credential evaluation results, and financial information should be submitted to the Office of Admissions.

Immigration regulations require an affidavit of support and a current bank statement if the support is not furnished by an official governmental or international agency. In order to receive the I-20 document (required to apply for your F-1 student visa), you must be admitted to the degree program AND have your financial information (affidavit of support, current bank statement, and income verification) approved by our Director of International Programs. An I-20 will not be issued prior to receiving and reviewing the required documents listed above.

Upon arrival on campus, students holding F-1 visas should report to the Director of International Programs located in the Student Life Center, McLean Hall. Bring your passport, I-94, and student copy of the I-20.

Please be advised that students on the F-1 visa must be enrolled in full-time degree programs in order to maintain their immigration status. Also for F-1 students, no more than the equivalent of one graduate class or three credits per session (semester, term) may be counted if taken online OR through distance education.

International students are required to pay out-of-state tuition and are not permitted to work off campus without proper authorization. Limited on-campus employment is sometimes available for qualified students. All international students are required to carry adequate health and accident insurance.

Further questions regarding international students at Shippensburg University should be addressed to the Office of International Programs, Student Life Center, McLean Hall, 1871 Old Main Drive, Shippensburg, PA 17257-2299 USA, (717) 477-1279 or e-mail: internationalprogram@ship.edu.

Transfer Students

Shippensburg University may admit to its graduate program transfer students from other accredited graduate schools provided they are in good standing in those schools and satisfy all other admission requirements. A maximum of nine credit hours of graduate course work earned at another institution may be accepted as transfer credit towards a graduate degree. The courses must be part of a graduate degree program at the sponsoring institution and must be appropriate for the student's program at Shippensburg University. In order to be evaluated for transfer credit, courses must be listed on an official graduate transcript with a final grade of B or higher. Credit earned more than five years prior to the date you begin your graduate program at Shippensburg does not qualify for transfer credit.

The academic department of the graduate degree program to which you are applying does a transfer credit evaluation. Additional documentation (such as catalog course descriptions) may be required to complete this process. Students wanting to appeal their transcript evaluation must contact the appropriate department chair for reconsideration.

Condensed one-week graduate courses for three graduate credits do not qualify for transfer credit. A maximum of one graduate credit can be earned for one week of attendance in class, in a conference, or any other educational experience for which graduate credit is granted. Non-college educational experiences do not qualify for graduate transfer credit.

Special Admission

Graduates of accredited colleges who wish to register for up to six credit hours in special programs offered by Shippensburg University may apply for special admission. No application fee is required and an undergraduate transcript does not have to be submitted.

This category of admission is restricted to certain special programs. Students in this category who subsequently wish to be admitted to a degree program must complete a regular application and pay the application fee.

Academic Policies and Procedures

As a graduate student at Shippensburg University, you will need to understand and follow all academic policies and procedures in order to successfully complete your course of study. University officials such as your faculty advisor, department chair, and academic dean can provide assistance, but it is ultimately your responsibility to be aware of policies relating to grading, academic progress, withdrawal from courses, and requirements for graduation. This chapter explains the general academic policies for graduate students. The chapter on *University Curricula* discusses the specific requirements for individual graduate degree programs.

Applicable Policies

In general, you will be subject to the academic policies and degree requirements that are in effect during the semester you matriculate in a particular graduate program at Shippensburg University. You matriculate for this purpose by being admitted to a graduate degree program and then registering for and starting an academic semester. If you begin taking classes in the summer, you will be considered as matriculating in the fall semester.

This catalog is intended to be a description of the policies, academic programs, degree requirements, and course offerings in effect for the 2012-2013 and 2013-2014 academic years. It should not be construed as an irrevocable contract between the student and the university. Shippensburg University reserves the right to change any of the policies, procedures, or fees described in this catalog and to apply these changes to any or all of its students as it sees fit. The university may also choose to add or delete course offerings or degree programs at any time.

Time Definition

Many policies in this catalog refer to time periods such as “the first week of the semester.” A week of the semester (or “week of classes”) is defined as seven (7) calendar days beginning with and including the first day of daytime classes. For example, if daytime classes begin on a Thursday, the first week of the semester ends the following Wednesday at the official closing time of university offices (usually 4:30 PM).

Graduate Council

Within the university’s governance structure, the Graduate Council is responsible for recommending the policies that govern the operation of the graduate program. These recommendations include graduate courses and degree programs, admissions procedures and standards, graduate assistant policies, and requirements for good academic standing. Membership in the Graduate Council includes graduate faculty, college deans, the Dean of Graduate Studies, and a representative of the Graduate Student Association Board.

Department Chairs and Deans

Academic decisions concerning individual graduate students are generally made by a recommendation from the student’s department chair to the dean of the college in which the department is located. Such decisions include admission to a degree program, admission to candidacy, recommendations for independent study or individualized instruction, substitution or modification of degree requirements, extension of time for completing a degree, and final approval for graduation. Decisions of the deans are subject to review by the Dean of Graduate Studies.

Grading and Point System

The following system of grades is used to indicate the quality of academic work for graduate students:

Regular Letter Grades

A	Excellent
A-	
B+	
B	Good
B-	
C	Fair
F	Failure

Special Grades

I	Incomplete
Q	Deferred grade
P	Passed
TR	Transfer Credit
N	Audit (no credit)
W	Withdrawal

Individual faculty members may choose to use single letter grades and not award plus/minus grades.

Quality Point Average (QPA)

Your quality point average or QPA is determined by assigning numerical values to the letter marks and weighing them according to the number of class hours. The values assigned to the letters are:

A	4.0 quality points
A-	3.7 quality points
B+	3.3 quality points
B	3.0 quality points
B-	2.7 quality points
C	2.0 quality points
F	0.0 quality points

To calculate your QPA, follow these steps:

1. Compute the number of quality points earned for each course by multiplying the value of your letter grade by the number of credits earned. For example, a grade of B (3 points) in a 3 credit course earned 9 quality points.
2. Add up the quality points earned in all your classes.
3. Add up the number of credits attempted in all your classes. This total should include all classes in which you received a regular letter grade (A through F).
4. Divide the total number of quality points earned by the total number of credits attempted. This is your QPA.

Only courses in which you received a regular letter grade (A through F) are used in calculating your QPA. Courses you have repeated will have an impact on the way your QPA is calculated. See the section on *Repeating Graduate Courses* for details.

Your *semester* QPA is the average for one semester or summer term, while your *cumulative* QPA refers to the average for all courses completed during a graduate degree program. A B average would be the equivalent of a 3.0 QPA.

Temporary Grades

The grades Q and I are temporary grades, which mean you have not completed all the requirements for a particular course.

With prior approval of the appropriate dean, the grade of Q (deferred grade) may be awarded for courses such as research, thesis, and internships that are planned from the start to extend over more than one grade period. If you receive a Q grade in a course, you should work closely with the instructor to plan a schedule in order to complete the work within three years at most, or the grade will be changed to an F.

The grade of I (incomplete) can be given if you are unable to complete the requirements of a course due to a serious illness, death in the family, or other personal emergency. To request an incomplete in a particular course, you should apply directly to the instructor of the course. Apply to your college dean if you are unable to complete the requirements for all your courses. If the dean or instructor considers your reason for requesting an incomplete satisfactory, he/she will approve it. If you do not complete the work for a course in which you received a grade of I by the last day of classes before final exam week of the next full semester, you will receive a grade of F for the course. You may not graduate from the university with a temporary grade on your record.

Other Types of Grades

A grade of P is given for courses where you successfully complete the requirements of the course and a letter grade is not appropriate. Examples of such courses include internships and other field experiences. If you register for such a course and do not complete the requirements, a grade of F will be given.

Credits you earn at another institution that are accepted towards your degree at Shippensburg are indicated with a grade of TR. See the *Transfer Credit* section for further details.

Credits earned with grades of P or TR will be counted towards the total number of credits required for your degree, but they are not used in calculating your QPA.

A grade of N indicates you have audited a class. When you audit, you can attend class and participate in class activities, but you do not receive academic credit. You may audit a course by receiving the written permission of the instructor and approval of your dean on an audit form. This form must be returned to the Registrar's Office during the first week of the semester. You must schedule and pay the regular fee for any courses you audit, and you may not receive credit or a grade for these courses at a later date.

W grades indicate courses from which you withdrew. Further information may be found in the section *Withdrawal from a Class*.

Academic Progress and Standing

Your progress in each class is regularly evaluated by the course instructor. Instructors schedule office hours to allow you to confer regarding academic achievements or particular problems with course work. At the end of each semester a final grade is recorded on your permanent record for each course taken.

Full-Time Status

Nine credit hours per semester is considered a full-time load for a graduate student, with 15 credit hours as the maximum for which a full-time graduate student may register per semester. Students taking less than 9 credit hours are considered part-time.

Issuance of Grades

In accordance with the Family Educational Rights and Privacy Act, commonly known as the Buckley Amendment, students are provided with privacy safeguards of their educational records. The university issues reports of progress including grades, written evaluations, and letters of warning directly to the student. You may have access to all information pertaining to your educational records and academic status. At the end of the semester, grades will be posted on the university's secure student portal.

Grade Appeals

(I) **Introduction** – A graduate student contemplating filing a grade appeal understands that consistent with the practice of academic freedom, faculty bear responsibility for assigning course grades in accordance with professionally acceptable standards which have previously been communicated to students verbally or in writing. At the same time, students have the right to ensure grades are calculated accurately and consistently, fairly and equitably, and without discrimination.

Note: Any grade appeals or grade change requests initiated on the basis of alleged academic dishonesty shall be handled under the procedures set forth for academic dishonesty discussed later in this chapter.

(II) **Basis for Appealing a Final Course Grade** – Graduate students may appeal a final course grade assigned to them by an instructor based on one of three conditions:

- A. The course instructor miscalculated the final course grade.
- B. The course instructor committed an oversight in calculating the final course grade.
- C. The course instructor acted in an arbitrary and/or capricious manner in assigning grades to the student, including the final course grade to the student.

A discriminatory, arbitrary, and/or capricious manner in assigning grades is defined as follows:

1. The instructor assigned a course grade to a student on some basis other than performance in the course;
2. The instructor assigned a course grade to a student by resorting to unreasonable standards different from those which were applied to other students in that course; or
3. The instructor assigned a course grade to a student in a manner that represented a substantial, unreasonable, and unannounced departure from the instructor's previously articulated standards.

(III) **Selection and Composition of the Academic Appeals Committee**

- A. **Composition of the Academic Appeals Committee** – The Academic Appeals Committee of the department or program shall consist of a minimum of three regular tenure track faculty members in the department or program (excluding the department chairperson or program director) and an equal number of students who are majors in the program, with a faculty member and student serving as co-chairs. In the event a faculty or student member of the Academic Appeals Committee is a party in a grade appeal an alternate previously selected shall serve in his or her place.
- B. **Selection of Academic Appeals Committee Members** – Within the first week of the fall semester, each academic department or program shall elect at least three faculty members and one faculty member alternate to serve on the Academic Appeals Committee for the academic year and designate three graduate students and one graduate alternate enrolled in the academic program to serve on the Academic Appeals Committee. Each academic department or program shall develop a standard process for selecting student members for the Academic Appeals Committee. By the end of the first full week of the fall semester, the names of the faculty and student members of the Academic Appeals Committee and alternates selected for each academic year shall then be forwarded to the graduate dean's office. In the event a program lacks sufficient faculty to staff the Academic Appeals Committee and provide a faculty alternate member it shall notify the dean of the college in which the program is located. The dean's office shall provide assistance in identifying a suitable pool of faculty from the college to staff the Academic Appeals Committee and provide an alternate member for the committee if the need should arise.

(IV) **Timetable and Procedures for the Grade Appeal Process** – Compliance with all timelines set forth in this policy is required.

A student may initiate a grade appeal any time after receiving a final grade in a course. Grade appeals, however, cannot be initiated after thirty (30) calendar days following the onset of the next regular (fall or spring) academic semester. Should the deadline for completing a step in the grade appeal process set forth below fall on a day that the university is not open for business that deadline shall be moved to the next date the university is open for business.

In the event a faculty member, department chairperson, or program director (or chair of the department's Professional Affairs Committee if necessary) fails to comply with the timelines or procedures set forth in this policy, the student shall have the right to appeal to the dean of the college in which the appeal has arisen. If the dean shall determine the student's rights under this policy have been violated he or she shall direct the department to schedule the Formal Grade Appeal Hearing in a timely fashion consistent with the intent of the policy.

A. Meeting with the Faculty Member Assigning the Final Course Grade – Following notification of a final grade assigned in a course a student disagreeing with a final course grade shall meet informally with the course instructor in an effort to resolve the matter prior to resorting to the formal appeal process.* This informal meeting between the student and the faculty member assigning the disputed grade shall occur no later than thirty (30) calendar days following the beginning of the next regular (fall or spring) academic semester.** If the faculty member finds in the student's favor, a grade change will be sent to the Registrar's Office after the program chair has signed the grade change form. A copy will be sent to the student. However, if the faculty member decides the grade as given was correct, the student will be notified in writing within seven (7) calendar days. Students who are not satisfied with the results may initiate a formal appeal of the final grade assigned in the course, as outlined below.

**In the event the faculty member assigning the final grade in the course is no longer an employee of Shippensburg University the student desiring to appeal a course grade shall meet with the department chairperson or program director to establish procedures consistent with this policy and past practice for entertaining the desired grade appeal.*

*** Note: Shippensburg University policy permits faculty members to change grades if there has been a miscalculation or oversight in grading, but not on the basis of additional student work or revision of previously accepted work.*

B. Initiating a Formal Grade Appeal – Students wishing to formally appeal a final course grade based on the factors listed in Section II. Basis for Appealing a Final Course Grade, must file a written appeal with the department chairperson or program director of the academic program home to the course whose grade they are seeking to appeal no later than thirty (30) calendar days from the first full day that classes meet of the semester following the semester in which the final course grade was assigned. Appeals may not be filed electronically. Failure to meet the deadline for formally filing a grade appeal shall result in the forfeiture of a student's appeal rights.*** A student wishing to pursue a grade appeal shall by this date submit to the department chairperson or program director (or chair of the department's Professional Affairs Committee in the event that the student is appealing a grade assigned by the department chairperson or program director) the completed grade appeal form, signed and dated, and supporting documentation which shall set forth the basis for the appeal and the desired resolution. Appeals from the Spring semester and Summer terms shall be filed no later than thirty (30) calendar days from the first day of the fall semester. An undergraduate grade appeal form may be obtained in the department office of the major/program where the appeal is filed or from the graduate dean's office. Formal Grade Appeals may not be filed electronically.

****Note: Both the informal attempt at resolving the disputed grade with the faculty member assigning such grade and the formal initiation of a formal grade appeal must be completed no later than thirty (30) calendar days from the first full day that classes meet of the semester following the semester in which the final course grade was assigned.*

C. Meeting with Department Chairperson or Program Director – Within ten (10) calendar days of receiving a completed grade appeal form, the program chairperson shall meet individually and/or jointly, if useful, with the student and the faculty member to discuss the disputed grade in an effort to mediate an amicable resolution to disagreement over the final grade assigned. Such meeting(s) may occur in person or via conference call if necessary. The mediated result must be given in writing to both the student and faculty member. The department chairperson or program director will notify the faculty member a formal appeal has been filed.

D. Formal Program Grade Appeal Hearing – If the student finds the mediated effort fails to address his or her concerns or achieve the desired results, he or she must notify the department chairperson or program director in writing within fourteen (14) calendar days of the meeting with the program chairperson (or designee) of his or her desire to continue on to the formal grade appeal hearing before the Academic Appeals Committee of the program. Failure to meet this fourteen (14) day deadline for proceeding with the formal grade appeal shall result in the forfeiture of a student's appeal rights, except as noted in Section IV.

1. *Scheduling of the Academic Appeals Hearing* – Upon notification by the student of his or her desire to continue with the appeal, the Academic Appeals Committee shall have ten (10) calendar days to conduct a hearing on the matter and to issue its findings and recommendations.

2. An equal number of students and faculty, but in no case fewer than four members, shall be present at an Appeals Hearing.

3. *Conduct of the Academic Appeals Hearing* – The chairpersons of the Academic Appeals Committee shall have sole responsibility for the conduct of the hearing. Prior to the hearing the student shall submit to the committee a written statement setting forth the issue(s) in the dispute and the desired resolution. Only the student and the faculty member in the dispute have the right to attend the hearing. Both the student and faculty member involved in the grade appeal shall have the right to be present during the grade appeal hearing itself. Both the student and the faculty member have the right to introduce materials into the hearing that are directly relevant to the assignment of the final grade in the course, including such items as:

- Course syllabi as given to the student
- Graded assignments such as, but not limited to, journals, research papers, group projects, examinations
- Other material relevant to the determination of the student's final course grade

E. Decision of the Academic Appeals Committee – Only the actual members of the graduate Academic Appeals Committee shall be present during the discussion and deliberations on the outcome of the student's grade appeal. The Academic Appeals Committee's deliberations shall be viewed as confidential and no transcripts, notes, or records shall be made regarding their discussion other than a record of their final decision. The committee has the power to decide the outcome of the final grade dispute by simple majority vote taken by secret ballot. A tie vote upholds the faculty member's decision in the case. If the committee sustains the appeal (i.e., rules in favor of the student) a grade change form will be sent to the Registrar's Office after being signed by the program chair. With the exception of the grade, no part of these proceedings will become part of the student's official academic record. In addition, no part of these proceedings will become part of the faculty member's record or file. The evidence, proceedings, and the final decision of the Academic Appeals Committee shall remain confidential.

(V) **Request for Reconsideration** – A student whose grade appeal has been denied may file a written request for reconsideration within seven (7) calendar days with the appropriate academic dean of the college in which the academic program is housed upon the following grounds:

- A demonstration of substantial procedural irregularities or inequities in the conduct of the hearing.
- The student provides substantial new evidence that was not available at the time of the hearing that would have had a bearing on the outcome of the appeal.
- The student is able to demonstrate that the Academic Appeals Committee's decision was erroneous or unfair.

In the absence of a written request for reconsideration of the committee's decision filed with the appropriate academic dean in the college wherein the appeal arose within the specified seven (7) day period, the committee's initial findings and action on the appeal filed shall be final.

(VI) **Reconsideration of the Academic Appeals Committee**

Determination – Within seven (7) calendar days of the **request for reconsideration**, the dean shall determine whether a compelling reason has been presented for setting aside the initial decision of the Academic Appeals Committee. If the dean finds a compelling reason exists to take such action he or she may direct the committee to reconsider their findings and determination or take other appropriate action consistent with the guidelines.

Upon direction from the academic dean of the college in which the grade appeal arose, the Academic Appeals Committee shall have ten (10) calendar days to reconvene and reconsider their initial decision on the grade appeal. The committee in undertaking such review and reconsideration shall examine and take into account the concerns raised by the dean.

Following review and reconsideration by the Grade Appeals Committee, the decision of the grade appeals committee shall be final.

Minimum Academic Standards

As a graduate student at Shippensburg University, you are expected to maintain satisfactory academic standing, which requires a cumulative QPA of 3.0 (B) or better in your total program of courses. If your cumulative QPA drops below 3.0 or you earn one C grade in a graduate course, you will be placed on academic probation.

Students on probation must raise their QPA to 3.0 by the end of the next semester (or full summer term) in which they register. An additional probationary semester may be granted at the discretion of the college dean.

If you fail to meet the conditions of academic probation you are subject to dismissal.

Some programs may require undergraduate courses be taken while a student is enrolled in a graduate program. In this event, students must follow the standards for undergraduate courses that have been determined by the department, and the university will follow those standards for dismissal when appropriate.

In addition, some programs may require higher standards than listed above because of limitations imposed by accreditation agencies and societies. Such requirements are provided by departments administering these programs.

Dismissal for C Grades

You may earn only one C grade in any graduate course taken at Shippensburg University. This includes any courses that have been repeated and replaced with a higher grade. If you earn two C grades you will be dismissed from the university.

A C grade earned at Shippensburg University may not be made up at another institution of higher learning for the same course.

Dismissal for F Grades

If you earn an F grade in any graduate course taken at Shippensburg University, you will be dismissed from the university.

An F grade earned at Shippensburg University may not be made up at another institution of higher learning for the same course.

Notice and Appeal

If you are academically dismissed you will be notified in writing by the Registrar's Office. You may appeal your dismissal by writing a letter to your college dean (with a copy to your department chair) by the date indicated in the dismissal letter. All appeals will be considered by the Academic Review Committee.

Readmission of Dismissed Students

If you are dismissed for academic reasons, you may not apply for readmission to the university for at least one calendar year following your dismissal. Students who are dismissed may not take classes as a non-degree graduate student and may not apply for admission to a different graduate degree program at Shippensburg.

Students who have had their provisional or conditional admission terminated may not apply for readmission to the university for at least one calendar year. Applicants who have been denied admission to a degree program may take classes as a non-degree student with the permission of the academic department offering the course(s) on a course-by-course basis.

To apply for readmission, you must submit the appropriate application form to the Registrar's Office with the regular application fee. Readmission is never guaranteed following academic dismissal. It may only be granted if you present compelling evidence of some fundamental change that will allow you to perform academically at the level needed to graduate.

Earning Academic Credits

You may earn graduate academic credits at Shippensburg University in several ways: by taking normal course work at the university, by working on internships, through independent study projects, and by taking courses at other accredited institutions for transfer back to Shippensburg University.

Registering for Classes

The normal semester hour workload for graduate students varies between 9 and 15 credit hours. Students with less than 9 credit hours are classified as part-time.

Current and newly admitted graduate students may register for classes at the university online during the registration period held each semester for the next semester.

If you have an outstanding obligation to the university, a hold may be placed on your account and you will not be permitted to schedule. Reasons for holds include but are not limited to: unpaid tuition or fees, library fines, and final transcripts not submitted. It is your responsibility to satisfy the obligation with the office that placed the hold before you will be allowed to schedule.

Satisfying Your Bill

It is the policy of Shippensburg University that students who fail to make appropriate, acceptable payment arrangements by the published deadline will have their semester schedule canceled.

When a schedule is canceled, the student may attempt to reschedule in the Registrar's Office, subject to class availability. Payment is required at the time of rescheduling and a late fee will be charged.

Students who have not registered for class(es) by the end of the W grade period will not receive any credit or grades for the course(s). Payment cannot be made and a grade retroactively assigned.

Dual-Level (400) Courses

Courses with numbers from 400 to 499 are open to graduate and advanced undergraduate students. Graduate students enrolled in 400-level courses are expected to meet the customary standards appropriate to graduate-level studies. These standards are reflected in the specific requirements found in syllabi for each of the 400-level courses. A maximum of 12 semester hour credits of 400-level courses may be applied to the master's degree requirements.

Undergraduate Courses

Graduate students may take undergraduate courses to make up deficiencies, fulfill prerequisites, or meet certification requirements. If you take an undergraduate course, it will be recorded on a separate undergraduate transcript along with the grade earned. The credits earned will not be counted towards the master's degree, and the grades are not used in calculating your graduate-level quality point average.

Withdrawal from a Class

Courses may be added or dropped without penalty or record notation during the official schedule adjustment period held at the beginning of the semester. Dates for this schedule adjustment period will be announced by the Registrar's Office. The drop period will extend to the sixth calendar day in a typical semester and the add period will extend to the seventh calendar day. Normally this means drop day extends to the first Saturday of the semester and add day to the first Sunday.

You may withdraw from a class through the tenth week of the semester. If you have scheduled more than one course, you may withdraw online during this period. Requests for withdrawals from your final course of the term must be initiated through the Registrar's Office. Following the initial schedule adjustment period, any courses from which you withdraw will remain on your academic record and will be assigned a grade of W. If you withdraw after the beginning of the eleventh week of the semester you will receive an F grade. You may not withdraw from a course in which you have been accused of or found guilty of academic dishonesty and have been assigned the penalty of an F grade for the course, according to the Academic Dishonesty policy.

You may be allowed to withdraw from all your classes with grades of W after the normal withdrawal period if you provide to your college dean clear medical evidence you are unable to continue your course work. It will be the determination of the dean whether this evidence is substantial enough to merit a medical withdrawal. Notification of a medical withdrawal must be received by the academic dean prior to the end of the current semester. Medical withdrawals are not permitted after the semester ends. If you receive a medical withdrawal, you will be eligible for a refund only if your withdrawal occurs within the time period normally allowed for refunds.

Students enrolled in the JCJC weekend program must notify the Registrar's Office they are withdrawing by the Friday following the first weekend of classes to be eligible for a refund. Withdrawals that occur after that time will not be eligible for a refund.

Independent Study

Shippensburg University affords opportunity to deserving and capable graduate students to engage in independent study related to their major field, a supporting area, or specialized interest. This program is highly individualized, related entirely to the student's preparation and interest and the overall appropriateness of study as judged by the department and college dean.

Independent study must include some new experience of inquiry, evaluation, and/or creative activity. This experience must be one that is not available through an established course, including a course by appointment.

To be selected and approved for an independent study project you should have a cumulative QPA of at least 3.0. Your project must be agreed to by the faculty member you would like to work with and then approved by your department chair and academic dean as well as the faculty member's chair and dean. Final approval is required from the Dean of Graduate Studies and the Provost and Vice President for Academic Affairs. You must register for the independent study project in the semester for which it is approved.

The acceptance of independent study students shall be voluntary on the part of the faculty member; however, when such students are accepted, at least five hours of faculty time per credit offered shall be made available upon request of each student. This time shall be outside the periods already allocated by the faculty member to classroom and office commitments.

In some unusual cases it is possible for independent study to span several semesters if the department chair(s) and college dean(s) are convinced of the need. A special designation by the dean will indicate approval for continuation of the independent study. A grade will be given during the semester of its completion only. At the time a grade is given, there should be a one-page written record of the completion and the evaluation of the independent study project prepared and signed by both the student and the faculty member. A copy should be placed in the college dean's office and, if desired, in the department office.

An independent study course may not be used to repeat or replace a course in which a grade of F was earned.

Individualized Instruction

In some cases, you may be able to earn credit for a course during a semester in which the course is not offered. If a faculty member is willing to work with you on an individual basis, you may apply for individualized instruction. These courses are generally restricted to students who have completed a substantial portion of their degree program and who need the particular course to complete their degree requirements.

Application forms for individualized instruction are available in the Registrar's Office. Your course must be agreed to by the faculty member you would like to work with and then approved by your department chair and college dean as well as the faculty member's chair and dean. Final approval is required from the Dean of Graduate Studies and the Provost and Vice President for Academic Affairs.

Internships

Experiential learning in the form of internships and field experiences is available to graduate students in many areas of study. You should contact your academic advisor or department chair for information regarding these academic opportunities.

To register for an internship at the graduate level, you must be enrolled in a graduate degree program at Shippensburg University and have a cumulative QPA of at least 3.0. The maximum credit for a graduate internship is six credit hours. Internship experiences are graded on a pass-fail basis only.

Internships must have the approval of your advisor, department chair, and college dean. When an internship is approved, you must schedule the appropriate number of credit hours and pay all course fees.

In programs that include clinical components, practicums, and/or internships, each student's effectiveness and suitability for the program will be given a broad-based evaluation by faculty and/or supervisors. Final decisions regarding continuance of studies will be predicated on a combination of factors such as demonstrated clinical competence, personality factors, and other relevant issues in addition to course grades.

Repeating Graduate Courses

Students may repeat any course taken previously, regardless of letter grade. Permission from the academic department must be obtained before a course may be repeated. Graduate students are limited to a total of two repeats where the most recent grade of the course will be used in the QPA calculation, regardless of whether that grade is higher or lower. A single course repeat for grade improvement is limited to one time.

If you repeat a course, only the most recent grade will be used in calculating your cumulative QPA. If you repeat a passed course and fail, you will lose both the quality points and the credits you had previously earned.

A C or F grade earned at Shippensburg University may not be made up at another institution of higher learning for the same course. Independent study or individualized instruction may not be used to repeat a course.

Transfer Credit

In order to meet the needs of individual students who are not transfer students, specialized work at other institutions may be recommended to a maximum of nine credit hours. If you are admitted to Shippensburg's graduate program and wish to take graduate courses elsewhere for transfer credit after starting your program, you must receive prior approval from your advisor and from the Dean of Graduate Studies in order to insure transfer credit can be granted. A maximum of nine semester hour credits of graduate work earned at another institution will be accepted provided the courses are appropriate for your program at Shippensburg University, and the credits are received on an official transcript with grades of B or higher. Credits transferred to a Shippensburg University master's degree program from other institutions must not have been applied to a previously earned bachelor's degree.

Grades earned in courses transferred from other colleges and universities are not included in determining your quality point average in the graduate program at Shippensburg.

Credit earned more than five years prior to the date you begin your graduate program at Shippensburg University does not qualify for transfer credit.

Graduation Requirements

As a fulfillment of its obligation to higher education, Shippensburg University has established high standards of achievement and promise for its students which must be met without question before graduation is approved by the faculty or the administration of the university. Specific requirements relating to individual master's degree programs may be found in the chapter *University Curricula*.

General requirements for the master's degree include a cumulative QPA of 3.0, the completion of all course work, the completion of any comprehensive requirement (including thesis), and the resolution of all outstanding judicial and/or academic dishonesty matters. Additional graduation requirements may also be required by academic departments.

Applications for graduation must be submitted to the Registrar's Office by the end of the second week of your final term.

Commencement ceremonies are generally held on Friday evening at the end of final examination week. A graduate of the university is expected to participate in the commencement ceremonies at the end of the semester in which they complete all requirements for graduation. Students who meet those requirements in August have the option to participate in either the preceding spring commencement ceremony or the following winter commencement ceremony. Students who, at the completion of either the fall or spring semester, are within six (6) credits of completing their degree requirements may apply to participate in the preceding semester's commencement ceremony. Applications to participate in a ceremony prior to completion of all requirements are to be made to the dean of the student's college

with final action by the Provost's Office. Approval will be granted only when warranted by unusual or exceptional circumstances, such as a student who will be studying abroad and unable to attend the appropriate ceremony.

Time Limit

All course work and research for the master's degree must be completed within a seven-year period beginning the semester you matriculate in the degree program. Extensions must be requested through your department chair and approved by your college dean and the Dean of Graduate Studies.

Advisement

When you are admitted to graduate study, the chair of your major department (or a designated representative) will assign you a program advisor. It is your responsibility to arrange an appointment with the program advisor as soon as possible to outline your program, taking into consideration previous work and your individual objectives. You should follow the curriculum as outlined for your field of specialization unless an adjustment is approved on the basis of previous work or experience. Although the program advisor will assist you in planning your program, you are responsible for knowing the curriculum requirements and seeing these requirements are met.

Admission to Candidacy

Some academic departments require you to apply for and be admitted to candidacy in order to complete the program of study leading to the master's degree. The candidacy process is used to review your progress and compliance with academic policies.

Departments requiring candidacy may establish their own guidelines. Contact your department for further information.

Research Requirement

All master's degree programs must require an appropriate research and/or statistics course.

Comprehensive Requirement

The completion of a master's degree must have an evaluation or a culminating experience to be determined by each academic discipline. This requirement could be in the nature of a comprehensive written examination, an oral examination, an interview, proof of competencies being met in a program, or other similar evaluation activity that demonstrates mastery of subject area.

Double Counting

The concept of "double counting" credits for two different master's degrees is not encouraged. In certain cases, however, an academic department may recommend a maximum of nine credits earned in one master's degree at Shippensburg be transferred to a second master's degree at Shippensburg University.

Dual Graduate Degrees

For graduate students completing dual graduate degrees simultaneously, no more than 9 credits can be transferred in from another institution or double counted from another Shippensburg University graduate program.

Thesis

Before registering for thesis you should confer with the department chair concerning the appointment of your research advisor and the other members of your thesis committee. The names of the advisor and committee members must be submitted to the Registrar's Office for approval at the time you register for the thesis. Registration for the thesis may be completed at the beginning of any semester or summer session. In planning work on your thesis, you should take into consideration faculty members are not always on campus during the summer sessions.

You may register for Thesis I and Thesis II concurrently or in different semesters. A temporary grade of Q will be recorded for a thesis when the work is not completed at the end of the semester. Only when the thesis is completed can a regular letter grade be recorded. Under no conditions may a regular letter grade be submitted unless the thesis is completed and signed by all thesis committee members.

You must submit the thesis to the Registrar's Office in final approved form within one calendar year from the date you register for Thesis II. Otherwise, you must register again for Thesis II and pay the appropriate course fees. If you do not complete the thesis within the required time and do not re-register for Thesis II, grades of F will be recorded for both Thesis I and Thesis II.

When registering for thesis credit, you must submit the Arrangements for Completing the Thesis Requirement for the Master's Degree form. For additional information, contact the Registrar's Office.

Academic Dishonesty

It is the policy of Shippensburg University to expect academic honesty. Students who commit breaches of academic honesty will be subject to the various sanctions outlined in this section. This policy applies to all students enrolled at Shippensburg during and after their time of enrollment.

Definition

As used in this policy, the term academic dishonesty means deceit or misrepresentation in attempting (successfully or unsuccessfully) to influence the grading process or to obtain academic credit by a means not authorized by the course instructor or university policy. A breach of academic honesty is committed by students who give, as well as receive, unauthorized assistance in course and laboratory work and/or who purposefully evade, or assist other students in evading, the university's policy against academic dishonesty.

Academic dishonesty includes but is not limited to:

- Bribing, or attempting to bribe, faculty or staff personnel in order to attain an unfair academic advantage.
- Possessing course examination materials prior to administration of the examination by the instructor without the instructor's consent.
- Using unauthorized materials or devices such as crib notes during an examination.
- Providing and/or receiving unauthorized assistance during an examination.
- Using a substitute to take an examination or course.
- Misusing transcripts, records, or identification, such as forgery or alteration of transcripts.
- Allowing others to conduct research for you or prepare your work without advance authorization from the instructor, including, but not limited to, the services of commercial term paper companies.
- Plagiarism, as the term is defined in the section *Plagiarism*.
- Intentionally and without authorization falsifying or inventing any information or citation in an academic exercise, such as making up data in an experiment or observation.

The preceding list is only for purposes of illustration. Other forms of inappropriate conduct may also be subject to charges of academic dishonesty.

Resolution of Charges

When an instance of academic dishonesty is alleged, the issue should be resolved on an informal basis between the student and faculty member. If an informal resolution cannot be achieved, a formal process of deciding culpability and assessing sanctions will be followed. If the student has committed a previous violation, the formal process must be followed.

Informal Resolution

A faculty member who obtains information that a student has been dishonest should act promptly to resolve the issue. The faculty member should first contact the Dean of Students to determine if this is the first violation for the student. If the suspected incident is not the first, the offense must be handled through the formal resolution process.

For a first violation, the faculty member may attempt to resolve the issue informally with the maximum penalty to be a grade of F in the course. If the faculty member feels the offense warrants a more severe penalty, the matter must be resolved through the formal process.

For the matter to be resolved informally, the faculty member must meet with the student and present any evidence of a violation. The student will be given an opportunity to provide an explanation after hearing the evidence. If the faculty member determines a violation has occurred, he/she will complete the Settlement of a Charge of Academic Dishonesty form. This form will include the penalty that the faculty member will apply.

The form is then given to the student, who has 72 hours to seek advice and decide whether to sign. If the student agrees to accept the penalty, he/she must sign in the presence of the faculty member. The faculty member will then implement the accepted penalty and forward the settlement form to the Dean of Students. The form will be kept on records for five years and may be used if the student is accused of another academic dishonesty offense or any other violation of the Student Code of Conduct. The information will only be used for internal purposes and will not be disclosed outside the university.

If the student refuses to sign, the faculty member may pursue the matter through the formal resolution process.

Formal Resolution

An allegation of academic dishonesty must be resolved through a formal process if the student disputes the charges or does not accept the penalty proposed by the faculty member. The formal process must also be followed if the incident is not the student's first violation.

In the formal process, an allegation of academic dishonesty will be treated as a violation of the Student Code of Conduct. The charges will be resolved through the Judicial Process administered by the Dean of Students. The Dean of Students and an academic administrator designated by the Provost will consult to determine if sufficient information is present to warrant further action.

If there is sufficient information to proceed with the complaint, the steps outlined in the "Student Code of Conduct and Judicial Process" section of the student handbook *Swatoney* will be followed. Academic dishonesty cases must be heard by the university judicial hearing board; the judicial officer option is not available for these cases. Appeals of academic dishonesty decisions will be handled by the Vice President for Student Affairs and the Provost.

Penalties

The Student Code of Conduct contains a list of sanctions, which may be imposed for violations. In addition to those in the Code of Conduct, the following two sanctions may be imposed against students found to have committed acts of academic dishonesty:

- **Grade Reduction**
The grade for a particular unit of work or for the entire course may be reduced.
- **Imposition of a Failing (F) Grade**
The student may receive an F for the course.

These two penalties may be imposed through the informal settlement process or the formal hearing process. More severe penalties, including suspension or expulsion, may only be imposed through the formal process. Additional stipulations may be attached to any sanction.

Plagiarism

Plagiarism is a form of academic dishonesty. Shippensburg University will not tolerate plagiarism, and the faculty will make all reasonable efforts to discourage it.

Plagiarism is your unacknowledged use of another writer's words or specific facts or propositions or materials in your own writing. When other writers' words or materials (even short phrases or specific terminology) are used, you should put these words, phrases or sentences inside quotation marks (or else indent and single-space more extended quotations), and you should then cite the source of the quotation either in the text of your writing or in footnotes. Failure to do so may be considered plagiarism. When the propositions of another writer are restated in your own words (paraphrased), you should also indicate the source of the paraphrased material in your own text or in footnotes. Comparable citation should be made for borrowings from media other than printed texts, such as lectures, interviews, broadcast information, or computer programs.

The more flagrant form of plagiarism is your submission of an entire paper or computer program or lab report (or a substantial portion of a longer work) written by someone else and presented as your own work. This can include material obtained from a friend, from a fraternity or sorority file, from duplicated student writings used for analysis in other writing courses, from commercial sources, or from published materials. Another common form of plagiarism is the unacknowledged borrowing from other sources (either words or propositions) and the integration of such material in your own work.

Certain situations may cause conscientious students to fear plagiarizing when they are not really plagiarizing. These include:

Improper format for documentation

Improper documentation is not plagiarism but a technical academic problem. Different professors, different academic departments, and different academic disciplines have various ways of documenting borrowed materials. Each professor should make clear to you how he/she wants borrowed materials documented for given writing or programming assignments. You should make every effort to understand precisely what your professor expects regarding documentation. As long as you make a clear effort to document all borrowed materials, you are not plagiarizing.

Use of supplemental individualized instruction on an assignment

Various tutorial resources are available at the university, including a writing center and assistance from faculty who assist students during the process of composing a paper. When you seek these kinds of legitimate academic assistance, you are not plagiarizing. In fact, you are making an extraordinary attempt to improve your writing and academic performance. In such cases, you should inform your instructor of the fact you have sought assistance from a given source on an assignment. This acknowledgement should be stated on the cover sheet of your paper or program. The prohibition against plagiarism should in no way inhibit or discourage you from seeking legitimate supplemental instruction in developing an assignment.

Use of a proofreader

If you are unsure of your ability to produce finished drafts that are virtually error-free, you may use such resources as hired typists, more editorially proficient friends, tutors, or writing center personnel to insure your finished papers are relatively error-free. You should indicate on the title page the fact your paper was typed and/or proofread by someone else. The prohibition against plagiarism should in no way inhibit or discourage you from using available reference and/or human editorial resources in seeking to produce an error-free final copy of a paper.

In summary, plagiarism is the unacknowledged borrowing of another writer's, speaker's or programmer's words and/or propositions. To avoid plagiarism, you should acknowledge assistance received in developing and/or proofreading a paper. If you need or desire such assistance, you should not be discouraged from seeking it because of the university policy on plagiarism.

Student Matters

This chapter concerns some of the non-academic areas of graduate student life at Shippensburg University, including fees, student services, and financial assistance.

Tuition and Fees

Fees and due dates are subject to change.

Summary of Costs

The following are per credit costs for a graduate student who is a Pennsylvania resident (2012-13 costs).

Graduate Tuition	\$429
Technology Tuition Fee	\$21
Student Union Fee	\$22
Educational Services Fee	\$67
Health Services Fee	\$13
Total	\$552

Payment of Fees

Fees are payable in advance as indicated below. Payment by check, cash or money order may be made directly to the Student Accounts Office. Unless otherwise indicated, all checks shall be made payable to Shippensburg University. Payments by electronic check and credit card (Master Card, Discover, American Express) may also be made on line through the Student Information System at *my.ship.edu*. Credit card payments are subject to a 2.5 percent convenience fee. There is no charge for payment by e-check. *Do not send cash by mail.*

Semester	Payments Due
First	early August
Second	mid-December

The above dates are subject to change.

Delinquent Accounts

If your account is not paid in full, you will not be permitted to enroll for classes, graduate, or receive a diploma or transcript. Accounts delinquent for 90 days are turned over to the Pennsylvania Attorney General for collection.

Pennsylvania Resident Tuition

A tuition fee of \$429 per credit will be charged to graduate students who are Pennsylvania residents. In-state graduate students taking undergraduate courses are also charged the grad rate of \$429 per credit.

Out-of-State Student Tuition

Graduate students whose legal residence is not in the state of Pennsylvania pay a tuition fee of \$644 per credit. Out-of-state graduate students taking undergraduate courses also pay a fee of \$644 per credit hour.

NOTE: The tuition amounts are valid only through the summer of 2013.

Fees

Semester Fees

All fees are subject to change without notice.

Technology Tuition Fee

This fee is established by the Board of Governors of the State System of Higher Education. The purposes of the technology tuition fee are: (1) to acquire, install, and maintain up-to-date and emerging technologies for the purpose of enhancing student-learning outcomes; (2) to provide equitable access to technology resources; and (3) to ensure that State System graduates are competitive in the technologically sophisticated workplace.

The technology tuition fee is not a user fee, but is instead a fee

paid by all students according to their residency status (in-state/out-of-state). Currently (2012-13), the technology tuition fee for in-state graduate students is \$21 per credit and for out-of-state graduate students is \$31 per credit. The technology tuition fee is non-refundable.

Student Union Fee

State law and policies of the Board of Governors of the Pennsylvania State System of Higher Education require the cost of constructing the original Ceddia Union Building and its addition be paid by students enrolled at the university. This fee is applicable to all full- and part-time students, both graduate and undergraduate, during both regular semesters and summer sessions, in accordance with the following schedule established by the University Council of Trustees:

Regular Semesters

Graduate per credit \$22

Summer Sessions

Graduate per credit \$15

The Student Union Fee is refundable based on the schedule in the section *Refunds*.

Educational Services Fee

This fee provides instructional and library supplies and equipment. It is charged to all students in all semesters and sessions in accordance with the following schedule:

Regular Semesters

Graduate per credit \$67

Summer Sessions

Graduate per credit \$67

This fee is refundable according to the schedule in the section *Refunds*.

Comprehensive Health Fee

All graduate students must pay a Comprehensive Health Fee of \$13 per credit. During the summer sessions, the graduate comprehensive health fee is \$9 per credit hour.

Activities Fee

The Activities Fee is required of all graduate students attending summer sessions. The fee covers the cost of supporting student organizations in athletics, lectures, entertainment, and publications. This fee is \$14 per credit hour.

Special Fees

All fees are subject to change without notice.

Application Fee

A fee of \$40 is charged when you first apply for graduate study at Shippensburg University. The application fee is not refundable and is not credited toward course fees. A fee of \$15 is charged for non-degree applicants.

If you do not begin your graduate study within one year of being admitted, you will need to pay an additional fee to apply again.

Late Payment Fee

If you submit your semester bill payment after the bill due date, you will be subject to a late payment fee of \$100. All semester bills must be paid or cleared on line prior to the bill due date to avoid the late fee.

Graduation Fee

A fee of \$50 must be paid at the time you apply for graduation. This fee covers the cost of processing your application and preparing your diploma.

Miller Analogies Test Fee

A fee of \$75 is required of all persons who take the Miller Analogies Test.

Parking Fee

All vehicles operated by faculty, staff, and students (graduate or undergraduate) are required to be registered with the University Police and to display a current parking decal on the right rear bumper. Student parking decals (through 2012–2013 academic year):

- \$65 for the academic year
- \$15 for summer only (May through August)
- \$10 for additional vehicles

Bad Check Fee

A fee of \$35 may be charged for each paper check or electronic check that is not honored by the payee's bank for any reason.

Room and Board

Campus housing is available for graduate students during the regular semester on a "Space Availability" basis. A meal plan is available for commuting students. Housing is available during the summer terms.

Meal Plans

During the regular semester, meal plans are available which provide a certain number of meals per week in the dining halls. The 2012–2013 cost for these plans are: Admiral Plan (unlimited dining), \$2,010/semester; 19 meals/week, \$1865; 15 meals/week, \$1,655; 10 meals/week, \$1,340; 5 meals/week, \$1,105; 225 Block Plan, \$1690; 175 Block Plan, \$1,450/semester; 125 Block Plan, \$1,250/semester; and 75 Block Plan, \$980/semester. All of the above meal plans include \$250 initial flex. Meal plans may also be purchased with \$375 initial flex. Additional flex may be purchased in \$25 increments.

The flex-only meal plan is perfect for the student looking to eat the occasional meal on campus and begins at \$100 per semester. With this plan you receive flex dollars that you can spend at any dining location on campus. You can add additional flex dollars to your account at any time.

Meal plans are also available during the summer sessions. Meal plan rates are subject to change.

Summer Sessions Room and Board

Information about graduate student housing for the summer sessions can be obtained by contacting the Dean of Students Office at 477-1164. The following rates were in effect for the 2012 summer sessions:

Double occupancy with 10 meal plan—\$570 for 3 weeks, \$950 for 5 weeks. Double occupancy with 15 meal plan—\$627 for 3 weeks, \$1,045 for 5 weeks. Double occupancy with 19 meal plan—\$666 for 3 weeks, \$1,110 for 5 weeks.

Refunds

A graduate student is considered to be in class attendance up to the date on which a written notice of intent to withdraw is received in the Registrar's Office. This date becomes the official date of withdrawal when calculating adjustments of tuition and fees and the return of federal financial aid.

During the academic year the following schedule determines the amount of refund or reduction in tuition and fees to be granted in the event of withdrawal:

Through the drop period	100 percent
End of drop period through 2nd week	80 percent
3rd week	60 percent
4th week	50 percent
5th week	40 percent
Over 5 weeks	0 percent

There is no refund or reduction of charges for individual courses withdrawn after the end of the drop period. Refunds are only issued for full semester withdrawals. Students enrolled in late starting courses may be subject to an alternate refund schedule. Details may be obtained at ship.edu/Student_Accounts/ under Refund Schedule.

The most current summer session refund dates may be found at ship.edu/Student_Accounts/ under Summer Tuition.

The refund schedules assume the student account is paid in full and the percentages are not being applied to a partial payment of tuition. The application fee, technology fee and advance deposits are non-refundable.

If a student is a recipient of federal Title IV financial aid, the amount of federal aid that the student earned up to the date of withdrawal is calculated using a specific formula. If the student received less aid than the amount earned, the student may receive those funds as a post-withdrawal disbursement. If the student received more aid than the amount earned, the excess funds must be returned by the school and/or the student. Refunds to those programs are required by federal law to be the first priority and must be returned in the following order:

1. Federal Unsubsidized Stafford loan
2. Federal Subsidized Stafford loan
3. Federal Perkins loan
4. Federal Parent PLUS loan
5. Federal Pell Grant
6. ACG Grant
7. SMART Grant
8. Federal SEOG
9. TEACH Grant

In some cases a student may owe a balance to the university after Title IV aid is returned.

More information concerning the detailed application of the refund policy can be obtained by visiting the Student Accounts link in the Student Life section of the Shippensburg University website, www.ship.edu.

Refund policies are subject to change by the Pennsylvania State System of Higher Education.

Financial Assistance

Shippensburg University provides financial assistance to graduate students through graduate assistantships, student payroll positions, student life graduate assistantships, graduate residence director appointments, and student loans.

Graduate Assistantships

Graduate assistant appointments provide opportunities to participate in professionally-related activities with faculty and administrators. These assignments can extend learning experiences beyond the classroom and enhance professional development.

Graduate assistant appointments are awarded on a competitive basis. They provide a tuition waiver as well as compensation for work performed.

Eligibility and Academic Load

To be eligible to receive a graduate assistant appointment, a student must be admitted into a graduate degree program. Non-degree students, or those working towards certification without a degree, are not eligible. Provisionally-admitted students are not permitted to work as graduate assistants during the provisional semester(s). Conditionally-admitted students may work as graduate assistants with the permission of their academic department.

Graduate assistants must maintain at least a 3.0 cumulative QPA and must not have earned more than two grades of C or less in any course taken while a graduate student.

In most cases, students may not hold graduate assistant positions for more than two years, defined for this purpose as four regular semesters and one summer session. Students in degree programs that require more than 33 credits may hold positions for more than two years.

Students may not be appointed as graduate assistants while working towards their second Shippensburg University master's degree.

Exceptions to these eligibility requirements may only be made upon written recommendation of the student's academic department, endorsed by the student's college dean, and approved by of the Dean of Graduate Studies.

During the academic year, all full-time graduate assistants must register for and complete nine credit hours of graduate course work each semester. With prior approval of supervisors, temporary part-time GA status may be available for a semester. Part-time GAs must register for and complete at least six graduate credits. Part-time status may also be approved for GAs enrolled in seven or eight graduate credits. The tuition waiver and required number of work hours will be prorated based on the number of credits. The two-year time limit will apply to GAs who have been approved for temporary part-time status. During the summer sessions, all graduate assistants must register for and complete one graduate course (3 or 4 credits) during one of the summer sessions.

Exceptions to academic load requirements are considered on a case-by-case basis by the Graduate Dean.

Application Procedures

Apply online at ship.edu/graduate and navigate to Financial Assistance.

Applications will be accepted as soon as positions are posted online. Appointments may be made through the end of the sixth week of the semester as long as there is a position vacant (see also *Late Appointments*).

Appointment Process

Available graduate assistantships and student payroll positions (SPPs) administered by the Graduate Dean are posted online. We recommend applicants contact supervisors directly to request interviews. Academic departments can also help to identify potential positions.

Supervisors who hire students for graduate assistantships and student payroll positions will review the applications that have been forwarded to them and consult with academic departments to identify candidates. They may conduct interviews before making a final decision. Typically, the supervisor will make a verbal offer and ask for acceptance before making the formal recommendation for appointment.

After the appointment is submitted online by the supervisor, the Office of the Graduate Dean will verify the student's eligibility and then send an official letter of appointment to the student's Shippensburg University e-mail account. Students are then required to sign a memorandum of understanding and return it to the Office of the Graduate Dean. Also, new students workers will need to complete appropriate payroll forms in the Human Resources Office.

Tuition Waiver

When an appointment is formally made, the Student Accounts Office will be notified and instructed to process a tuition waiver for 9 graduate credits (in most cases) or a refund if tuition has been paid. Graduate assistants are responsible for all tuition above 9 graduate credits and fees (including late registration, health services, educational services, student union, and graduation). Summer assistants are eligible for a tuition waiver covering one graduate course (3 or 4 graduate credits); students are responsible for all other tuition and fees.

Exceptions to cover more than 9 graduate credits are considered on a case-by-case basis usually in situations when additional credits are required by the student's program of study.

Students having student payroll positions are not eligible for tuition waivers.

Work and Compensation

Graduate assistants are compensated for the work they do on an hourly basis. The hourly scale is determined by the Vice President for Administration and Finance.

During each semester, full-time graduate assistants are required to work 250 hours (approximately 15 hours per week). During the summer, graduate assistants are required to work 150 hours, and part-time status is not available. Students having student payroll positions are required to work the same number of hours. GAs approved for part-time GA status will be required to work the number of hours shown below:

Number of credits scheduled	Required number of hours
8	222
7	194
6	167

Graduate assistants must work at least 90 percent of the required hours in order to qualify for the tuition waiver. Assistants working less than this amount will be required to pay for a portion of tuition on the following schedule:

Hours worked	Repayment required
80 - 89 percent	10 percent of tuition
70 - 79 percent	20 percent of tuition
60 - 69 percent	30 percent of tuition
50 - 59 percent	40 percent of tuition
50 or less percent	50 percent of tuition

Benefits

With the exception of the tuition waiver and compensation for work performed (including social security and workmen's compensation payments), students in graduate assistantships and student payroll positions do NOT receive any of the benefits provided to regular university employees. They do not receive health benefits, sick leave, or any paid holidays or vacations. They are not eligible for STAFF parking stickers for their vehicles.

Late Appointments

Graduate assistants may be appointed through the end of the sixth week of a semester. Up to the end of the first week of classes, students will receive the full tuition waiver as long as they work the required number of hours.

After the first week of classes, the tuition waiver will be prorated based on the following schedule: through the end of the second week, 90 percent; third week, 80 percent; fourth week, 70 percent; fifth week, 60 percent; sixth week, 50 percent.

Students accepting a late appointment may work the full number of hours. The number of hours required (see *Work and Compensation* section above), however, will be based on the percentage of tuition received times the full number of hours. For example, a student who accepts a position during the third week of the semester will be required to work 200 hours, or 80 percent times 250 hours.

Students accepting an assistantship after the drop/add period must be registered for the appropriate number of credit hours (see *Academic Load* section above).

Changing Appointment

If an assistant would like to resign from an assistant position mid-semester in order to accept a different one, the first department must give written consent. If the department chooses not to give this permission, the student may not accept the other appointment. Assistants may not circumvent this requirement by resigning from one position and then accepting another appointment.

To give permission to change positions, the department that made the original appointment should send written authorization to the Office of the Graduate Dean.

Resignation, Dismissal, or Academic Probation

A graduate assistant may resign from a GA position during the course of a semester. Any hours worked prior to resignation must be recorded on the student payroll and paid to the student.

A student who resigns will have tuition waiver prorated based on the number of hours actually worked. For example, if a graduate assistant works 50 hours and then resigns, only 20 percent (50/250) of the tuition will be waived. The student will then be billed for the remaining 80 percent.

A student who withdraws from classes and no longer meets the academic load requirements will be dismissed from the assistantship. Compensation and tuition waiver policies are the same as those for a resignation.

At the discretion of the GA supervisor, a graduate assistant may be dismissed from a position. The GA supervisor must notify his/her supervisors (for example, the department chair, the academic dean, Vice President for Student Affairs) and the Dean of Graduate Studies in writing of the decision and the reasons for it. Compensation and tuition waiver policies are the same as those for a resignation.

It may be possible for a student to continue in a GA position while on academic probation after consulting with the student's graduate coordinator. A coordinator could decide not to support the continuation if it is felt that the competencies, skills, and requirements of the GA position cannot be met by a student on probation.

When students are unable to resolve issues related to their SPP/GA positions by talking with their supervisors, students are encouraged to contact the supervisor's supervisor. This could be the department chair, the dean, or another individual. The Graduate Dean's Office can provide this information upon request.

Student Payroll Positions

Student Payroll Positions (SPPs) are administered through the Graduate Dean's Office. Students working in SPPs earn hourly wages at the current minimum wage rate but are not eligible for tuition waivers. Priority for hiring is given to graduate students, but unfilled positions will be available to undergraduate students near the beginning of the semester. All SPPs are posted at ship.edu/Graduate/Assistantships/ and are identified in job titles as "...SPP-no tuition waiver." Appointments are awarded each semester on a competitive basis and without regard to financial need.

Students may be employed in two SPPs at the same time, or they may be employed in one GA position and one SPP at the same time. However, a student may not hold two GA positions at the same time.

Students must be in good academic standing by maintaining a QPA of at least 2.0. Graduate students must be enrolled, full-time or part-time for the academic year. Undergraduate students must be enrolled full-time for the academic year. Summer enrollment is not necessary. Students must be enrolled during the previous spring or scheduled for the upcoming fall.

Residence Directors

Residence Directors supervise the eight residence halls or apartments for students living in campus housing. General responsibilities include supervising undergraduate staff members, responding to student needs and issues, serving as an emergency on-call person, working with camps and conferences, advising student groups, assisting in hall maintenance processes, implementing programs and services, and participating in the adjudication of conduct code violations. Residence Directors also perform a variety of tasks within the Office of the Dean of Students.

Residence Directors must be enrolled in a graduate program during their period of employment. Hiring preference is given to individuals enrolled in the counseling program, with special consideration given to those with a student personnel emphasis. Previous experience working within a residence hall or some other related aspect of

student personnel work is preferred. Strong interpersonal skills, plus an interest in and an understanding of working with undergraduate students are required.

The Residence Director position is a 12-month appointment. In addition to a salary (contact the Office of the Dean of Students for specifics), Residence Directors receive a free apartment and meal plan. Additionally, Residence Directors receive a tuition waiver for six credits per semester and three credits per summer. In order to balance academic and professional success, Residence Directors are not authorized to exceed the aforementioned credit limits, thus limiting them to a maximum of 15 graduate credits per year.

Applications and additional information may be obtained by contacting the Office of the Dean of Students.

Loans

Federal Direct Stafford Loans are available to matriculated graduate students who are taking at least 6 credits per semester. In order to qualify, a student must complete the Free Application for Federal Student Aid (FAFSA) and a Federal Direct Stafford Loan application.

There are two types of Stafford Loans: subsidized and unsubsidized. The subsidized loan is interest-free while the student is in school. The student is charged interest on the unsubsidized loan while in school, and may opt to pay it as it accrues, or allow it to accrue and capitalize. Eligibility for the interest subsidy and the amount of the loan will depend upon the student's financial need (as determined by the results of the FAFSA) and other resources available to the student.

Graduate students are billed for tuition and fees at the time of registration. If the student has applied for a Federal Direct Stafford Loan to cover those charges, payment may be deferred until the loan funds arrive. The student should indicate on the tuition bill that a loan is pending, and return it to the Student Accounts Office.

Students interested in additional financial aid information should visit the Financial Aid website.

Academic Progress Requirements for Graduate Student Federal Aid

Federal regulations require graduate students make satisfactory academic progress towards the completion of a degree in order to maintain their eligibility for the following programs: Federal Stafford Loan, Federal Work Study, and Federal Perkins Loan.

At Shippensburg University, in order to make satisfactory academic progress for federal financial aid purposes, a full-time graduate student must complete 18 new credits per year and maintain a 3.0 cumulative QPA. A part-time student must meet identical minimum QPA requirements and must complete 80 percent of all attempted credits each year.

Students will be notified at the close of each spring semester if financial aid eligibility is terminated due to unsatisfactory academic progress. The student may resolve the situation by taking summer courses (without federal aid), or if extenuating circumstances exist, file an appeal to have eligibility for federal funding reinstated.

Veteran's Benefits

The university is approved for training veterans under the Montgomery G.I. Bill as administered by the Veterans Administration. For further information, contact the Dean of Students Office or go to ship.edu/veterans.

Housing

Beginning with the 2012-13 academic year, campus housing for graduate students will be provided on a "Space Availability" basis. Graduate students interested in living on campus should contact the Housing Office at (717) 477-1701.

Student Services

Office of the Graduate Dean

The Office of the Graduate Dean, located in Old Main 310, provides a number of services to graduate students including coordination of graduate assistantships. Office hours are 8:00 AM to 4:30 PM Monday through Friday during the academic year. To contact the office call (717) 477-1148.

Graduate Student Association Board

The Graduate Student Association Board was organized to promote harmonious relationships among graduate students, faculty, and administration; to provide a means of expressing to the university as a whole the needs of graduate students; and to insure the rights, privileges and responsibilities of graduate students.

Membership is automatic during the semester or session in which a graduate student is enrolled. Elections for officers are held in April with officers serving from June through May. For more information, contact the Office of Graduate Admissions or go to ship.edu/gsab.

Registrar's Office/Transcripts

You may request copies of your Shippensburg University transcripts in writing. Only three transcripts may be ordered per request. A limit of three transcripts will be mailed to the same address. The Registrar's Office reserves the right to impose a handling fee for large-volume requests. Please make your request for transcripts in one of the following ways:

1. Mail a letter or transcript request form to the Registrar's Office requesting your transcript be prepared for pick-up or sent to a specified address. The transcript request form is available at ship.edu/Registrar/Requesting_Transcripts/. Include the following information:
 - full name and student identification number—include all previous last names, if any
 - dates of attendance
 - graduation date and degree received
 - specify graduate, undergraduate, and/or non-degree courses taken
 - number of transcripts requested
 - complete mailing address transcript is to be sent (A transcript sent to yourself may be considered unofficial. Faxed transcripts are also considered unofficial.)
 - requestor's daytime telephone number and mailing address
 - your signature is required on the request (e-mail requests are unacceptable for this reason)
 - mail request to:
Registrar's Office
Shippensburg University
1871 Old Main Drive
Shippensburg, PA 17257
2. Fax a written request to (717) 477-1388 that includes all the information specified above. The request must be signed by the student.
3. Visit the Registrar's Office and complete a transcript request form.

To pick up a transcript, you must show valid photo identification.

Generally allow one week for processing transcript requests. Due to heavy volume of requests at the beginning and end of semesters, the processing time may be longer.

An unofficial transcript is sent to the student automatically following graduation. This transcript is sent after grades are verified and degrees posted.

Questions regarding this process should be directed to the Office of the Registrar, located in Old Main 111. To contact the office call (717) 477-1381.

Electronic Communication Policy

At Shippensburg University electronic mail (e-mail) offers efficient, effective, and timely communication between members of the university community. Thus e-mail is an official means of communication and the primary method for university faculty, administrators, and staff to contact all students. Students are expected to use the campus e-mail service and check their e-mail accounts on a regular basis because correspondence about administrative requirements, academic issues, public safety and health, judicial affairs, emergencies, and general matters will be sent in this manner. Much of this correspondence will be time-sensitive.

Students will be given a campus e-mail account at no cost. The account is active throughout a student's period of enrollment, including all vacation periods. Students wishing to utilize only off campus e-mail services are expected to forward their campus e-mail to that Internet provider or server. Otherwise, they are still expected to check their campus e-mail account on a regular basis. Failure to check one's campus e-mail account in a timely manner shall not be an excuse for missing deadlines or failing to meet communicated expectations.

Therefore, all students **must** do the following:

- Regularly check their accounts and read any e-mail in a timely fashion. It is preferable students read their e-mail on a daily basis but they are expected to do so at least four times per week, including all vacation and summer periods.
- Maintain their ship.edu inbox and home directory on the myShip portal located at my.ship.edu. In particular, all students are expected to ensure use of the university's computing systems and networks do not exceed current published limits, thereby interfering with one's ability to receive e-mail. All students are also expected to comply with all published policies governing computing and information networking.
- If people choose to use software to sort incoming e-mail into folders or to filter out unsolicited advertising e-mail (SPAM), they are responsible for making sure the filter rules do not accidentally delete official correspondence from the university.
- If students choose to forward e-mail from ship.edu to another e-mail server, they are responsible for making sure the e-mail is forwarded and working properly. They must also ensure their e-mail account has adequate space available to accept new messages.

Counseling Services

The University Counseling Center (UCC) offers free, confidential counseling and psychological services for a wide range of issues, from personal growth and development to mental health concerns. Services provided include individual, couples, and group counseling; crisis intervention; and psychiatric services for undergraduate and graduate students; as well as prevention and consultation services for the entire university community.

Students' more common concerns include the following: depression; anxiety; self-critical feelings; academic concerns including procrastination and time management; sleeping problems; uncertainty about future/life after college; finances; relationships with family, friends, roommates, or romantic partners; problems with body image, eating, or weight; sexual concerns; and alcohol/other drug abuse.

The UCC is accredited by the International Association of Counseling Services, Inc. UCC records are confidential, and do not become a part of students' academic records. Only with a client's written permission will information be released to anyone outside of the UCC, except as required by law. The UCC is open Monday through Friday, 8:30 AM to 5:00 PM when classes are in session. Call (717) 477-1481 or visit ship.edu/counseling_center/ for more information.

Child Care

The university offers child care through the Child and Family Center conveniently located on campus in the Grace B. Luhrs University Elementary School. The center offers developmentally appropriate curriculum, designed and led by four-year degreed teachers, as well as plenty of free play. Classes are tailored to five age ranges which include: Toddler A (12-24 months), Toddler B (24-36 months), Pre-school A (30 months-age 3), Pre-school B (ages 4-6), and School Age. Students enrolled at Shippensburg University are invited to make use of the Child and Family Center. In 2006, the center achieved NAEYC accreditation and currently holds a Keystone STARS Four-Star rating. Tuition subsidies may be available for qualified applicants. For information call 717-477-1792 or visit the Child and Family Center website at www.sufoundation.org/services/childfamilycenter.

Career Development Center

The Career Development Center (CDC), located in the Ceddia Union Building, provides students and alumni with valuable information and assistance on their job search. CDC provides resources in exploring career options, organizing job search programs such as preparing a résumé, cover letter, and interview skills.

In addition, the CDC provides students with career and employer information through their bi-weekly newsletter *Ship Career Connection*, which lists on-campus interviews with employers and graduate schools, internships, and career events. CDC maintains reference files that are disseminated to prospective employers or graduate schools upon request and a resource library.

Keeping with the CDC's commitment to meet students' schedules and needs, the CDC conducts daily walk-in hours, workshops on job search and interviews, mock interviews, outreach programs for classes and organizations, appointments, and holds evening hours. Give the CDC a call at (717) 477-1484 or stop by the office for more information. Visit our website at ship.edu/career.

Computing and Network Services

The Computing Technologies Center (CTC) provides computing and network services for instruction, research, and administration. Students may access university e-mail (mail.ship.edu), file space (stufiles.ship.edu), and academic records (my.ship.edu).

Web Support

Web technical and content support are provided for the School of Graduate Studies (ship.edu/graduate) and Graduate Student Association Board (ship.edu/gsab), as well as individual graduate programs across campus. Every graduate student may also create their own personal web site (<http://students.ship.edu>). Students are encouraged to access their academic and scheduling information using the university's secure campus portal (<https://my.ship.edu>).

Computer Labs

The university maintains five general-purpose computer laboratories as well as dozens of departmental labs and computer classrooms. All campus labs have the complete Microsoft Office suite, SPSS, and other standard course applications. Internet access for e-mail services, research, and accessing course management systems is available in each facility. General purpose labs in MCT are open 24 hours, 7 days per week.

Help Desk Services

Shippensburg University Technical Support Desk provides a single point of contact for students experiencing problems relating to personal computer systems and/or network connectivity. Services provided to all students include assistance with wireless connectivity, computer cleanup (virus, spyware and malware) and help with installation of university supplied software (such as anti-virus programs).

Library and Multi-Media Services

The primary goal of this unit is to support the educational mission of the university to prepare students with the fundamental skills of lifelong learning—information gathering, critical evaluation, and creation of media presentations of research findings. In fulfilling this goal the unit provides a variety of services including:

- Assistance in locating books and articles in the Lehman Library, the Luhrs Library Media Center, in online databases, and from other libraries
- Document delivery of articles housed in the Lehman Library and acquired through interlibrary loan services
- Help in recognizing useful Internet resources
- Guidance in citing resources and avoiding plagiarism
- “Ask Us Anything” reference service to assist students face-to-face at the Reference Desk or via chat, e-mail, or phone (text or voice)
- Personal appointments for assistance with an assignment or research project
- Basic support with computer literacy and software applications used at the university including:
 - Desire2Learn Learning Management System
 - e-mail
 - passwords
- Technology support in presentation software including video, audio, and image editing
- Video conferencing and classroom media support
- Student Multimedia Production Center
- Television studio production facilities and remote television production support
- Equipment check-out for digital cameras, digital camcorders, LCD projectors, laptops, etc.

Visit the library online at library.ship.edu and Multi-Media Services at ship.edu/media/. For more information or assistance with an information or media-related need, call:

Lehman Library Circulation Desk	(717) 477-1465
Lehman Library Reference Desk	(717) 477-1474
Luhrs Library Media Center	(717) 477-1003
Instructional Design and Development Services	(717) 477-1816
Media Services	(717) 477-1646
Broadcast Services	(717) 477-1759

Learning Center

The Learning Center, located on the first floor of the Ezra Lehman Memorial Library, is the university's primary site for tutoring services and academic support. Within the center, students are able to select from an array of options that can help them improve their academic performance, writing proficiency, and learning abilities. Outside the center, students can peruse the Learning Center's website at ship.edu/learning/ to obtain information on tutoring options, view virtual workshops, find schedules for face-to-face workshops, access writing and study skills resources, and learn how to schedule an appointment with a tutor or a Learning Specialist. The Learning Center works with the faculty and student affairs offices to provide services and programs that enhance the learning experiences of students.

Tutoring Services

Content tutoring is available in most general education courses and a number of upper-level disciplinary courses. Free one-on-one tutoring, small group tutoring, and drop-in tutoring is provided through peer tutors and graduate assistants who are carefully trained, and regularly evaluated. Students seeking individual tutoring sessions can schedule an appointment or simply stop by the Learning Center

to see if a tutor is available on a walk-in basis. For students who enjoy studying in a collaborative environment, small group tutoring offers students the chance to meet in study groups where a tutor helps explain problem areas and guides the direction of the group. Students who desire flexibility and a casual tutoring environment will enjoy the drop-in tutoring option where they can choose to meet with a tutor or small group for as little as a few minutes or up to a few hours. The many options for tutoring provide students with choices to fit their learning styles and academic needs.

The Learning Center also offers individual appointments, workshops, and resources for helping students improve their writing or address writing concerns. Students can schedule an individual appointment with a trained writing tutor where they can discuss their work-in-progress and enhance their writing abilities. Through the Learning Center's website, students can also view online writing workshops, learn about interactive workshops available at the center, and access writing resources to help them throughout the writing process. Drop-in tutoring is available one day a week and students are also encouraged to stop by the Learning Center to see if a writing tutor is available on a walk-in basis. Students will find that talking with a writing tutor can help them strengthen their writing skills and improve the quality of their writing assignments.

Learning Specialists

Professional learning specialists are available to help students develop effective learning strategies and reach their academic goals. Learning specialists are equipped to help students improve their study and testing habits and learn how to manage their time, test anxiety, and stress. Not only can a learning specialist serve as a mentor to students experiencing difficulties in their academic skills, but learning specialists can also successfully help students on probation improve their academic standing. Learning specialists meet with students on a one-to-one basis, and students should schedule an appointment to meet with a Learning Specialist.

Multicultural Student Center

The Office of Multicultural Student Affairs (MSA) is a student-centered office located in the Multicultural Student Center in Gilbert Hall. The office assists groups such as the African American Organization, Multicultural Affairs APB, Latino Student Organization, Cultural Difference Committee, Asian American Organization, and others with program development and implementation. It also serves as a focal point and a resource for students, faculty, and others. MSA serves as a liaison with areas such as financial aid, residence life, career development, as well as the community. The office strives to expose students to individuals and experiences that will enhance their awareness of self and culture. The MSA works to improve the quality of life for all students enrolled at the university. The MSA slogan is, "We are in the business of bridge building—not bridges of steel between riverbanks, but bridges of understanding between people."

Cora I. Grove Spiritual Center

The Campus Ministry Offices are located in the Cora I. Grove Spiritual Center (Catholic Campus Ministry, room 215, 717-477-1244; and United Campus Ministry, room 213, 717-477-1672).

University Store

The University Store is located in the Ceddia Union Building.

The store provides textbooks, trade books, school supplies, gift items, imprinted clothing, greeting cards, and book buy back. The store is open Monday through Thursday, 7:45 AM to 7:00 PM; Friday, 7:45 AM to 4:30 PM; and 10:00 AM to 3:00 PM on Saturday during the school year. For additional information, call (717) 477-1600 or visit our website bookstore.ship.edu.

Women's Center

The Women's Center at Shippensburg University seeks to promote equity by addressing issues of stereotyping, self-defense, women's health, domestic violence, and sexual assault. The Women's Center serves the campus community by hosting programs, conferences, workshops and other events that bring attention to women's issues. We work as advocates for students, faculty, and staff that have been affected by sexual harassment, dating violence and sexual assault. The Women's Center's conference room, lounge, and library are valuable resources to members of the campus community. The Women's Center is located on the first floor of Horton Hall and is online at ship.edu/womens_center.

Other Information

Commencement

Two commencements are held each year, one in December and one in May.

Students completing degree requirements during the summer or the fall may participate in the December commencement. Students completing degree requirements in the spring may participate in the May commencement. Students planning to graduate in the summer may also attend May commencement.

Graduate degree candidates must submit their application for graduation and pay the graduation fee to the Registrar's Office by the end of the second week of their final term. Applications received after the deadline date will be held and processed for the next commencement.

Fee Waiver for Senior Citizens

Tuition charges may be waived for senior citizens enrolled in any graduate program providing space is available within the desired courses. Applications for this waiver should be initiated through the Registrar's Office prior to registration for the courses to which it will apply. Application for and approval of the waiver must occur prior to registration for the courses to which it will apply. Requests for retroactive waivers will not be considered. All other fees described in this catalog are due and payable at time of registration.

A senior citizen is defined as a retired United States citizen residing in the Commonwealth of Pennsylvania who is 60 or more years of age. Documentation that the requesting student meets the above eligibility criteria will be required.

Pennsylvania Residency

Students applying for graduate study at Shippensburg University will be classified as resident or nonresident for fee purposes by the Office of Graduate Admissions. This classification is based on information furnished by the applicant and all other relevant information. The Office of Graduate Admissions may require written documents, affidavits, verifications, or other evidence necessary to establish the domicile of a student.

Domicile is defined by the regulations of the State System of Higher Education as the place where one intends to reside either permanently or indefinitely and does, in fact, so reside. It is the student's responsibility to present clear and convincing evidence to establish residency for fee purposes.

Determination of Domicile

Continuous residence in Pennsylvania for a period of 12 months prior to registration creates a presumption of domicile. You are presumed not to be a domiciliary if you have resided for a shorter period, but you may rebut this presumption by clear and convincing evidence.

Students who are not United States citizens, and have nonimmigrant visas or lack a visa, are presumed not to be domiciled in Pennsylvania, but they may rebut this presumption by clear and convincing evidence.

A U.S. government employee or a member of the armed forces who was domiciled in Pennsylvania immediately preceding entry into government service and who has continuously maintained Pennsylvania as his or her declared legal residence, shall be presumed to have a Pennsylvania domicile. Nonresidents stationed in Pennsylvania for military service shall be deemed Pennsylvania domiciliaries.

Evidence

The following factors may be considered as evidence of domiciliary intention: lease or purchase of a permanent, independent residence within Pennsylvania; payment of appropriate state and local taxes; agreement for permanent, full-time employment within the state; registration of a motor vehicle in Pennsylvania; registration to vote in Pennsylvania; possession of a valid Pennsylvania driver's license; and a sworn statement declaring your intention to make Pennsylvania your residence either permanently or for an indefinite period of time.

Each case is decided on the basis of all the facts submitted, with qualitative rather than quantitative emphasis. No given number of factors is required for domicile, since the determination in each case is one of the subjective intention of the student to reside permanently or indefinitely in Pennsylvania.

Procedures for Reclassification

You may challenge the university's determination of your domicile by submitting a written petition to the Vice President for Student Affairs within 30 days after the issuance of the determination. This petition should contain your reasons in support of your claim of Pennsylvania domicile and any supporting documentation you may wish to submit. You must also submit a Residency Classification Data Collection form with your petition.

If your petition is denied, you will be notified in writing. You may appeal this decision to the Office of the Chancellor of the State System of Higher Education. This written appeal must reach the Office of the Chancellor within 30 days of the date the university's decision was mailed.

Change of Domicile

If you change your domicile from Pennsylvania to another state, you must promptly notify the Registrar's Office. You may also be reclassified as a nonresident if the university believes you are no longer a Pennsylvania domiciliary.

Weather Conditions

Information pertaining to cancellation of classes due to bad weather will be available by calling HOTLINE at (717) 477-1200 or visiting ship.edu/weather. When classes are canceled, radio stations in the general area will be notified. When classes are not canceled students should use their own good judgment as to whether they can make it to classes without taking unnecessary risks regarding their own safety. Accordingly, students who are unable to attend classes are responsible for contacting the instructor to make arrangements for making up any work missed.

University Curricula

Graduate curricula of the university lead to the master's degree or to post-master's certification in school administration.

Graduate Degrees

Shippensburg University provides graduate curricula leading to five degrees:

Master of Arts (M.A.)
Master of Arts in Teaching (M.A.T.)
Master of Business Administration (M.B.A.)
Master of Education (M.Ed.)
Master of Public Administration (M.P.A.)
Master of Science (M.S.)
Master of Social Work (M.S.W.)

These degree programs are offered by the College of Arts and Sciences, the John L. Grove College of Business, and the College of Education and Human Services. The M.S.W. is offered jointly with Millersville University.

Departments and Degree Programs

The following table lists the departments in each college and the graduate degree programs available for each department. Concentrations for each program are italicized.

College of Arts and Sciences

Biology Department
 Biology M.S.
 Computer Science Department
 Computer Science M.S.
 Communication/Journalism Department
 Communication Studies M.S.
 Digital Media
 Strategic Public Relations
 Geography/Earth Science Department
 Geoenvironmental Studies M.S.
 History and Philosophy Department
 Applied History M.A.
 Political Science Department
 Public Administration M.P.A.
 Psychology Department
 Psychological Science M.S.
 Sociology and Anthropology Department
 Organizational Development and Leadership M.S.
 Business
 Communications
 Environmental Management
 Higher Education Structure and Policy
 Historical Administration
 Individual and Organizational Development
 Management Information Systems
 Public Organizations
 Social Structures and Organization

John L. Grove College of Business

Business Administration MBA

College of Education and Human Services

Counseling and College Student Personnel Department
 Counseling M.S.
 College Counseling
 College Student Personnel
 Clinical Mental Health Counseling
 Counseling M.Ed.
 Dual (K-12) School Counseling
 Criminal Justice Department
 Administration of Justice M.S.
 Educational Leadership and Special Education Department
 School Administration M.Ed.
 Special Education M.Ed.
 Behavioral Disorders
 Certification
 Learning Disabilities
 Mental Retardation/Developmental Disabilities
 Social Work and Gerontology Department
 Social Work M.S.W.
 Teacher Education Department
 Curriculum and Instruction M.Ed.
 Biology
 Early Childhood Education
 Elementary Education
 English
 Geography/Earth Science
 History
 Mathematics
 Middle Level Education
 Modern Languages
 Reading M.Ed.
 Science Education M.A.T.

Master of Education Degree

Teacher education programs at Shippensburg University are designed to prepare competent professionals for classroom teaching and for leadership positions in a variety of educational settings and institutions. The teacher as a "reflective co-learner" is the focus of the university's education programs.

Shippensburg University's teacher education programs are accredited by the National Council for Accreditation of Teacher Education (NCATE), with conditions, and by the Pennsylvania Department of Education (PDE).

The following applies to all programs leading to the Master of Education degree.

General Guidelines

1. Each candidate's program leading to the Master of Education degree must include at least 9 semester hour credits of graduate work in professional education.
2. Each candidate's program for the Master of Education degree must include at least 9 semester hour credits of graduate work in the content area of the candidate's teaching field.
3. The department of the candidate's teaching field may not specify more than 18 semester hour credits of required courses in the Master of Education degree program. Of these 18 credits that may be specified, not more than 15 credits may be required in professional studies. The department, however, may require up to 18 credits in the content field.
4. Each candidate for the Master of Education degree must be able to include at least three credits of free electives in the program.
5. Each candidate for the Master of Education degree must complete the departmental course in Elements of Research.
6. Completion of the Master of Education degree does not lead to Instructional I teacher certification. Further information may be found in the section Teacher Certification.

Instructional Certificates

Instructional I provisional certificates (Chapter 49.82*) are issued to applicants who possess a baccalaureate degree, successfully complete a PDE-approved teacher certification program, successfully pass department-prescribed tests, and Pennsylvania Department of Education test requirements (Praxis), and receive recommendation from a college or university.

Instructional II certificates (Chapter 49.83*) are issued to applicants who complete a Pennsylvania Department of Education-approved induction program, complete three to six years of satisfactory teaching on an Instructional I certificate in approved public or non-public schools, and complete 24 semester credit hours of collegiate study or in-service programs approved by the department, as well as any other requirements identified by the Pennsylvania Department of Education.

More detailed information concerning Instructional, Educational Specialist, Supervisory, and Administrative Certificates as well as the Superintendent's Letter of Eligibility is available from the Bureau of Teacher Certification, Department of Education, 333 Market Street, Box 911, Harrisburg, PA 17126.

Students who can qualify for admission to graduate classes are encouraged to take graduate work to earn the credits required to maintain active certification. These credits may also count toward meeting the requirements of the Master of Education degree.

The graduate program also provides opportunities for persons who have a bachelor's degree and a teaching certificate to extend their certification to other areas. The curricula are not designed primarily for this purpose but do provide some courses that may be applied toward certification in specific areas.

**Pennsylvania Code, Chapter 49, Certification of Professional Personnel*

Teacher Certification

Certification for educators in Pennsylvania is determined by State Board of Education Regulations, Chapter 49, Certification of Professional Personnel. Revised regulations which became effective June 1, 1987, apply to all candidates who receive an Instructional I certificate after that date. By Department of Education policy, certificates are renewed or made permanent subject to the terms and conditions of the regulations in effect at the time the certificate was initially issued.

K-12 School Principal Certification

The Pennsylvania Department of Education has granted approval to Shippensburg University to offer a graduate program leading to the Master of Education degree in Educational Administration which includes the certification of K-12 school principals and a post-master's degree program leading to the certification of K-12 school principals. Detailed information concerning this program can be found under the Educational Leadership and Special Education Department.

Supervisory I Certificate

Shippensburg University offers post-master's degree programs in the following fields leading to the Supervisory I Certificate issued by the Pennsylvania Department of Education:

- Communication/English
- Counseling
- Early Childhood Education
- Elementary Education
- Environmental Education
- Foreign Languages
- Mathematics
- Pupil Services
- Reading
- Science
- Social Studies/Citizenship
- Special Education

Superintendent's Letter of Eligibility

Shippensburg University offers a post-master's degree program leading to the Superintendent's Letter of Eligibility. More detailed information on this Department of Education approved program can be found under the Educational Leadership and Special Education Department.

Responsibility

All programs in teacher education are the direct responsibility of the Dean of the College of Education and Human Services, who is designated as the official university certification officer. Policies and guidelines for teacher education programs are developed by an all-university Teacher Education Council.

College of Arts and Sciences

James H. Mike, Ph.D., Dean, College of Arts and Sciences (717-477-1151)

Biology Department

Timothy J. Maret, Ph.D., *Chair* (477-1401)

Marcie L. Baer-Lehman, Ph.D.

Sherri E. Bergsten, Ph.D.

Alyssa Bumbaugh, Ph.D.

Pablo Delis, Ph.D.

Lucinda H. Elliott, Ph.D.

Todd M. Hurd, Ph.D.

Marcie Lehman, Ph.D.

Theo S. Light, Ph.D.

David R. Long, Ph.D.

Michael R. Marshall, Ph.D.

Michael J. McNichols, Ph.D.

Earl L. Nollenberger, Ed.D.

William J. Patrie, Ph.D.

Gregory S. Paulson, Ph.D.

Heather F. Sahli, Ph.D.

Richard L. Stewart, Ph.D.

Nathan E. Thomas, Ph.D.

Biology (M.S.)

The Master of Science degree program in biology is designed to provide a strong foundation in the biological sciences within the discipline.

All applicants for admission must have completed at least 33 semester hour credits of undergraduate biology or biology-related courses (e.g. forestry, horticulture, environmental studies), and have taken at least three chemistry courses with labs, including both inorganic and organic chemistry or biochemistry. In addition, it is recommended applicants have completed a course in evolution, mathematics through calculus, and one year of physics.

After admission to the graduate program in biology, the student will meet with his/her graduate advisor to complete a proposed course of study form.

Each candidate for a degree must complete a minimum of 31 semester hour credits. All candidates must complete BIO593 Biometry and BIO515 How to Research, Write, and Publish a Scientific Paper.

No more than 12 semester hours of 400-level courses may be counted toward the 31 semester hours of credit required for the master's degree.

At least 21 credits must be earned in biology courses (including courses offered by the Marine Science Consortium at Wallops Island). The remainder may be selected, with advisement, from courses such as chemistry, physics, mathematics, computer science, or geography/earth science. Candidates simultaneously working towards secondary certification may count EDU440 Teaching of Science in Secondary Schools and EDU441 Curriculum and Evaluation in the Secondary Science Classroom towards these remaining credits.

Specific Requirements

Master of Science in Biology (non-thesis)

In addition to completing BIO593 and BIO515, candidates must complete 27 semester hour credits. Candidates may elect up to six of these 27 semester hour credits as graduate research.

Master of Science in Biology (thesis)

In addition to completing BIO593 and BIO515, candidates must complete 27 semester hour credits including six semester hour credits of Thesis I and Thesis II (BIO612 and BIO613). Candidates may also elect up to three of these 27 semester hour credits as graduate research.

Other Requirements

1. All candidates must complete 31 semester hour credits with a 3.0 QPA in a program of study and research approved by the student's special committee.
2. The thesis must be written in manuscript style format with any material not appropriate for a scientific manuscript (i.e., voluminous tables) included as appendices. The specific style will depend on the requirements of the individual journal to which the manuscript will be submitted.
3. An oral thesis defense, advertised and open to the university community, is required.
4. A formal seminar based on the thesis research must be presented to the biology department by thesis candidates.
5. One copy of the thesis will be housed in the biology department office.

Courses

A plus sign (+) represents a required course in the appropriate track or degree.

BIO408 Principles of Virology	
BIO409 Immunology	
BIO417 Herpetology	
BIO418 Molecular Biology	
BIO423 Plant Pathology	
BIO430 Principles of Evolution	
BIO442 Aquatic Ecology	
BIO444 Conservation Biology	
BIO448 Field Botany and Plant Taxonomy	
BIO450 Endocrinology	
BIO455 Algae and Aquatic Plants	
BIO461 Techniques in Biotechnology	
BIO462 Invertebrate Zoology	
BIO463 Vertebrate Zoology	
BIO478 Microtechniques	
BIO485 Biological Microscopy and Imaging	
BIO491 Selected Topics	
BIO494 Field Research Techniques	
BIO513 Cytogenetics	
BIO514 Aquatic Entomology	
+ BIO515 How to Research, Write, and Publish a Scientific Paper	1 cr.
BIO520 Plant Ecology	
BIO535 Problems in Plant Physiology	
BIO541 Ecosystems	
BIO547 Wetland Ecology	
BIO555 Comparative Environmental Physiology	
BIO558 Microbial Ecology	
BIO559 Evolutionary Ecology	
BIO577 Ecomorphology	
BIO581 Topics in Mammalian Biology	
BIO583 Biological Techniques	
+ BIO593 Biometry	
BIO594 Selected Topics	1-3 crs.
BIO599 Independent Study	
BIO600 Biological Research Methods	
BIO605-608 Graduate Research	3-12 crs.
BIO609 Internship	
+ BIO612 Thesis I	
+ BIO613 Thesis II	

Science Supervisor

For information concerning the post-master's degree program leading to Pennsylvania certification as a Science Supervisor, refer to the Department of Educational Leadership and Special Education.

Communication/Journalism Department

A. Joseph Borrell, Ph.D., *Chair* (477-1528)

Jeffrey T. Bitzer, J.D.

Masudul Biswas, Ph.D.

Edward J. (Ted) Carlin, Ph.D.

Michael Drager, Ph.D.

John R. Ellerbach, Ph.D.

Margaret Evans, M.F.A.

Kimberly Garris, Ph.D.

Carrie A. Sipes, Ph.D.

Stephanie Witmer, M.F.A.

Communication Studies (M.S.)

The Master of Science degree in communication studies is directed to the student seeking a professionally focused program for:

1. The media professional seeking career advancement and further development of digital media and skills.
2. The media professional seeking career advancement and further development of strategic public relations skills.
3. The baccalaureate degree holder in another discipline who wishes to prepare for a career in the professional communications field.

Applicants who do not have an undergraduate degree in communication/journalism or extensive professional experience in communications may be required to take additional undergraduate courses to make up this deficiency. All applicants must provide a professional résumé, three professional references and a typed 400-500 word essay on the benefits to be gained by completing this degree. The essay must demonstrate writing skills acceptable to the department. All applicants who do not have an overall undergraduate quality point average of 2.75 or greater will be required to take the Graduate Record Exam (GRE) or the Millers Analogies Test (MAT) or have significant communications work experience. Special rules apply to international students.

All students accepted into the program must apply for candidacy status after completing at least six semester hours of graduate communications (COM) courses and any graduate deficiency courses specified by the department chair, provided he or she has earned at least a 3.0, B average in all courses completed. Applications for candidacy status may be obtained from the Communication/Journalism Department office and/or website (ship.edu/Communication-Journalism/).

Degree Requirements

A minimum of 30 graduate semester hour credits is required for the completion of the Master of Science degree in communication studies.

REQUIRED CORE COURSES (9 crs.)

(Students must complete all three core courses.)

COM510 Professional Seminar

COM520 Applied Mass Communication Research

COM603 Project in Mass Communication

PROFESSIONAL TRACKS REQUIRED CORE (6 crs)

(Students must select one option and complete both courses.)

Strategic Public Relations

COM505 PR Foundations

COM506 PR Strategies

Digital Media

COM527 Digital Storytelling

COM528 Digital Media Workshop

ELECTIVES (15 crs. with advisement)

Students choose communications and related interdisciplinary courses to satisfy professional goals and personal interests. Students are limited to three interdisciplinary courses.

Communication Studies Electives:

COM410 Women and the Media

COM425 Feature Writing

COM451 Electronic Field Production

COM452 Electronic News Gathering

COM460 Case Studies in Public Relations

COM470 Advanced Digital Photographic Communication

COM476 Magazine Design

COM481 Interactive Media Design

COM482 Internet Communication

COM484 Electronic Media Programming and Management

COM490,491,492 Selected Topics in Communication/Journalism

COM511 Modes of Film Communication

COM516 Photographic Communication

COM526 Emerging Media Technologies

COM530 Law and the Media

COM536 World Broadcasting Systems

COM570 Fund Raising and Association Public Relations

COM594 Selected Topics

COM609 Internship I

COM610 Internship II

Interdisciplinary Electives:

With their advisors' approval, students may select up to three interdisciplinary courses that enrich and broaden the communication studies curriculum.

400 Level Courses

Students may include no more than 12 credits of 400 level courses in their degree program.

Internships

COM609 Internship I and COM610 Internship II may be taken by qualified students. Each internship requires a minimum of 120 hours of work at a mass media-related organization. The main objective of the internship is to provide the student with direct experience in the operation of a newspaper, magazine, radio station, television station, public relations/advertising office, or other approved media-related organization.

Professional Organizations

A variety of professional organizations supplement instruction. There are active chapters of the National Broadcasting Society (NBS), the Public Relations Student Society of America (PRSSA), and the Society of Professional Journalists (SPJ). The department and many of its faculty belong to the Association for Education in Journalism and Mass Communications (AEJMC), the Broadcast Education Association (BEA), the Public Relations Society of America (PRSA), the Society of Professional Journalists (SPJ), the Pennsylvania Association of Broadcasters, and Pennsylvania Journalism Educators.

Communication/English Supervisor

For information concerning the post-master's degree program leading to Pennsylvania certification as a Communication/English Supervisor, refer to Supervisory Certification Programs in the Department of Educational Leadership and Special Education.

Computer Science Department

Carol A. Wellington, Ph.D., *Chair* (477-1424)

Alice J. Armstrong Ph.D.

Thomas H. Briggs, Ph.D.

C. Dudley Girard, Ph.D.

David A. Hastings, Ph.D.

Jeonghwa Lee, Ph.D.

David J. Mooney, Ph.D.

Computer Science (M.S.)

Computer science is a fast-moving field that continues to attract professionals whose undergraduate degrees are not in computer science. The M.S. in computer science is designed for those students who want to transition from another discipline into computer science. As such, it contains background material and the equivalent of a terminal master's degree in computer science. While assuming little computer science background, the program will provide students who intend to enter the job market upon graduation with tools that will enable them to successfully adapt to technologies that are ever changing.

Full-time graduate students will take nine graduate credits per semester and graduate in two years. Part-time students can take one course in the evening during the fall and spring semesters and one or two courses in the summer to graduate in three and a half to four years. Students are admitted in any semester.

Admission Requirements

To gain admission to the Master of Science degree in computer science program, an applicant must satisfy the general admission requirements of the graduate school. Applicants whose overall quality point average is below 2.75 will be required to take the Graduate Record Examination (GRE) prior to admission. All international applicants who have not graduated from a four-year American university must take the Test of English as a Foreign Language (TOEFL). Additionally, all such applicants must achieve a score of 237 on the TOEFL (computer based).

Degree Requirements

All students are required to take 30 credits consisting of:

Core Courses

CSC501 Algorithm Design and Analysis

CSC502 Automata Theory

CSC520 Computer Architecture

CSC521 Operating Systems

CSC523 High Performance Computing

CSC570 Database Management Systems

Electives

CSC514 Programming Languages

CSC534 Computer Security

CSC550 Scientific Visualization

CSC571 Advanced Databases

CSC592 Advanced Topics in Computer Science

Geography/Earth Science Department

William L. Blewett, Ph.D., *Chair* (477-1685)

Michael Applegarth, Ph.D.

Sean Cornell, Ph.D.

Scott Drzyzga, Ph.D.

Alison Feeney, Ph.D.

Thomas Feeney, Ph.D.

Kurtis Fuellhart, Ph.D.

Tim Hawkins, Ph.D., Graduate Coordinator (477-1662)

Claire Jantz, Ph.D.

Paul Marr, Ph.D.

George Pomeroy, Ph.D.

Janet S. Smith, Ph.D.

Kay R.S. Williams, Ph.D.

Christopher Woltemade, Ph.D.

Joseph Zume, Ph.D.

Geoenvironmental Studies (M.S.)

Admission Requirements

An applicant must meet the minimum standards of the School of Graduate Studies and must have an undergraduate minimum of:

- 12 hours in geography or 12 hours in the earth sciences or a combined total of 18 hours in the two fields; or,
- 15 hours in the social sciences including 6 hours of geography and 15 hours in the natural sciences including 6 hours in the earth sciences.

Conditional admission may be granted by the departmental graduate faculty committee for a student lacking the required level of entrance credits with full admission granted after the deficiencies have been corrected and six hours of graduate work successfully completed. Applicants who do not have an overall quality point average of 2.75 or greater will be required to take the Graduate Record Exam (GRE) prior to admission. Each student will plan a program on an individual basis with the graduate faculty ensuring a balanced natural/social science background.

Mission

The Geography-Earth Science Department at Shippensburg University is committed to student learning and personal development through innovative teaching, high quality field application, and use of geotechnology in all aspects of departmental programs. These commitments will deepen student appreciation of geography-earth science, encourage life-long learning, and prepare graduates to be successful in their future endeavors. The geoenvironmental studies graduate program is designed to be flexible in order to meet the varied needs of a wide range of students. The specific mission of the graduate program can be summarized as follows:

- Develop mastery of theoretical knowledge and provide experience with practical applications from a wide range of environmental and geotechnical disciplines.
- Provide further training and experience to increase competitiveness in the environmental and geotechnical job markets.
- Provide continuing education to fulfill professional development requirements.
- Provide a solid foundation for continued graduate education.

Core Areas

The department has several core areas in which teaching and research activities are focused. While one goal of the program is to provide broad training in environmental science, students will align with one or more faculty who will advise the student in course selection and research. As such, students must make contact with faculty members to determine where a student's specific interests lie. Below is a list of core areas:

- Land Use/Human Geography
- Techniques
- Hydrology/Climatology
- Geology

Deficiencies and Prerequisites

If an incoming student has little or no experience with geography or environmental science, s/he may be required to take undergraduate courses (not for graduate credit) to overcome these deficiencies. The department chair, graduate coordinator, and curriculum committee will establish a list of deficiencies (if any) for all students before they begin the program. Courses from other higher education institutions or appropriate professional experience may fulfill deficiencies.

Facilities

The department has two 20-computer student labs that are equipped with the latest versions of GIS, image processing, word processing, and data analysis software as well as color and black and white laser printers. In addition, there is a small research computer lab that is equipped with specialized software along with a 42 inch plotter for poster printing. Attached to the computer labs is a communal graduate assistant office that also contains computers. Graduate students also have access to the student lounge located between the GIS labs.

The department owns numerous pieces of field equipment that can be used for classroom applications as well as student research. This equipment includes but is not limited to: digital surveying equipment, hand held and logging hydrologic and meteorological equipment, soils and geologic tools, air quality monitoring equipment, maps, and GPS units. The software associated with much of this equipment is available in the student or research computer labs. There is dedicated lab space for processing any samples that are collected for classroom or research field projects. Arrangements also exist for more sophisticated off-site sample processing. The university is also part of the Marine Science Consortium at Wallops Island. Students may take advantage of this facility during their graduate program for classroom, research, and internship opportunities.

Degree Requirements:

Students are required to take at least 36 credits to complete the master's degree in Geoenvironmental Studies. Listed below are the specific courses and requirements that must be completed to earn the degree.

- Students must take **GEO503 Fundamentals of Geoenvironmental Research** during the first semester it is offered.
- Students must take a minimum of 18 credits at the 500 level, including GEO503.
- Students may take a maximum of 12 credits at the 400 level for credit towards the M.S. degree.
- Students must take a minimum of 3 credits of geotechniques courses at either the 400 or 500 levels.
- Students may take a maximum of 6 credits outside of the department.
- Students must complete a **thesis (6 credits) OR a one semester research project (3 credits) and internship (6 credits)**.
- Students must take and pass the departmental practical exam.

REQUIRED COURSES:

GEO503 Fundamentals of Geoenvironmental Studies (3 crs., restricted to Geoenvironmental majors)

A minimum of 3 credits of geotechniques chosen from the following:

GEO420 GIS III: Advanced Geographic Information Systems
 GEO425 Image Processing
 GEO440 Field Techniques
 GEO441 Quantitative Methods
 GEO517 Applied GIS
 GEO530 Mapping Sciences

ELECTIVES:

ESS404 Applied Meteorology and Climatology
 ESS413 Rock and Mineral Resources
 ESS442 Environmental Geology
 GEO402 Medical Geography
 GEO404 Groundwater and Hydrogeology
 GEO415 Regional Geographic Studies
 GEO420 GIS III: Advanced Geographic Information Systems
 GEO425 Image Processing
 GEO440 Field Techniques
 GEO441 Quantitative Methods
 GEO444 Environmental Land Use Planning
 GEO446 Water Resources Management
 GEO450 Geography-Geology Field Studies (1-3 crs.)
 GEO490 Selected Topics (1-3 crs.)
 GEO514 Urban Environment
 GEO517 Applied GIS
 GEO522 Geoenvironmental Hydrology
 GEO524 The Geologic Environment
 GEO528 Geography of Economic and Environmental Systems
 GEO530 Mapping Sciences
 GEO531 Geomorphology
 GEO532 Disease and Environment
 GEO536 Problems of the Atmospheric Environment
 GEO542 Land Use Regulations
 GEO546 Geoenvironmental Research I
 GEO548 Geoenvironmental Research II
 GEO594 Selected Topics (1-3 crs.)
 GEO599 Independent Study

INTERNSHIP OR THESIS:

Six credits of internship or thesis must be taken. If an internship is taken, a 3 credit research course (GEO594 or GEO599) is required.

GEO609 Internship I
 GEO610 Internship II
 GEO612 Thesis I
 GEO613 Thesis II

Students pursuing both a Master of Science in Geoenvironmental Studies AND Teacher Certification in Geography-Social Studies or Earth-Space Science, may use EDU495 Student Teaching and Professional Practicum (6 credits) in place of GEO609 Internship I and GEO610 Internship II.

NATURAL/SOCIAL SCIENCE ELECTIVES:

Up to 6 credits may be taken from outside Geography-Earth Science by advisement.

History and Philosophy Department

Steven Burg, Ph.D., *Chair* (477-1265)

Kwabena Akurang-Parry, Ph.D.

Douglas Birsch, Ph.D.

John D. Bloom, Ph.D.

Catherine Clay, Ph.D.

Betty A. Dessants, Ph.D.

Allen Dieterich-Ward, Ph.D.

James Edwards, Ph.D.

David F. Godshalk, Ph.D.

Kim Klein, Ph.D.

Chandrika Paul, Ph.D.

Gretchen Pierce, Ph.D.

John Quist, Ph.D.

Susan Rimby, Ph.D.

Christine Senecal, Ph.D.

Robert Shaffer, Ph.D.

Jonathan Skaff, Ph.D.

Mark E. Spicka, Ph.D.

Allan A. Tulchin, Ph.D.

Brian Ulrich, Ph.D.

Applied History (M.A.)

Shippensburg University's graduate program in Applied History is designed for college graduates seeking advanced historical training and educators seeking professional development opportunities. For those seeking careers in the field of public history, the program offers course work and professional internships to prepare students for employment in museums and historical institutions. Educators will find a diverse array of courses in United States history, world history, and historical methods that will deepen their historical knowledge and provide new resources for classroom use. (All courses can be used to help satisfy Pennsylvania's Act 48 requirements.) The curriculum provides a rigorous historical training that can also prepare students for further graduate work in history or library studies. Recent graduates have secured teaching positions at community colleges, obtained research and editorial positions in both public and private sector, and started public history careers with organizations such as History Associates Incorporated, the U.S. Army Heritage and Education Center, the U.S. Army Military History Institute, and the National Park Service.

Admission Requirements

To be eligible to pursue a Master of Arts degree in applied history, you must:

- Have a baccalaureate degree from an accredited college or university.
- Present an official transcript showing at least a 2.75 cumulative quality point average for your undergraduate studies.

If you have less than a 2.75 cumulative undergraduate quality point average, you may be accepted following an interview and the submission of a 500-word Statement of Purpose in which you provide additional evidence of your interest in history, your potential as a graduate student, and your reasons for pursuing graduate studies.

Degree Requirements

The degree can be earned in approximately one and one-half years of full-time study or several years of part-time study. To be awarded a Master of Arts degree in applied history, you must complete a minimum of 30 hours of graduate work distributed as follows:

REQUIRED COURSES (12 crs.)

HIS600 Computerized Historical Research Methods	3 crs.
or	
HIS601 Research in Local and Regional History	3 crs.
and	
HIS501 Introduction to Applied History	3 crs.

and

HIS609 and 610 Internship I and II 6 crs.

or

HIS612 and 613 Thesis I and II 6 crs.

or

EDU495 Student Teaching 6 crs.

This option is only available to students pursuing both the Master's in Applied History and Teachers Certification.

RESTRICTED ELECTIVES (9 crs.)

Chosen within the following fields:

I. History of the Americas (3 crs.)

HIS402 Revolutionary America

HIS428 Issues in the Gilded Age and Progressive Era

HIS430 U.S. Cultural History

HIS490 Selected Topics*

HIS513 Seminar in U.S. Women's History

HIS515 Seminar in 20th Century U.S. Social History

HIS516 Seminar in African-American History

HIS519 Seminar in International Relations

HIS525 Seminar in U.S. Regional History

HIS526 Seminar in Civil War Era

HIS594 Selected Topic*

HIS599 Readings in History*

HIS601 Research in Local and Regional History (if not used to satisfy the research requirement)

**with advisement*

II. Global Connections and Comparisons (3 crs.)

HIS407 Women in Comparative Perspective

HIS410 The Islamic World

HIS421 Studies in 19th Century European History

HIS423 Issues in 20th Century Europe

HIS454 China and the Outside World

HIS490 Selected Topics*

HIS499 Historiography

HIS501 Introduction to Applied History (if not used to satisfy the research requirement.)

HIS512 Seminar in Comparative Labor History

HIS514 Population in History

HIS519 Seminar in International Relations

HIS532 20th Century Europe

HIS534 Seminar in Modern German History

HIS535 Seminar in Medieval Studies

HIS558 Seminar in East Asia and the Modern World

HIS562 Seminar in African History

HIS594 Selected Topic*

HIS599 Readings in History*

**with advisement*

III. Applied History Skills (3 crs.)

HIS505 Advanced Topics in Public History

HIS433 Oral History

HIS502 Introduction to Archives

HISTORY ELECTIVES (9 crs.)

Any course not used to satisfy Restricted Electives

INTERDISCIPLINARY ELECTIVES

With permission of their graduate advisor *and* the department chair, students may substitute up to two graduate courses (6 crs.) for their history electives. These courses should come from other Shippensburg University departments and help students to fulfill their personal interests and professional objectives.

Political Science Department

Curtis R. Berry, Ph.D., *Chair*, (477-1718)
 Cynthia A. Botteron, Ph.D.
 C. Nielsen Brasher, Ph.D.
 Alison D. Dagnes, Ph.D.
 Michael Greenberg, Ph.D.
 Sara A. Grove, Ph.D., J.D.
 Steven B. Lichtman, Ph.D., J.D.
 Amanda M. Olejarski, Ph.D.
 Mark D. Sachleben, Ph.D.
 Lonca Sandy-Bailey, Ph.D.
 Ronnie B. Tucker, Ph.D.

Public Administration (M.P.A.)

In addition to the requirements for admission to graduate classes, the applicant for admission to the Master of Public Administration degree program must present a minimum of six semester hour credits in government or political science. Students will be required to make up any deficiencies in their undergraduate work. Admission Requirements also include a current resume and a two- to three-page writing sample (double spaced).

Applicants who do not have an overall quality point average of 2.75 or greater will be required to pass a personal interview to evaluate life experiences or take either the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT) prior to admission.

The Master of Public Administration degree program requires the completion of a minimum of 36 semester hour credits of graduate work. Each student's program will include core courses and a six-credit thesis or an internship.

Organizational Theory and Behavior, PLS501, should be among the first core courses taken by students. PLS601 is a prerequisite for Public Policy Analysis, PLS603. PLS605 should be taken as late as possible in a student's program to provide a capstone experience. Part or all of the internship requirement can be waived for mid-career applicants with substantial experience.

REQUIRED CORE COURSES (18 crs.)

PLS501 Organizational Theory and Behavior
 PLS502 Human Resources Management
 PLS503 Foundations of Public Budgeting and Finance
 PLS601 Research Methods
 PLS603 Public Policy Analysis
 PLS605 Applied Management Techniques in Public Administration

EXPERIENTIAL REQUIREMENTS (6 crs.)

PLS611 Internship I
 PLS612 Internship II

or

PLS621 Thesis I
 PLS622 Thesis II

ELECTIVES (12 crs.)

PLS431 Pennsylvania Local Government
 PLS504 Ethics for Public Service Managers
 PLS511 State Government
 PLS512 Intergovernmental Relations and Programs
 PLS521 Collective Bargaining and Labor Relations in the Public Sector
 PLS551 Planning and Public Policy
 PLS552 Seminar in Urban-Rural Planning
 PLS561 Administrative Law
 PLS591 Selected Topics

Psychology Department

Robert L. Hale, Ph.D., *Chair* (477-1657)
 Lea Adams, Ph.D.
 Angela M. Bartoli, Ph.D.
 Corrine Bertram, Ph.D.
 Jamonn Campbell, Ph.D.
 Kenneth France, Ph.D.
 James D. Griffith, Ph.D.
 Steven J. Haase, Ph.D.
 Scott F. Madey, Ph.D.
 Ronald Mehiel, Ph.D.
 Suzanne M. Morin, Ph.D.
 Virginia E. Pitts, Ph.D.
 Kathryn Potoczak, Ph.D.
 Toru Sato, Ph.D.
 Ashley Siebert, Ph.D.
 Adrian Tomer, Ph.D.
 Kim Weikel, Ph.D.

Psychological Science (M.S.)

The Master of Science in psychological science degree is a two-year program designed to provide 1) advanced general knowledge of the field, 2) specialized knowledge of subfields, and 3) opportunities to develop appropriate research skills. By providing three separate tracks, the program is flexible enough for students to design a course of study appropriate for their specific needs. Students must declare their commitment to a track by the beginning of their second year.

1. The Research Track is appropriate for those students seeking degrees beyond the master's level. This track allows students to specialize in a subarea of psychology via elective selection and a required thesis (Thesis I and II).
2. The Applied Track is appropriate for graduates who are trying to secure employment in industry, government, or non-profits immediately after graduation. Students have opportunities to take courses with more applied emphases (e.g., Human Factors, Cognitive Science) and have two semesters of real-world experience (Field Experience I and II) in industry settings.
3. The General/Reading Track is designed to meet the needs of those seeking to continue education or advance in their current place of employment. Students will take basic required scientific courses, fulfill cluster requirements, and take additional coursework to broaden their scope. Their competence will be demonstrated by passing a comprehensive exam.

To be considered for the M.S. in psychological science program, the following minimum requirements must be met. An applicant must:

- Have a baccalaureate degree from an accredited college or university
- Have a minimum 2.75 quality point average
- Have a minimum of six credit hours, successfully completed, in psychology
- Have at least one course, successfully completed, in statistics

An applicant must submit an application, including a personal goals statement by the first Tuesday in March for summer or fall admission, or the first Tuesday in November for spring admission.

Degree Requirements

A total of 30 semester hour credits of graduate work is required for the master of science degree.

I. REQUIRED (6-12 crs.)

PSY500 Advanced Research Design and Statistics I
PSY501 Advanced Research Design and Statistics II

Note: PSY500 has a residency requirement - it must be taken from the Department of Psychology

II. CORE COURSES (12 crs.)

(Chose one from each of the following four areas)

Learning and Motivation

PSY512 Theories of Learning
PSY516 Motivation
PSY540 History of Psychology

Developmental and Social

PSY519 Life Span Psychology
PSY527 Studies in the Psychology of Adolescence
PSY529 Psychology of Successful Aging
PSY533 Advanced Social Psychology
PSY590 Intro to Group Dynamics

Personality and Abnormal

PSY515 Theories of Personality
PSY518 Intro to Behavior Analysis
PSY530 Studies in the Psychology of the Exceptional Child
PSY534 Survey of Research in Abnormal Psychology

Biological and Cognitive

PSY5XX An Advanced Bio-Psychology Course
PSY531 Advanced Cognitive Psychology
PSY565 Human Factors
PSY570 Seminar in Cognitive Science

III. ELECTIVES (6-12 crs.)

PSY594,595,596 Selected Topics
Additional Cluster Courses (up to four)

IV. ADDITIONAL PROGRAM REQUIREMENTS

Research Track (6 crs.)

PSY612 Thesis I
PSY613 Thesis II

Applied Track (6 crs.)

PSY621 Field Experience I
PSY622 Field Experience II

General/Reading Track (12 total crs. of electives)

Comprehensive Exam

Students completing Thesis I must also complete Thesis II to be awarded credit for Thesis I.

Visit our website at ship.edu/psychology/ for the most current program information.

Sociology/Anthropology Department

Barbara J. Denison, Ph.D., *Chair, Director, Organizational Development and Leadership Program (477-1257)*

Dina Banerjee, Ph.D.

Philip Broyles, Ph.D.

Allison Carey, Ph.D.

Debra Cornelius, Ph.D.

Cynthia Drenovsky, Ph.D.

Chad Kimmel, Ph.D.

Robert Pineda-Volk, Ph.D.

Ying Yang, Ph.D.

Organizational Development and Leadership (M.S.)

The Organizational Development and Leadership (ODL) Program is designed for those students pursuing leadership positions in various career fields. Its objective is to apply the critical view of organizations from social scientific perspectives and enhance students' understanding of how organizations operate and change over time. The performance and role of leadership in formal and informal settings is an integral part of the program. In addition, students will have the opportunity to develop skills and increase their knowledge in selected discipline areas.

The Master of Science in organizational development and leadership is an interdisciplinary program that will provide students with several opportunities:

1. To learn basic principles and theories of organizational development and the role of leadership.
2. To enhance skills and knowledge in specified content areas.
3. To combine theory with practical experience through an internship in the student's concentration.

Admission Requirements

Applicants must have a baccalaureate degree from an accredited college or university and have a minimum cumulative undergraduate quality point average of 2.75. If GPA was below 2.75, an interview may be requested.

Submit the graduate application along with a current résumé, a one-page personal goals statement, an undergraduate transcript, and a \$40 non-refundable fee.

Degree requirements

CORE COURSES (12 crs.)

SOC550 Leadership Theory and Practice
SOC560 Leadership, Change and Innovation
PLS501 Organizational Theory and Behavior
PLS601 Research Methods

CAPSTONE EXPERIENCE (6 crs.)

(recommended after 18-21 crs.)

SOC570 Applied Leadership and Organizational Analysis
SOC609 Internship (within concentration area)

CONCENTRATION AREAS AND SELECT RECOMMENDED ELECTIVES (12 crs.)

Business

BSN510 Economic and Information Systems Management
 BSN511 Business Operations and Analysis
 BSN512 Essentials of Accounting and Finance
 BSN513 Organizational Behavior and Marketing
 MBA547 Management Information Systems and Applications
**Concentration is designed for students without a business or business-related undergraduate degree*

Communications

COM410 Women and the Media
 COM460 Case Studies in Public Relations
 COM482 Internet Communication
 COM484 Electronic Media Programming and Management
 COM490 Selected Topics in Communication/Journalism
 COM500 Communication Theory
 COM516 Photographic Communication
 COM526 Emerging Mass Media Technologies
 COM530 Law and the Media
 COM536 World Broadcasting Systems
 COM544 Advanced Communication Problems
 COM561 Press and Public Affairs
 COM570 Fund Raising and Association Public Relations
 COM600 Introduction Mass Communication Research
(ODL students in this concentration are advised COM600 may be taken to replace PLS601 in core; an additional concentration course will be necessary if that substitution is made)

Other courses as directed in consultation with the ODL advisor.

Environmental Management

GEO415 Regional Geographic Studies
 GEO440 Field Techniques
 GEO444 Environmental Land-Use Planning
 GEO446 Water Resources Management
 GEO490 Selected Topics
 GEO522 Geoenvironmental Hydrology
 GEO524 The Geologic Environment
 GEO528 Geography of Economic and Environmental Systems
 GEO532 Disease and the Environment
 GEO536 Problems of the Atmospheric Environment
 GEO542 Land-Use Regulations
 GEO594 Selected Topics

Other courses as directed in consultation with the ODL advisor.

Higher Education Structure and Policy

CNS562 Student Personnel Work in Higher Education
 ESC400 Methods of Coaching (*restricted see ODL advisor*)
 PLS504 Ethics of Public Service Managers
 PLS603 Public Policy Analysis
 PSY516 Motivation
 SOC435 Gender and Leadership
 SOC445 Sexuality and Sexual Orientation
 SOC530 Sociology of Higher Education
 SOC594 Selected Topics
 Other courses as directed in consultation with the ODL advisor.

Historical Administration

HIS433 Oral History
 HIS501 Introduction to Applied History
 HIS502 Introduction to Archives
 HIS505 Advanced Topics in Public History
 HIS513 Seminar in U.S. Women's History
 HIS515 Seminar in 20th Century U.S. Social History
 HIS594 Selected Topics
 HIS599 Readings in History
 HIS600 Computerized Historical Research Methods OR
 HIS601 Research in Local and Regional History (*ODL students in this concentration are advised to select one of these courses to replace PLS601 in core; an additional concentration course will be necessary if that substitution is made*)

Other courses as directed in consultation with the ODL advisor.

Individual and Organizational Development

PSY512 Theories of Learning
 PSY515 Theories of Personality
 PSY519 Life Span Psychology
 PSY529 Psychology of Successful Aging
 PSY533 Advanced Social Psychology
 PSY565 Human Factors
 PSY590 Introduction to Group Dynamics
 PSY595-PSY597 Selected Topics
 Other courses as directed in consultation with the ODL advisor.

Management Information Systems

ISS515 Information Systems project management
 MBA547 Management Information Systems and Applications
 ISS550 Database Design
 ISS570 Information Analysis

Additional courses are available with the approval of the program director.

Public Organizations

PLS502 Human Resources Management
 PLS504 Ethics for Public Service Managers
 PLS511 State Government
 PLS 512 Intergovernmental Relations and Programs
 PLS561 Administrative Law
 PLS591 Selected topics
 PLS603 Public Policy Analysis
 Other courses as directed in consultation with the ODL advisor.

Social Structures and Organization

SOC410 Family and Society
 SOC435 Gender and Leadership
 SOC445 Sexuality and Sexual Orientation: A Social Approach
 SOC490 Selected Topics
 SOC530 Sociology of Higher Education
 SOC594 Selected Topics
 Other courses as directed in consultation with the ODL advisor.

Applied Experiences (6 crs.)

All students must fulfill the capstone experience that requires completion of a 3-credit internship in some administrative capacity within their concentration area. The internship is ideally taken simultaneously with the Applied Leadership and Organizational Analysis course where students will complete an organizational analysis project.

John L. Grove College of Business

John G. Kooti, Ph.D., Dean, John L. Grove College of Business
(717-477-1435)

Anthony Winter, D. Ed., Associate Dean, John L. Grove College of
Business (717-477-1620)

Robert Stephens, Ph.D., MBA Director (717-477-1684)

Justin English, MBA Director of Internships and MBA Recruiting
(717-477-1351)

Larry Bitner, D.B.A., Accounting

Sarah Bryant, Ph.D., Finance

Louise Hatfield, Ph.D., Management

Jonathan Kohn, Ph.D., Supply Chain Management

Shelley Morrisette, Ph.D., Management

Vicki Taylor, Ph.D., H.R. Management

Robert Stephens, Ph.D., Management

Joanne Tucker, Ph.D., Supply Chain Management

Business Administration (MBA)

The Ship MBA program offers high quality and outstanding value. Our AACSB accredited MBA program, taught by highly qualified faculty, will help you develop the knowledge and skills you need to succeed in a rapidly changing global economy. Our graduate students find the Ship MBA convenient, reputable, and affordable.

Part-time

The Ship MBA program is delivered in several convenient formats and locations in south central and eastern Pennsylvania including Shippensburg, Harrisburg, York, and East Stroudsburg. The Ship MBA Professional format is a part-time program offered in the evening with online and web components and can be completed in two years by taking two courses a semester on one night a week. Video conferencing technology provides students with the opportunity to attend class at either Shippensburg University, Dixon University Center in Harrisburg, the York Learning Center, or at East Stroudsburg. Two-thirds of each course is taught in an electronic classroom and delivered via video conferencing technology through Shippensburg University to the Harrisburg, York, and East Stroudsburg locations, thus providing students the opportunity to interact with the professor and other students face-to-face from multiple sites. Students spend two-thirds of their class time in the electronic classroom and one-third on web-based activities, providing students with flexibility and convenience in completing their course work. Each class meeting is digitally recorded, so that when students cannot attend class due to work requirements, they may view the missed classes online via video streaming. Employers desiring to have their electronic conference room added as a video conferencing site for the Shippensburg M.B.A. should contact the M.B.A. office.

Full-time

The Ship MBA Emerging Leaders cohort is a full-time program, which offers day classes and the opportunity for a business practicum. Designed for recent college graduates, this one-year cohort program combines classroom study with an optional business practicum that provides students the opportunity to gain meaningful professional experience while extending their studies at the graduate level. Students will attend classes all day on Wednesday in Harrisburg or Shippensburg allowing for a Business Practicum to be scheduled according to

student and employer needs. The cohort format encourages camaraderie and support among classmates since the same group of students moves through the degree program together.

Online

The Ship MBA is also delivered in a convenient 100 percent online format. Online courses allow students more flexibility in scheduling their time, but each course also includes optional opportunities to interact with the faculty member and other students directly through web-conferencing. Some exams may be proctored and require students to arrange an appointment at an approved proctoring site. Students can complete the entire program in an online format on a part-time basis in two years.

The John L. Grove College of Business is accredited by AACSB International, which certifies the quality of the curriculum, faculty, and support services. The program consists of 10 courses (30 credits), which includes 8 core courses and 2 elective courses. The core courses cover critical elements of business management in today's technologically advanced and global business environment. The course sequence is flexible, as most core courses do not have prerequisites beyond the basic requirements to enter the M.B.A. program.

Admission Requirements

Undergraduate course work and degree, relevant work experience, essay, and GMAT score will be evaluated and form the basis for admission. To be eligible for admission to the M.B.A. program applicants must:

- Have a baccalaureate degree from a regionally accredited college or university.
- Provide a GMAT score. This requirement is waived if the applicant have five (5) years or more of relevant work experience.
- Present a current résumé.
- Present a goals essay of 500 words.

In addition, applicants are required to meet the following prerequisites:

- Work experience or undergraduate credits in:
 - Quantitative analysis,
 - Computer usage, and
 - Oral and written communications.

These areas are covered in the following courses offered at Shippensburg University:

ENG101 College Writing
SCM200 Statistical Applications in Business
MIS142 Business Computer Systems
HCS100 Basic Oral Communication

- Prerequisite knowledge in accounting, economics, finance, or organizational behavior, marketing, and operations management.

These areas are covered in the following courses offered at Shippensburg University:

BSN510 Economics and Information Systems Environment
BSN511 Business Operations and Analysis
BSN512 Essentials of Accounting and Finance
BSN513 Organizational Behavior and Marketing

CORE COURSES (24 credits)

MBA502 Managerial Accounting
MBA529 Global Managerial Finance
MBA552 Entrepreneurship
MBA554 International Business
MBA556 Organizational Leadership
MBA565 Information Management and Analysis for Decision Making
MBA577 Supply Chain Management
MBA593 Strategic Management

ELECTIVE COURSES (6 credits)

MBA532 Marketing Research
MBA533 Business Operations and Logistics Planning
MBA534 Buyer Behavior

MBA547 Management Information Systems and Applications
 MBA548 IT Management and Innovation
 MBA577 Negotiation
 MBA558 Ethics and Sustainability
 MBA561 Human Resources and Development
 MBA570 Marketing Management
 MBA571 International Marketing Management
 MBA572 Marketing in a Technological Environment
 MBA575 Global Supply Chain Management
 MBA594 Selected Topics
 MBA595 Selected Topics
 MBA596 Business Practicum
 MBA599 Independent Studies
 Other Electives from Arts and Science and Education (*pending approval of MBA Director*)

For more information contact: (717) 477-1483; mba@ship.edu.

Certificate of Advanced Studies in Business

The Certificate of Advanced Studies in Business allows professionals from various backgrounds to learn how management principles can be applied in any business or organization. Professionals will select four courses from five offerings that teach the essentials of business management and cover such topics as financial and operations management, employee and customer relations, external economic environment, and strategic direction and leadership.

These courses will also meet the needs of professionals who wish to earn an M.B.A. but lack the necessary course prerequisites. A 16-credit program designed for working professionals who have an undergraduate degree in an area other than business and wish to gain business knowledge for personal or career advancement.

Each course is:

- 4 credits
- Limited to 20-25 students
- 100 percent distance education: 50 percent video-conferencing and 50 percent online.

Courses (4 crs. each)

BSN510 Economics and Information Systems Environment
 BSN511 Business Operations and Analysis
 BSN512 Essentials of Accounting and Finance
 BSN513 Organizational Behavior and Marketing
 BSN514 Strategic Management and Leadership

Admission Requirements

Applicants must:

- Have a bachelor's degree from an accredited institution.
- Submit a completed application.
- Have official undergraduate and graduate (if applicable) transcripts sent to Shippensburg University.

There is no admission fee for the certificate program. Applications must be submitted no later than the completion of 8 credits in the program.

Registration

For registration information please go to ship.edu/Extended/Registration_Information/. For tuition information please go to ship.edu/Student_Accounts.

If you are receiving financial assistance from your employer to pay your tuition and/or fees, please be sure to review and complete the necessary form at: ship.edu/Student_Accounts/Forms.

M.B.A. Option

Option to transfer to M.B.A. program:

- BSN 510, 511, 512, and 513 may be used to satisfy M.B.A. prerequisite/foundation requirements.

- Those individuals who earn a certificate with a 3.0 or better in each course, and have taken 510, 511, 512, and 513 may apply to the M.B.A. without taking the GMAT, and will be accepted based on space availability, if they have a baccalaureate degree from an accredited college or university.
- Application to the M.B.A. program must be made no later than the completion of 12 credits.

Graduate Certificate of Management Information Systems

Admittance to this post-baccalaureate certificate is open to individuals who have earned at least a bachelor's degree from an accredited institution and have an interest in the information technology certificate.

The Graduate Certificate of Management Information Systems program is designed to meet the needs of working professionals and can be completed in one year. Video-conferencing technology provides student with the opportunity to attend class at either Shippensburg University or Dixon University Center in Harrisburg. Additional location sites are being considered for the future. One-half of each course is taught in an electronic classroom and broadcast to the remote site via video-conferencing technology, thus providing students the opportunity to interact with the professor and other students face-to-face from multiple sites. Students spend one-half of their class time in the electronic classroom and one-half on web-based activities, providing student with flexibility and convenience in completing coursework.

The 12 credit-hour program is offered via a combination of face-to-face evening instruction and online using video-conferencing broadcast between Shippensburg to Dixon Center (dependent upon availability of ITV room). Students will be able to complete the program by taking one course in fall, one in spring, and two in summer. Students interested in pursuing an MBA degree at Shippensburg University can apply two of the MIS certificate courses toward meeting the MBA elective requirement. Each course is:

- 3 credits
- Delivered via a combination of face-to-face, video-conferencing technology and online
- Limited to 25 students
- Offered throughout the calendar year enabling students to easily complete the certificate in one year

Courses (3 crs. each)

ISS515 Information Systems Project Management
 ISS550 Database Design
 ISS570 Information Analysis
 MBA547 Management Information Systems and Applications

Admission Requirements

Applicants must:

- Have earned a bachelor's degree from an accredited institution
- Submit a completed application
- Have official undergraduate and graduate (if applicable) transcripts sent to Shippensburg University

There is no admission fee for the certificate program. Applications must be submitted no later than the completion of 6 credits in the program.

Registration

For registration information please go to ship.edu/Extended/Registration_Information/. For tuition information please go to ship.edu/Student_Accounts.

If you are receiving financial assistance from your employer to pay your tuition and/or fees, please be sure to review and complete the necessary form at: ship.edu/Student_Accounts/Forms.

College of Education and Human Services

James R. Johnson, Ph.D., *Dean, College of Education and Human Services (717-477-1373)*

Counseling and College Student Personnel Department

Kurt L. Kraus, Ed.D., *Acting Chair (477-1668)*

Clifford W. Brooks, Jr., Ed.D.

Andrew L. Carey, Ph.D.

Marcy J. Douglass, PhD

Shirley A. Hess, Ph.D.

Rose Merrell-James, Ed.D.

Kathryn Newton, Ph.D.

Todd K. Whitman, Ph.D.

Department Mission and Student Learning Goals

The mission of the Department of Counseling and College Student Personnel, as an entity of Shippensburg University, its Graduate School, and the College of Education and Human Services, is to develop students' academic and personal potential through a comprehensive counselor education program for graduate counseling and college student personnel students and through multi-faceted counseling services for all university students. The department's mission integrates the principles of a meaningful learning environment, professionalism, and individual responsibility. It strives to be a respected leader in the promotion of dignity, acceptance, and collaboration within the Shippensburg University campus environment.

Specifically, it seeks to graduate highly skilled practitioners in counseling and college student personnel by utilizing experiential learning opportunities in an atmosphere of intellectual, investigative, and creative scholarly curiosity. The department nurtures students to become congruent lifelong learners, noble practitioners, and leaders in the profession who embrace scientific inquiry, technology, and innovative practices. Through authentic relationships with invested faculty who model intentional practice based firmly in theory and cultural advocacy, students develop the knowledge and skills necessary to be purposeful, effective practitioners with a strong sense of personal and professional identity.

Goals:

- Students will become professionally oriented and practice ethically.
- Students will become knowledgeable about the cultural context of the practice of counseling and college student personnel and advocate for its inherent value in practice.
- Students will comprehend the importance of theories and models of growth and development across the life-span in the counseling and college student personnel professions.
- Students will become knowledgeable of the lifelong career development process and its relationship with wellness, identity, and life satisfaction.
- Students will become skilled counselors and college student personnel professionals who counsel, supervise, advocate, consult, collaborate, and coordinate.

- Students will develop theoretical and experiential understandings of group purpose, development, dynamics, counseling theories, and methods and skills pertinent to facilitating groups (i.e., task/work groups, psycho education groups, and counseling and psychotherapeutic groups).
- Students will become competent in the ethical use of individual, group, and environmental approaches to assessment, measurement, and evaluation.
- Students will understand and apply research methods, quantitative and qualitative analyses, needs assessments, and program evaluations.
- Students will learn how to integrate technology into the professional practices of counseling, supervision, and college student personnel.
- Students will be effective professional communicators.

Accreditation

In addition to the accreditations shared with the university, the College Student Personnel, School Counseling, College Counseling, Mental Health Counseling, and School Counseling programs are approved by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA). CACREP approval is a professional standards accreditation that validates the quality of education of counseling and related programs. Accreditation in counseling is closely related to the credentialing process established by the American Counseling Association (ACA). Upon successful completion of the National Counselor Exam, graduates of CACREP approved programs are eligible to become Nationally Certified Counselors without additional supervised experience.

Programs Offered

The Department of Counseling and College Student Personnel offers graduate programs leading to the Master of Education degree in counseling with certification as dual (K-12) school counselor and the Master of Science degree with specialization in college counseling or college student personnel. A 60-hour Master of Science degree with specialization in clinical mental health counseling is also offered.

Admission to Program

All applicants for admission to the Department of Counseling and College Student Personnel program must begin by applying to the Office of Graduate Admissions. The Office of Graduate Admissions will supply the applicant with required departmental application forms.

Admission to the Department of Counseling and College Student Personnel is a process rather than a one-step event. Generally, the admission procedure requires a full academic semester for processing applications, credentials, references, supplemental data form, and the on-campus interview. Students are encouraged to begin this process at least six months prior to the desired starting date. Students must be interviewed and admitted to the counseling department before they will be allowed to enroll in counseling courses.

Applicants for admission to the program must meet the requirements for the specialization and for the Department of Counseling and College Student Personnel in addition to the general requirements for admission to graduate study.

1. Applicants are expected to possess relevant experience prior to admission to graduate study. Applicants to the School Counseling concentration are *expected* to have a minimum of a year's experience working with children (for example, as a teacher, probation officer, child protective services worker, etc.), and a 3.0 QPA in undergraduate degree work.

Applicants to all other concentrations are expected to have a minimum of a year's experience working or volunteering with individuals or groups similar to those individuals that he/she plans to work with upon graduation from the program, and a 2.75 QPA in undergraduate work.

2. For the Clinical Mental Health, College Counseling, and the College Student Personnel Programs, a 2.75 undergraduate QPA is the minimum for admission. If applicants to these programs have less than a 2.75, they must successfully complete the Graduate Record Exam (GRE) or Miller Analogies Test (MAT).

For the School Counseling Program, a 3.0 undergraduate QPA is the minimum as required by the Pennsylvania Department of Education. Completing the GRE or MAT is, therefore, not an option for applicants to the Elementary or Secondary School Counseling programs.

Applicants are required to submit a résumé, three references on department forms, and supplemental data forms. If the applicant meets the initial requirements, the Admission Committee will invite the applicant for a group interview. The applicant will be notified by mail of this decision. During the group interview, each student's social skills will be observed.

Students applying to the school counseling program must pass the Pre-Professional Skills Tests (reading, writing, and mathematics) required by the Pennsylvania Department of Education. Successful candidates to the school counseling program will be provisionally accepted until they pass these tests. Provisional acceptance allows students to register for courses, but will only remain valid until the time of candidacy at the end of Phase I. If students have not passed these three tests by the time of candidacy, they will be dismissed from the program.

Because counseling and personnel work include a variety of experiences in practicum, internship, or other clinical experiences, the student's effectiveness and suitability for the program will be subject to an ongoing and broad-based evaluation by faculty and/or field supervisors. Decisions regarding continuance of studies will be predicated on a combination of factors such as demonstrated clinical skills and other relevant professional competencies in addition to grades in course work.

Under certain conditions, a counseling department committee may ask students to do one or more of the following:

1. Interrupt their program for a specified period of time.
2. Engage in a therapeutic relationship with a qualified mental health specialist for the purpose of remediation or for the purpose of decreasing behaviors that detract from the ability to provide a constructive helping relationship with others.
3. Submit for review additional supportive evidence that demonstrates competence in the skill areas deemed deficient via presentations of skills.
4. Limit enrollment to those courses that do not have a significant experiential component for a specified period of time.

Admission to Candidacy

1. All candidates must apply through the department for admission to candidacy. This should be done during the semester CNS585 Practicum is scheduled.
2. The purposes of candidacy are to ensure students are integrating material from the classroom to real-life experiences, to verify professional goals are specific and focused, to determine if students have formulated a realistic view of what they need to do to become effective professionals, and to ensure students can express themselves regarding controversial issues in the field.
3. Candidates are evaluated with respect to aptitude, competency, and potential for completing the requirements of their requested program.
4. Specific procedures for admission to candidacy are outlined in the Department of Counseling and College Student Personnel's *Student Manual* made available on line at ship.edu/counsel/.

Certification in Counseling

The Department of Counseling and College Student Personnel offers a graduate program leading to certification in school counseling.

Completion of the appropriate program in counseling is required for certification. A quality point average of 3.0 must be maintained. Additionally, a grade of B or better must be earned in CNS578 Pre-Practicum, CNS585 Practicum, and CNS580/589 Field Experience I and II, to qualify for continuation in the program and department endorsement for certification.

Licensure in Counseling

The Department of Counseling and College Student Personnel offers a 60-hour graduate curriculum that enables students to become eligible for licensure as a professional counselor in Pennsylvania.

Counseling (M.S.)

The Master of Science degree with specialization in counseling has been designed to meet the needs of students whose backgrounds and aspirations vary. Its orientation is toward persons who are preparing for service in areas such as community mental health agencies, hospitals, college counseling centers, and student affairs and higher education. Therefore, completion of the Master of Science degree will not lead to certification as a school counselor. A minimum of 48 to 60 semester hour credits is required for completing the degree. A common core curriculum provides each student with a common base of substantive and experiential knowledge. The remaining credits are taken in an area of emphasis that has been planned with the assistance of an advisor.

Students in this counseling program must select, with departmental approval, an area of emphasis from the following:

- **College Counseling**—This concentration prepares counselors to work in therapeutic settings at colleges, universities, and community colleges.
- **College Student Personnel**—This concentration provides preparation for persons who plan to work as student affairs educators in colleges, universities, or community colleges.
- **Clinical Mental Health Counseling**—This concentration is designed to prepare students to work in therapeutic mental health settings with an emphasis on assessment, diagnosis, and direct counseling services.

College Counseling Concentration

REQUIRED COURSES (48 crs.)

Courses are organized into three phases and should be taken in that order. The sequence within each phase should be followed as closely as possible. Consultation with an advisor on a regular basis is required as a student progresses through the program. Students must apply for admission to candidacy the semester they are enrolled in Practicum.

Phase I (Required by all students) 15 crs.

CNS559 Introduction to Helping Services
 CNS600 Research and Statistics
 CNS515 Career Development
 CNS519 Implications of Human Development for Counseling
 CNS578 Pre-Practicum in Counseling

Phase II 27 crs.

CNS585 Practicum in Counseling
 CNS522 Assessment Techniques in Counseling
 CNS509 Multicultural Counseling
 CNS573 Theories of Counseling
 CNS512 Group Counseling Leadership Skills
 CNS560 Introduction to College Personnel Work
 CNS565 The College Student and the College Environment
 CNS588 Counseling Strategies and Techniques
 CNS524 The DSM and Psychopathology for a CNS Perspective

Phase III 6 crs.

CNS580 Clinical Field Experience I
 CNS589 Clinical Field Experience II
 Additional classes may be taken with approval of advisor
 Minimum = 48 crs.

College Student Personnel Concentration

REQUIRED COURSES (48 crs.)

Courses are organized into three phases and should be taken in that order. The sequence within each phase should be followed as closely as possible. Consultation with an advisor on a regular basis is required as a student progresses through the program. Students must apply for admission to candidacy during the semester they are enrolled in Practicum.

While it is possible to complete the program as a part-time student, several of the advanced courses meet in the late afternoon, and most of the practicum and Field Experience sites require the student be available during the day.

Phase I (Required by all students) 12 crs.

CNS559 Introduction to the Helping Services
CNS600 Research and Statistics
CNS515 Career Development
CNS578 Pre-Practicum in Counseling

Phase II 24 crs.

CNS585 Practicum in Counseling
CNS522 Assessment Techniques in Counseling
CNS509 Multicultural Counseling
CNS512 Group Counseling Leadership Skills
CNS560 Introduction to College Personnel Work
CNS565 The College Student and the College Environment
CNS587 Advanced Research Seminar in Counseling
Leadership Elective

Phase III 12 crs.

CNS562 Student Personnel Work in Higher Education
CNS580 Clinical Field Experience I
CNS589 Clinical Field Experience II
Elective

Minimum = 48 crs.

In addition to the for credit courses, each student majoring in College Student Personnel is required to complete a research project during the program. The proposal for the study is completed during the CNS600 research course that should be taken during the first semester of full-time study. Work on the project will be continued in CNS587, Advanced Research Seminar in Counseling. The completed project must be submitted to the student's advisor one month prior to graduation.

Clinical Mental Health Counseling Concentration

REQUIRED COURSES (60 crs.)

Courses are organized into three phases and should be taken in that order. The sequence within each phase should be followed as closely as possible. Consultation with an advisor on a regular basis is required as a student progresses through the program. Students must apply for admission to candidacy the semester they are enrolled in Practicum.

Phase I (Required by all students) 18 crs.

CNS559 Introduction to Helping Services
CNS578 Pre-Practicum in Counseling
CNS568 Professional Orientation to Mental Health Counseling
CNS573 Theories of Counseling
CNS512 Group Counseling Leadership Skills
CNS524 The DSM and Psychopathology for a CNS Perspective

Phase II 27 crs.

The following courses must be taken prior to enrolling in Clinical Field Experience I:

CNS585 Practicum in Counseling
CNS588 Counseling Strategies and Techniques
CNS510 Drug and Alcohol Counseling
CNS508 Marital, Couple, and Family Counseling

The following courses must be taken anytime during the program:

CNS509 Multicultural Counseling
CNS600 Research and Statistics
CNS515 Career Development
CNS519 Implications of Human Development for Counseling
CNS522 Assessment Techniques in Counseling

Electives 6 crs.

Two of the following electives may be taken at anytime during Phase II or III in the program:

CNS564 Grief and Loss Issues in Counseling
CNS567 Counseling Children
CNS 570 Working with Dreams, Sandtray and Music

Phase III 9 crs.

Clinical Field Experiences I and II must be taken sequentially in the Mental Health Counseling concentration.

CNS580 Clinical Field Experience I
CNS589 Clinical Field Experience II
CNS590 Advanced Clinical Field Experience

Minimum = 60 crs

Counseling (M.Ed.)

Generally 60 credit hours are required for completion of the Master of Education degree with specialization in school counseling. However, students who are already Pennsylvania certified teachers maybe exempt from nine credits.

Dual (K-12) School Counseling (M.Ed. and certification)

REQUIRED COURSES (51-60 crs.)

Courses are organized into three phases and should be taken that order. The sequence with each phase should be adhered to as closely as possible. Consultation with an advisor on a regular basis is required as a student progresses through the program. A student must apply for admission to candidacy during the semester he or she is enrolled in Practicum.

Phase I 27 crs.

CNS504 Introduction to School Counseling
CNS559 Introduction to Helping Services
CNS515 Career Development
CNS519 Human Development for Counseling
CNS578 Pre-Practicum in Counseling
CNS600 Research and Statistics
EEC526 *Working with Students with Exceptionalities
ELP516 *Curriculum, Assessment and Instructional Pk-12 for Diverse Student Populations
RDG413 *Teaching Reading to ELL

*(*Students who are already PA-certified teachers and have this coursework completed may be exempt from this course.)*

NOTE: All students MUST complete the three (3) subtests of the PRAXIS I PPST (i.e., reading, math, writing) prior to Candidacy.

Phase II 24 crs.

CNS585 ^Practicum in Counseling
CNS573 Theories of Counseling
CNS522 Assessment Techniques in Counseling
CNS512 Group Counseling Leadership Skills
CNS509 Multicultural Counseling
CNS505 Organization and Administration of School Counseling Services
CNS588 Counseling Strategies & Techniques
CNS567 Counseling Children

Phase III 6 crs.

CNS580 ^Clinical Field Experience I
CNS589 ^Clinical Field Experience II

(^ denotes mandatory attendance at Practicum/Field Orientation the prior semester & pre-registration)

Electives**3 crs.**

*** Choose one from the following:

CNS508 Marital, Couple & Family Counseling
 CNS510 Drug and Alcohol Counseling
 CNS524 The DSM & Psychopathology from a CNS Perspective
 CNS564 Grief and Loss Issues in Counseling
 CNS570 Working w/Dreams, Sandtray & Music

Minimum = 51-60 hours

***Certification as a School Counselor by the PA Dept. of Education requires successful completion of the School Counseling PRAXIS Exam (#0420).*

Students should register for and take this test toward the end of their course of study, ideally following CNS589 and CNS505.

**** Please note: Not all courses are offered each semester. Check the master schedule to determine offerings and availability found at <http://ship.edu/counsel>.*

Supervisor of School Guidance

For information concerning the post-master's degree program leading to Pennsylvania certification as a supervisor of school guidance services, refer to the Department of Educational Leadership and Special Education.

Criminal Justice Department

Chair - Vacant (717-477-1156)

Thomas L. Austin, Ph.D.

Matthew D. Fetzer,

Billy W. Henson,

Stephanie A. Jirard, J.D.

John H. Lemmon, Ph.D.

E. Britt Patterson, Ph.D.

Laura A. Patterson, Ph.D.

Melissa L. Ricketts, Ph.D.

Admission Requirements

Applicants for admission to graduate study with specialization in administration of justice will be expected to have completed an undergraduate program in criminal justice or a closely related allied field. Admission is based on a 2.75 or better undergraduate quality point average or satisfactory scores on the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT).

Mission

The Department of Criminal Justice offers two programs of graduate study, each of which lead to the Master of Science degree in administration of justice. The evening program on-campus is designed for both pre- and in-service students pursuing graduate study under a traditional format. The weekend program is designed specifically for juvenile probation officers employed in the Commonwealth of Pennsylvania. A minimum of 36 semester hours of graduate level credits is required to complete each program.

As the systems designed to deliver justice services are continually asked to function effectively in an increasingly complex society, the need for capable criminal justice professionals becomes more and more pressing. The mission of the Department of Criminal Justice graduate programs is to provide current and future criminal justice professionals with the background and skills that will enable them to think critically about the problems of crime and justice and to be effective decision makers in the criminal justice arena. Central to achieving this mission is an integrated program of study designed to provide graduate students with the knowledge and skills to undertake independent, critical investigation of issues related to crime control and justice policy.

The specific objectives of the Department of Criminal Justice's graduate programs are to:

1. Develop an academic environment that will be intellectually challenging and stimulating to both student and faculty.
2. Foster a commitment to pursuing the activities of education, scholarship, and public service in a manner that is consistent with the intellectual traditions of social science inquiry.
3. Provide an intellectual environment that values human diversity and encourages independent and critical thought.
4. Provide an intellectual environment that encourages teaching and scholarship from a diversity of theoretical perspectives and research methodologies.
5. Provide graduate curricula that will provide the knowledge and skills fundamental to criminal justice professionalism.
6. Provide a sound foundation for the pursuit of a doctoral degree in criminal justice.
7. Provide the opportunity for students who are currently criminal justice professionals to extend their knowledge and skills in their area of specialization.
8. Develop professional leadership in the criminal justice field.
9. Introduce students to the research techniques that will enable them to undertake independent research in their areas of specialization and effectively interpret and make use of the research conducted by other professionals.
10. Provide an understanding of the relationship between public policy formulation and criminal justice system behavior.
11. Provide individuals and agencies within the college's service area with needed programs and consultant services appropriate to the resources of the department.

Administration of Justice (M.S.)**REQUIRED CORE COURSES (24 crs.)**

CRJ501 Foundations of Justice
 CRJ520 Justice Administration and Management
 CRJ550 Graduate Seminar
 CRJ560 Theories of Crime and Delinquency
 CRJ590 Justice Policy Analysis
 CRJ600 Research Methods
 CRJ610 Quantitative Analysis
 CRJ635 Restorative Justice

CRIMINAL JUSTICE ELECTIVES (12 crs.)

CRJ570 Legal Trends and Issues
 CRJ580 Juvenile Justice System
 CRJ585 Treatment and Rehabilitation
 CRJ593 Independent Study
 CRJ594 Selected Topics
 CRJ595 Practicum I
 CRJ597 Practicum II
 CRJ612 Thesis I
 CRJ613 Thesis II
 CRJ617 Internship I
 CRJ618 Internship II

INTERDISCIPLINARY COURSE(S) (3-9 crs.)

With Department of Criminal Justice approval, and providing the student meets the requirements of the department offering the course, courses numbered 500 and above can be taken from one or more of the following: Counseling and College Student Personnel, Educational Leadership and Special Education, Government/Public Administration, History, and Psychology. These may be substituted for Criminal Justice electives up to a maximum of nine (9) credits.

Educational Leadership and Special Education Department

Gerald L. Fowler, Ph.D., *Chair* (477-1591)
 David F. Bateman, Ph.D.
 Phillip F. Diller, Ed.D.
 Corinne E. Eisenhart, Ph.D.
 Christopher L. Schwilk, Ph.D.
 Cheryl H. Zaccagnini, Ed.D.

Programs Offered

The Department of Educational Leadership and Special Education offers graduate programs leading to the Master of Education degree in educational leadership, which includes certification of K-12 principals and post-master's degree programs leading to the certification of K-12 principals, the Superintendent's Letter of Eligibility. The department also offers post-master's degree programs leading to the Supervisory I Certificate in twelve fields of specialization. In special education there are programs that lead to Pennsylvania certification in special education along with programs leading to master's degree in learning disabilities, behavioral disorders, and mental retardation. Applicants who do not have an overall quality point average of 2.75 or greater will be required to schedule a personal interview with the Department of Educational Leadership and Special Education prior to admission to the degree program.

Students matriculating for a degree and/or certification in educational leadership at Shippensburg University shall be given preference for class seats over students not enrolled in a graduate program in educational leadership when the demand for a particular class exceeds the class enrollment.

Students in educational leadership programs are required to take courses in a specified sequence. Program plans are designed for each student by department faculty as part of the admissions process.

In those programs that include clinical components, practicums, and/or internships, each student's effectiveness and suitability for the program will be given a broad-based evaluation by faculty and/or supervisors. Final decisions regarding continuance of studies will be predicated on a combination of factors as demonstrated clinical competence, personal interaction skills, judgment, and other relevant issues related to school leadership in addition to course grades.

Admission Requirements

In addition to the regular requirements for admission to graduate classes, the applicant for admission to graduate study in educational leadership must have an instructional or educational specialist certificate. The applicant must obtain from the Department of Educational Leadership and Special Education and have executed two reference forms. One recommendation must be completed by a chief school officer (district superintendent or intermediate unit executive director) in the school in which the candidate is currently employed or has been most recently employed. The second reference must be either from a principal or immediate supervisor. In addition, a signed copy of the memorandum of understanding for practicum and mentoring must also be completed. The recommendation of the chair of the educational administration program will be given following a review of the applicant's credentials. Admission to graduate study does not guarantee subsequent admission to candidacy for the master's degree.

In order to complete a program of study leading to the Master of Education degree, the student must apply for and be admitted to candidacy for the degree.

1. The student shall file an official application for admission to candidacy with the Department of Educational Leadership and Special Education upon the completion of at least 6 and not more than 12 semester hour credits of graduate work at this institution.
2. The applicant shall have completed at least two years of successful teaching experience in elementary, middle, or secondary schools, or have had other professional experience in education.

3. The applicant shall have maintained a quality point average of not less than 3.0 (equivalent to an average of B with no more than one C) in completed graduate courses.
4. Recommendation for admission to candidacy will be determined by department faculty following an interview by a committee of faculty members and may include mentors or other supervisors from the candidate's school district. Judgments will involve consideration of the academic record, interview interaction, written exercise, and letters of recommendation.

The Educational Leadership program has two options for students pursuing a master's degree in school administration. The first option, recommended for students who plan to pursue a doctorate in educational leadership, involves writing a thesis as part of a three-credit course. The second option does not include the thesis. Students should schedule a conference with an advisor and carefully consider the two options in light of personal career plans.

School Administration (M.Ed. includes Principal Certification)

The program course work is organized into three tiers. Tier 1 courses represent work appropriate for the beginning or introductory phase of a student's program. Tier 2 indicates courses that are appropriate for students who are midway in their programs. Tier 3 courses are for more advanced work and come with the expectation that students have a strong background from Tier 1 and Tier 2 work in order to be successful.

Courses do not follow a strict prerequisite model but must be scheduled using Approved Individual Student Program Plans as follows:

- Beginning Level (Tier 1) students should schedule Tier 1 courses but may elect a Tier 2 course if none are available. Tier 1 students are not eligible to take Tier 3 courses.
- Tier 2 Level students may schedule courses from Tier 1 and Tier 3.
- Tier 3 Level students may schedule courses from all Levels.

A student is considered a Tier 1 Level student when he/she enters the program. A student advances to the subsequent Tier when he/she completes all of the required courses in the preceding Tier. Tier 1 students who, because of scheduling difficulty need to select a course from Tier 2, must seek advice from their advisors.

Minimum 33 semester hour credits required.

Required Educational Leadership Core Courses

- Tier 1 ELP515 The Role of Research and Data Informed Decision-Making for School Leaders
- Tier 2 ELP517 Leadership in Technology and Effective Program Delivery
- Tier 3 ELP569 Seminar: Diversity in Education

Required Pennsylvania Inspired Leadership Core Courses

- Tier 1 ELP514 Practicum I Leadership Field Experiences at the Building Level
- Tier 1 ELP516 Curriculum Assessment and Instruction PK-12 for Diverse Student Populations
- Tier 2 ELP518 The Role of Supervision in Promoting Student Achievement
- Tier 2 ELP519 Advanced Leadership and the School Principal PK-12
- Tier 3 ELP520 School Finance and Student Learning
- Tier 3 ELP521 Legal and Ethical Issues that Impact on Student Learning
- Tier 3 ELP522 Practicum II Advanced Leadership Field Experiences at the Building Level

Electives (3 crs.)

- Tier 1 ELP500 General School Administration
- Tier 1 PSY527 Studies in the Psychology of Adolescence
- Tier 1 TCH575 Child Development

Tier 2 ELP490 Selected Topics in School Leadership
 Tier 3 ELP510 Special Education Law
 Tier 3 ELP580 Statistical Methods in Education
 Tier 3 ELP620 Thesis
 Tier 1-3 Advisor Pre-Approved ELP 600 Level Courses

The master of education degree program requires 33 total credit hours, which includes 440 apprenticeship hours. Student must advance to candidacy upon completion of 6 and not more than 12 semester hour credits of graduate work at Shippensburg University.

Principal Certification Programs

Post-Master's Degree Curricula Leading to Certification of K-12 Principals

Applicants for admission to the post-master's degree certification program leading to certification as a K-12 principal shall file with the Dean of Graduate Admissions an application for admission.

1. The applicant shall present a copy of the applicant's teaching certificate and evidence of three years of successful teaching experience in elementary, middle, or secondary schools.
2. Applicants who did not complete the Master of Education degree in educational leadership at Shippensburg University shall also provide official transcripts sent to the dean of Graduate Admissions by any institution at which the applicant has taken undergraduate or graduate work. Applicants must obtain from the Department of Educational Leadership and Special Education and have executed two reference forms. These forms may be obtained by contacting the Department of Educational Leadership and Special Education. One recommendation must be completed by a chief school officer (district superintendent or intermediate unit executive director) in the school in which the candidate is currently employed or has been most recently employed. The second reference must be either from a principal or immediate supervisor.
3. Applicants must submit a completed Apprenticeship Application and Practicum Memorandum of Understanding between their school district and the educational leadership program.
4. Recommendation for admission to the certification program will be determined by the faculty in the Department of Educational Leadership and Special Education.

Policies for the Certification Program

1. A minimum of five years of professional school experience is required for the Administrative I certificate.
2. A B average must be maintained for the credits required for certification, with not more than one C grade included.
3. Courses or prescribed experiences may be repeated only with the approval of the student's advisor, the chair of the Department of Educational Leadership and Special Education, and the dean of the College of Education and Human Services.
4. Prescribed experiences for the certification program must be completed within a three-year period. This requirement will apply unless an extension is granted for extenuating circumstances by the department and the dean.
5. Individuals pursuing principal certification who have not gone through a candidacy review for the master's degree with the Department of Educational Leadership and Special Education at Shippensburg University may be required to complete an interview. If required, this review must be conducted after completion of six to nine hours of course work.
6. It is essential the student work closely with his or her advisor throughout the program. A student is required to complete 15 credit hours at Shippensburg University in order for the department to recommend him/her for certification.
7. The practicum experiences will be individually prescribed programs based upon Pennsylvania Department of Education competencies of the program and the experiences of the candidate. Arrangements for practicum should be made one year in advance.

8. Pennsylvania Department of Education requires a passing score on Praxis: Educational Leadership, Administration and Supervision.

Post-Master's Degree Certification Program for School Principals

A minimum of 15 semester hour credits is required as outlined below. A candidate who has completed a master's degree other than the Master of Education degree in educational leadership at Shippensburg University will not be required to complete a second master's degree; however, his or her program may need to include additional courses identified as necessary to attain the required competencies.

The program course work is organized into three tiers. Tier 1 represents work appropriate for the beginning or introductory phase of a student's program. Tier 2 indicates courses that are appropriate for students who are midway in their programs. Tier 3 courses are for more advanced work and come with the expectation that students have a strong background from Tier 1 and Tier 2 work in order to be successful.

Courses do not follow a strict prerequisite model but must be scheduled using Approved Individual Student Program Plans as follows:

- Beginning Level (Tier 1) students should schedule Tier 1 courses but may elect a Tier 2 course if none are available. Tier 1 students are not eligible to take Tier 3 courses.
- Tier 2 Level students may schedule courses from Tier 1 and Tier 3.
- Tier 3 Level students may schedule courses from all levels.

A student is considered a Tier 1 Level student when he/she enters the program. A student advances to the subsequent Tier when he/she completes all of the required courses in the preceding Tier. Tier 1 students who, because of scheduling difficulty need to select a course from Tier 2, must seek advice from their advisors.

Required Pennsylvania Inspired Leadership Core Courses

- Tier 1 ELP514 Practicum I Leadership Field Experiences at the Building Level
- Tier 1 ELP516 Curriculum Assessment and Instruction PK-12 for Diverse Student Populations
- Tier 2 ELP518 The Role of Supervision in Promoting Student Achievement
- Tier 2 ELP519 Advanced Leadership and the School Principal PK-12
- Tier 3 ELP520 School Finance and Student Learning
- Tier 3 ELP521 Legal and Ethical Issues that Impact on Student Learning
- Tier 3 ELP522 Practicum II Advanced Leadership Field Experiences at the Building Level

Superintendent's Letter of Eligibility Program

The Superintendent's Letter of Eligibility enables the holder, when requested by a district's board of education, to be commissioned by the Commonwealth of Pennsylvania to serve in the following positions: district superintendent, assistant district superintendent, intermediate unit executive director, intermediate unit assistant executive director. Other positions are also authorized under the Superintendent's Letter of Eligibility. Students should consult the Pennsylvania Department of Education for further information.

The program of studies completely satisfies all standards of the Commonwealth and provides the student with the knowledge, competencies, and skills needed to function in roles requiring this certification.

Individuals desiring to pursue this certification will, in all probability, have had considerable graduate course work in educational leadership and/or related fields and more than likely hold certification as a principal or supervisor. Such graduate course work and credit hours shall be considered and credited if applicable toward the requirements for this certification.

The program will be designed, tailored, and individualized to meet the needs of each student seeking this certification. This includes out-of-state candidates whose requirements can be coordinated to meet the requirements of their state of residence. Past academic work and job experiences will be assessed as well as the skills and competencies mastered by the candidate prior to the construction of the candidate's individualized program.

Requirements for Admission to the Superintendent's Letter of Eligibility Certification Program

Applicants must:

1. File an application with the dean of Graduate Admissions for admission to the certification.
2. Hold a master of education degree.
3. Currently hold a Pennsylvania administrative and/or supervisory certificate.
4. Currently serve in a certified administrative/supervisory position.
5. Complete the Apprenticeship Application and Practicum Memorandum of Understanding between their school district and the educational leadership program.
6. Have an official transcript sent to the dean of Graduate Admissions from any institution at which the applicant has taken undergraduate and graduate work.
7. Take a minimum of fifteen (15) credit hours within the Department of Educational Leadership and Special Education at Shippensburg University.
8. Submit two references: One completed by a chief school officer (district superintendent or intermediate unit executive director) in the school in which the candidate is currently employed or has been most recently employed; and one from another school administrator. Obtain forms from the department.
9. Possess a QPA of at least a 3.0 in all graduate work taken prior to application to this program.

Applicants who have satisfied their master's degree and certification requirements at another college or university or earned their advanced degree outside the field of educational leadership at Shippensburg University may be required to successfully complete an oral review conducted by the faculty of the Department of Educational Leadership and Special Education. This review will be conducted after the applicant has taken six (6) hours of graduate work within the department.

Final recommendation for admission to this certification program will be determined by the Department of Educational Leadership and Special Education.

Policies for Completing the Superintendent's Letter of Eligibility Program

1. Minimum of six years of professionally certificated services in the basic schools, three years of which shall have been in supervisory or administrative positions.
2. Maintain at least a B average in all course work, with not more than one C grade included in this average. Obtaining a second grade of C will cause the student to be dismissed from the university.
3. Enroll for a minimum of six graduate credit hours per year.
4. Work closely with advisor.
5. Each student, in addition to completing the course requirements specified on his or her individual program of studies, must demonstrate, through appropriate practicum activities, field experiences, and a written/oral competency exam (exit interview), they have acquired the knowledge, skills, and competencies to render effective leadership in schools and educational institutions. The student's leadership, scholarship, and interpersonal skills shall be monitored most carefully throughout his/her program of studies and during his/her practicum and field experiences.

6. Satisfy all final evaluation policies and procedures established by the Department of Educational Leadership and Special Education for students in the Letter of Eligibility program.

Student Advisement of the Superintendent's Letter of Eligibility Program

1. Department of Educational Leadership and Special Education assigns a faculty advisor for each applicant.
2. The faculty advisor is responsible to promptly meet with the applicant and review the applicant's academic records, degrees, and certification held along with past and present professional experiences. After consulting with the applicant, the advisor shall construct an individualized program of study for each applicant designed to meet the professional needs of the applicant as well as satisfying the requirements for certification by the Pennsylvania Department of Education and the Department of Educational Leadership and Special Education.
3. Faculty advisor shall apprise the applicant of all policies, regulations, and procedures relating to the Letter of Eligibility Program and take the necessary steps to see the applicant fully understands such.
4. It shall be the joint responsibility of the student and the advisor to consult with one another on a regular basis while the student is enrolled.
5. The student should seek the advice and counsel of his/her faculty advisor when the need arises. The faculty advisor is the contact person for any questions or concerns the student may have relating to his/her graduate program at Shippensburg University.
6. The faculty advisor shall be invited to be a member of an oral review panel at the completion of the program.
7. The faculty advisor shall continually review his/her advisee's progress, academic work, and general overall standing and report any concerns to both the student and the Educational Leadership and Special Education Department.
8. The faculty advisor shall be responsible for scheduling a final exit review to ascertain the student has met all the requirements prior to recommending this student for certification.
9. The faculty of the Department of Educational Leadership and Special Education shall review all students' academic records prior to recommending a student to the Pennsylvania Department of Education for the Superintendent's Certification.

Program of Studies for the Superintendent's Letter of Eligibility Program

An individualized program of studies shall be constructed for each student that addresses the standards for this certification.

Depending upon student's prior course work, prerequisite course work may be required in addition to the program of studies described below.

The course work is organized into three tiers. Tier 1 represents work appropriate for the beginning or introductory phase of a student's program. Tier 2 indicates courses that are appropriate for students who are midway in their programs. Tier 3 courses are for more advanced work and come with the expectation that students have a strong background from Tier 1 and Tier 2 work in order to be successful.

Courses do not follow a strict prerequisite model but must be scheduled using Approved Individual Student Program Plans as follows:

- Beginning Level (Tier 1) students should schedule Tier 1 courses but if none are available, may elect a Tier 2 course. Tier 1 students are not eligible to take Tier 3 courses.
- Tier 2 Level students may schedule courses from Tier 1 and Tier 3.
- Tier 3 Level students may schedule courses from all levels.

A student is considered a Tier 1 Level student when he/she enters the program. A student advances to the subsequent Tier when he/she completes all of the required courses in the preceding Tier. Tier 1 students who, because of scheduling difficulty need to select a course from Tier 2, must seek advice from their advisors.

Required Prerequisite Courses

- Tier 1 ELP515 The Role of Research and Data Informed Decision-making for School Leaders
 Tier 1 ELP516 Curriculum Assessment and Instruction PK-12 for Diverse Student Populations

Required Pennsylvania Inspired Leadership Courses

- Tier 1 ELP621 Practicum I Strategic Leadership in District Governance
 Tier 1 ELP622 The Superintendent as a School and Community Leader
 Tier 2 ELP623 Negotiations and Personnel Strategic Decision-making
 Tier 2 ELP624 Ethical and Legal Decision-making at the District Level
 Tier 3 ELP625 The Impact of Facilities and Plant Management Decisions on School Effectiveness
 Tier 3 ELP626 Optimizing Financial Resources to Support District-Level Achievement
 Tier 3 ELP627 Practicum II Strategic Instructional Leadership

A minimum of 15 semester hour credits must be completed at Shippensburg University. Also, upon completion of the program, students must meet the six years of qualified educational experiences of which three must be in administrative position(s) as part of the requirement to receive the Superintendent's Letter from the Pennsylvania Department of Education.

Supervisory I Certification

Post-master's degree programs leading to the Supervisory I Certificate issued by the Pennsylvania Department of Education are offered in the following fields:

- Communication/English
- Counseling
- Early Childhood Education
- Elementary Education
- Environmental Education
- Foreign Languages
- Mathematics
- Pupil Services
- Reading
- Science
- Social Studies
- Special Education

Requirements vary according to specialty area, with a minimum of 15 semester hour credits required. All work must be completed within a five-year period. To be recommended for the supervisory certificate, candidates must obtain a minimum quality point average equivalent to a grade of B with no more than one C grade. A second C grade will cause the student to be dismissed from the university.

Requirements for Admission to the Supervisory Program

1. An earned master's degree with at least 15 graduate credit hours in subject field or educational specialist area.
2. Two references: One completed by a chief school officer (district superintendent or intermediate unit executive director) in the school in which the candidate is currently employed or has been most recently employed; and one completed by either a principal or immediate supervisor. Obtain forms from the department.
3. Submit a completed Apprenticeship Application and Practicum Memorandum of Understanding between their school district and the educational leadership program.

4. School of Graduate Studies approval. The admission letter will outline each student's program, including any additional requirements needed.

Supervisory I Certificate Requirements

The candidate shall:

1. Take six to nine graduate credit hours in the field of supervision to qualify for a practicum experience. (Enrollment in a minimum of 15 credit hours is required at Shippensburg University for the student to be recommended for certification.)
2. Complete the appropriate curriculum outlined in the letter of admission.
3. Present a copy of an Instructional II or Educational Specialist II certificate in the subject area in which the supervisory certificate is desired.
4. Complete a recent graduate research course in the appropriate field or show evidence of having completed comparable applied research in the field.
5. Complete five years of successful professional experience in the supervisory area desired prior to being recommended for certification.
6. Pennsylvania Department of Education requires a passing score on Praxis: Educational Leadership, Administration and Supervision.

Curricula Leading to Supervisory I Certification

Each candidate, in addition to completing the course requirements specified for the specialty area, must demonstrate through appropriate practicum activities the identified competencies have been attained.

Counseling/Pupil Services

Applicants for admission to the graduate program for counselor supervisors must hold a valid elementary or secondary school guidance counselor certificate, or present evidence of having had at least three years of counseling experience in the public schools, and be recommended as having potential as a supervisor of school counseling services. Applicants who have not completed appropriate supervised practicum courses must do so before admission is granted.

To be recommended for certification as a supervisor of school counseling services, a candidate must complete the approved program outlined below and present evidence of having had at least five years of full-time experience as a counselor in the public schools.

- CNS505 Organization and Administration of School Counseling Services
- CNS512 Group Counseling Leadership Skills
- CNS581 Counselor Supervision
- ELP500 General School Administration
- ELP514 Practicum I Leadership Field Experiences at the Building Level
- ELP516 Curriculum Assessment and Instruction PK-12 for Diverse Student Populations
- ELP518 The Role of Supervision in Promoting Student Achievement
- ELP521 Legal and Ethical Issues that Impact on Student Learning
- ELP517 Leadership in Technology and Effective Program Delivery or
- ELP520 School Finance and Student Learning
- ELP619 Leadership for Pupil Services

Communication/English, Early Childhood Education, Elementary Education, Environmental Education, Foreign Languages, Mathematics, Pupil Services, Reading, Science, Social Studies, and Special Education

- ELP500 General School Administration
- ELP510 Special Education Law
- ELP514 Practicum I Leadership Field Experiences at the Building Level
- ELP516 Curriculum Assessment and Instruction PK-12 for Diverse Student Populations
- ELP518 The Role of Supervision in Promoting Student Achievement
- ELP521 Legal and Ethical Issues that Impact on Student Learning
- ELP517 Leadership in Technology and Effective Program Delivery or
- ELP520 School Finance and Student Learning

Special Education (M.Ed.)

A graduate program that leads to a Master of Education degree in special education is offered. Applicants are required to present evidence of previous successful experience in working with children and display a commitment to teaching children with disabilities through an interview.

Those candidates who apply for the teacher certification program in special education and hold no educational certification in another field must complete additional requirements that are determined after a review of their official transcripts. A maximum of 9 credits in special education may be accepted when non-matriculated students make application to the special education program.

Each student is required to have a program-planning sheet approved by their advisor on file. A candidate is required to obtain a minimum grade of B in each course. Courses with a grade less than B must be repeated. A grade of F in any course will automatically dismiss that student from the program.

The Master of Education degree programs are designed to serve these groups:

1. Those who wish to add special education certification to the teaching certificate they presently hold in another field.
2. Certified Special Education teachers who wish to pursue advanced study in one area of their field (i.e., learning disabilities, mental retardation, or behavior disorders).
3. Elementary and secondary classroom teachers who are interested in increasing their professional competencies in working with children with special needs in the general education classroom.

There are four options in the Master of Education special education program:

- a. Certification
- b. Learning Disabilities
- c. Mental Retardation/Developmental Disabilities
- d. Behavioral Disorders

Note: While it is possible to complete the program as a part-time student, the practicum will require extensive work in schools during the school year.

The program of study appropriate for the individual's professional goals will be developed from the following course organizations:

M.Ed. – Certification

- EEC447 Instructional Content and Practices for Special Education
- EEC483 Assessing Children with Exceptionalities for Curricular Decision-Making
- EEC525 Technology: Instructional, Assistive, Universal Design to Support Academics
- EEC548 Direct Instruction
- EEC550 Foundations of Learning Disabilities
- EEC551 Programming and Instruction of Students with Learning Disabilities
- EEC560 Foundations of Students with Mental Retardation/Developmental Disabilities
- EEC561 Programming and Instruction of Students with Mental Retardation/Developmental Disabilities
- EEC570 Foundations, Proactive Approaches, and Management of Students with Emotional and/or Behavioral Disorders
- EEC571 Effective Practices for Programming and Instruction for Students with Emotional and/or Behavioral Disorders
- EEC590 Practicum I
- TCH600 Elements of Research

Grades PK-8 Certification

- EEC413 Effective Instructional Strategies for Children with Exceptionalities

Grades 7-12 Certification

- EEC546 Transition to Adult Life for Students with Disabilities

Total hours: Comprehensive Certification 39

** If the applicant does not hold an education certificate, a program of background courses as prescribed by the chair of the Department of Educational Leadership and Special Education must be completed. This program will include a 16-week student teaching experience.*

M.Ed. – Learning Disabilities **

- EEC447 Instructional Content and Practices for Special Education
- EEC525 Technology: Instructional, Assistive, Universal Design to Support Academics
- EEC548 Direct Instruction
- EEC550 Foundations of Learning Disabilities
- EEC551 Programming and Instruction of Students with Learning Disabilities
- EEC591 Practicum II
- TCH600 Elements of Research
- EEC551 Programming and Instruction for Individuals with Learning Disabilities
- Electives (12 credits)

Total program hours for master's degree 33

*** Program total is a minimum of 33 credits. Electives chosen based on advisement.*

M.Ed. – Mental Retardation/Developmental Disabilities**

- EEC447 Instructional Content and Practices for Special Education
- EEC525 Technology: Instructional, Assistive, Universal Design to Support Academics
- EEC548 Direct Instruction
- EEC560 Foundations of Students with Mental Retardation/Developmental Disabilities
- EEC561 Programming and Instruction of Students with Mental Retardation/Developmental Disabilities
- EEC591 Practicum II
- TCH600 Elements of Research
- Electives (12 credits)

Total program hours for master's degree 33

*** Program total is a minimum of 33 credits. Electives chosen based on advisement.*

M.Ed. – Behavioral Disorders **

EEC447 Instructional Content and Practices for Special Education
 EEC525 Technology: Instructional, Assistive, Universal Design to Support Academics
 EEC548 Direct Instruction
 EEC570 Foundations, Proactive Approaches, and Management of Students with Emotional and/or Behavioral Disorders
 EEC571 Effective Practices for Programming and Instruction for Students with Emotional and/or Behavioral Disorders
 EEC591 Practicum II
 TCH600 Elements of Research Electives (12 hours)

Total program hours for master's degree 33

** Program total is a minimum of 33 credits. Electives chosen based on advisement.

Special Education Supervisor

For information concerning the post-master's program leading to Pennsylvania certification as a Special Education Supervisor, refer to Supervisory Certification Programs.

Social Work and Gerontology Department

Deborah F. Jacobs, Ph.D., *Chair and Graduate Program Co-Director*
(477-1717)

Denise Anderson, Ph.D.

Sam Benbow, Ed.D.

Dara Bourassa, Ph.D.

Jennifer Clements, Ph.D., *Field Co-Coordinator*

Elizabeth A. Fisher, Ph.D.

Marita Flagler, Ph.D.

Michael J. Lyman, Ph.D.

Dorlisa Minnick, Ph.D.

Social Work (MSW)**Collaboration**

Shippensburg University jointly offers with Millersville University a Master of Social Work (MSW) degree program. An MSW permits graduates to work in a variety of human service programs and agencies in an advanced clinical and/or administrative capacity. The flexibility of the social work degree provides graduates with many options as they pursue their careers in helping fields.

Mission

The mission of the MU-SU MSW program is to provide accessible social work graduate education in the south central region of Pennsylvania in order to prepare students for advanced generalist practice and to provide professional leadership and contribute to the development and dissemination of social work practice knowledge.

Program Goals

The MU-SU MSW program seeks to:

1. Prepare students for competent advanced generalist practice, with a focus on rural client systems, through the acquisition and demonstration of social work knowledge, skills, and values.
2. Provide leadership and service for the social welfare systems and the social work profession.
3. Foster commitment to professional development and the creation and dissemination of knowledge.

Program Structure

The program is designed for students who have no previous social work education and for those who want to build upon their baccalaureate social work education. Students will be admitted full- or part-time. Courses are offered evenings with some Saturday classes, which are electives. State-of-the-art technology will permit students

to acquire social work knowledge, skills, and values through multiple educational methods including teleconferencing and web-based activities. Students will take all courses on the campus where they are enrolled, while benefiting from the quality faculty and resources of both universities.

Accreditation

The MU-SU MSW program is fully accredited by the Council on Social Work Education (CSWE).

Admissions Classifications

Students may apply for regular or advanced standing admission. Regular standing admission is for students who completed a baccalaureate degree with a major from other than a CSWE-accredited social work program and for students who did graduate from a CSWE-accredited social work program within the past eight years but did not meet the QPA requirements for advanced standing. Students may apply for advanced standing admission if they graduated from a CSWE-accredited social work program within the past eight years and do meet the QPA requirements as described in the admission guidelines.

Admission Guidelines**Campus**

Candidates may choose to apply through either Shippensburg or Millersville University. If all seats are full at one campus, successful applicants will be given the option to enroll through the other campus, if seats are available. Applicants desiring admission to a specific campus may also be placed on a waiting list if all seats are full.

QPA

Applicants for Regular Standing admission must have a minimum cumulative quality point average of 2.8 on a 4.0 scale from a regionally accredited undergraduate institution. In exceptional cases, applicants who lack the required quality point average but whose other qualifications are outstanding may be admitted on a probationary basis. Applicants admitted on probation must earn a 3.0 quality point average by the end of the first 12 credits.

Applicants for Advanced Standing admission must have earned a baccalaureate degree in the last eight years from a CSWE-accredited social work program with an overall QPA of 3.0 in all undergraduate course work and a major QPA of 3.25 or higher on a 4.0 scale.

Exemption from Foundation (First-Year) Courses

Students who graduated with a baccalaureate degree from a CSWE-accredited social work program who are not eligible for advanced standing may be eligible for exemptions from first-year foundation courses other than practice and field instruction in which they have earned a grade of B or higher within the past eight years. Exemptions will reduce the total number of credits a student must earn to graduate. The Admissions Committee will send a letter notifying the applicant of the exemptions.

Waivers

Students may apply for waivers from courses when they have already demonstrated proficiency in the course content at a graduate level with a grade of a B or higher. When requesting consideration for a waiver, a student must submit a Request for Waiver form and course syllabi to the program co-director. A waiver will not reduce the number of required credits for graduation but will allow a student to take a more advanced course or an elective course.

Entrance Examination

Only applicants whose QPA falls below the minimum standard of 2.8 need to take either the Miller Analogies Test (MAT) or the General Graduate Record Exam (GRE) as part of the admission process. Scores should not be more than five years old at the time of application.

Personal Qualifications

Applicants must evidence a combination of professional and personal experiences, qualities, and values that are considered essential for the practice of social work. A current resume is required. Three professional references are required with a minimum of one from faculty and one from a current or recent agency employer or supervisor. Applicants will complete a written personal statement. Forms are available through the Graduate Admissions Office. The program may request a personal interview or additional information when necessary to make a fully informed admissions decision.

Persons who have criminal records are not eligible to work in many human service fields. Applicants with criminal records should contact the MSW program director for additional information.

Prerequisites

Students must demonstrate they have successfully completed coursework in each of the following areas: Human Biology, Economics, Government/Political Science, Psychology, Sociology/Anthropology, and Statistics. Applicants can be admitted with up to two course deficiencies. These course deficiencies must be completed by the end of the foundation year (30 credits) of the MSW program.

Transfers

Students may receive up to nine (9) credit hours earned at other regionally accredited institutions prior to admission. Graduate credits earned more than five years prior to admission do not qualify for transfer. Students may only transfer credits provided they are in good standing in those schools. Courses must be listed on an official transcript with a B or higher. Condensed one-week graduate courses do not qualify for transfer.

With advance permission of MU-SU MSW program director and the faculty advisor and as part of a planned program, a student may transfer credits from other graduate programs at MU or SU.

Experience

The program does not grant academic credit for life or work experience.

Evaluation of Students

A formal Admission to Candidacy process takes place after a minimum of 12 credits have been completed. MU-SU MSW faculty members evaluate students to determine if they have the potential for completing the requirements of the social work program. Qualifications are based on academic performance in line with university standards and demonstrated ethical behavior, values, and commitment to social work as a career. The social work faculty has the right to dismiss at any time students found not qualified for social work practice.

Degree Requirements

Students enrolling in the Regular Program must complete 60 credits of graduate study including: 15 credit hours of field practicum, 6 credit hours of electives, and 39 credit hours of required course work. B.S.W. graduates in the Regular Program may receive exemption for some course work, as per admission guidelines.

Students enrolled in the Advanced Standing Program must complete 36 credit hours of graduate study including: 9 credit hours of field practicum, 9 credit hours of electives, and 18 credit hours of required course work including a summer "bridge" course.

Due to the cohort nature of this program, all courses must be taken in sequence. The Regular Program can be completed in two years full time (four courses per academic semester plus summer courses) or four years part time (two courses a semester). The Advanced Standing Program can be completed in one year full time or two years part time. Both programs are year round.

Courses

Students enroll in either the regular (60 crs.) or the advanced (36 crs.) program. Students in the regular program take both the required foundation year and the concentration year courses including two elective courses. Students in the advanced program take the required advanced bridge course, the concentration year courses, and three elective courses.

Foundation Year Courses

SWK501 Principles and Philosophies of Social Work
SWK505 Understanding Social Work Practice with Diverse Populations
SWK510 Human Behavior in the Social Environment I
SWK511 Human Behavior in the Social Environment II
SWK515 Social Welfare Policy
SWK520 Micro/Mezzo Social Work Practice
SWK521 Macro Social Work Practice
SWK525 Research Methods
SWK530 Field Practicum I
SWK531 Field Practicum II

Advanced Standing (Bridge Course) – 3 crs.

SWK601 Integrative Seminar

Concentration Year Courses

Advanced Courses – all students including Advanced Standing – 24 crs.

SWK610 Advanced Human Behavior in the Social Environment
SWK615 Advanced Social Welfare Policy
SWK620 Advanced Micro/Mezzo Social Work Practice
SWK621 Advanced Macro Social Practice
SWK625 Advanced Research Methods
SWK630 Advanced Field Practicum I
SWK631 Advanced Field Practicum II

Electives - 6-9 crs. required

GRN510 Foundations of Applied Gerontology I: Social Context of Aging
GRN610 Social and Public Policy in Aging
SWK602 Behavioral Health Care Settings
SWK603 Gender Issues
SWK604 Health Care Settings
SWK605 Child Welfare Settings
SWK606 School Settings
SWK607 Emergency Mental Health and Trauma
SWK608 Program Management
SWK609 Introduction to Art Therapy
SWK612 Social Work and the Law

Teacher Education Department

Christine Royce, Ed.D., *Chair* (477-1688)

Julie Q. Bao, Ph.D.

Lynn Baynum, Ph.D.

Janet Bufalino, Ed.D.

Kent Chrisman, Ed.D.

Gwendolyn Durham, Ed.D.

Han Liu, Ph.D.

Andrea Malmont, Ed.D.

Janice Minetola, Ed.D.

Laureen Nelson, D.Ed.

Eucabeth Odhiambo, Ed.D.

Rebecca Overholt, Ed.D.

Anna Papero, Ph.D.

Mary Paxton, Ed.D.

Donald Philpot, Ph.D.

Cheryl Slattery, Ed.D.

Rebecca Ward, Ph.D.

Robert Ziegenfuss, Ph.D.

James Zullinger, M.Ed.

Programs Offered

The Department of Teacher Education offers graduate programs leading to the Master of Education degree in two areas: curriculum and instruction, and reading. Curriculum and Instruction includes the following cluster choices: early childhood education, elementary education, middle level education as well as biology, English, geography/earth science, history, mathematics, and modern languages secondary education. The early childhood cluster includes three options: M.Ed. only; M.Ed. with state certification for those who hold elementary, middle level, or special education certification; and M.Ed. with state certification for those who have no previous teaching certification or a certificate other than mentioned in option 2. The M.Ed. in reading includes certification as a reading specialist.

Admission to Teacher Education Programs

All applications for admission to our Teacher Education programs must begin with application to the School of Graduate Studies. The Teacher Education department will supply the applicant with required program application forms after notification the individual has met the requirements for the graduate school.

Applicants to the Teacher Education programs must provide review materials by the specified date to ensure consideration. If the applicant is interested in starting in the spring semester all materials must be received by September 1. If the applicant is interested in starting in the summer semester(s) all materials must be received by February 1. If applicants are interested in starting in the Fall semester all materials must be received by April 1. Students must be interviewed and admitted to the program before they will be allowed to enroll in courses.

1. Applicants must have a baccalaureate degree from an accredited college or university.
2. Applicants must present an official transcript showing at least a 2.75 cumulative quality point average for undergraduate studies. Those who do not qualify will be required to take either the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT) prior to admission. Applicants for certification programs must have a 3.0 cumulative quality point average for undergraduate students.
3. Applicants to the reading specialist program are expected to have prior certification in either elementary or secondary education. Candidates lacking certification are not eligible for admission to any program other than early childhood.
4. It is strongly recommended applicants possess relevant experience prior to admission to graduate study.

5. With the application to the graduate school, the applicant will receive a packet of materials containing reference forms, a personal data form, and a request for a résumé.
6. Submit all the above materials to the graduate office on forms provided by the department. *Only the forms provided by the department will be accepted.* When all documents have been returned, program faculty will invite the applicant to the next scheduled interview session.
7. Appear for an interview with one of the faculty.
8. Following the interview each applicant will be assessed by the program with regard to relevant life/work/academic experiences as well as overall impression from the on-campus interview and applicant's references.

Program Requirements

In order to be approved for graduation, each student is required to have a planning sheet on file in the graduate office, approved by the assigned academic advisor.

The courses for a student who enrolls in a certification program along with a master's degree may include undergraduate course work. There may be from two to four semesters of these courses which will be identified on an individual basis. Candidates for initial certification must demonstrate competency in student teaching.

Elementary Education Supervisor

For information concerning the post-master's degree program leading to Pennsylvania certification as an Elementary Education Supervisor, refer to Supervisory Certification Programs in the Educational Leadership and Special Education Department.

Curriculum and Instruction (M.Ed.)

The curriculum and instruction master's degree program is intended for individuals who possess a teaching certificate. Only the early childhood education cluster has options that do not require students to hold certification. The degree is designed to enhance teaching and learning through exploration of theoretical principles and practical applications to educational settings. The 36-credit M.Ed. program consists of a core of 18 credits in four areas that contribute to best practice: curriculum and assessment (3 credits), effective teaching and leadership (6 credits), the learner (6 credits), and research (3 credits).

In addition to the core courses, students will select one of the following clusters of 18 credits:

- Early Childhood Education
- Elementary Education
- Middle Level Education
- Secondary Biology Education
- Secondary English Education
- Secondary Geography/Earth Science Education
- Secondary History Education
- Secondary Mathematics Education
- Secondary Modern Languages Education

Students in the early childhood, elementary and middle level clusters are all required to take TCH609 Internship and Action Research Seminar. This course serves as the capstone experience, synthesizing theory and practice as participants engage in studying and subsequently conducting the action research process.

Program Core (18 crs.)

CURRICULUM AND ASSESSMENT (3 crs.)

ECH577 Early Childhood Curriculum and Assessment

TCH511 Elementary School Curriculum and Assessment

TCH524 Middle School Curriculum and Assessment

ELP512 Curriculum for the Modern Secondary School

EFFECTIVE TEACHING AND LEADERSHIP (6 crs.)

Effective Teaching (3 crs.)

TCH501 Strategies for Effective Teaching
TCH502 Strategies for Critical Thinking and Problem Solving

Leadership (3 crs.)

ECH563 Supervision and Administration in Early Childhood Education
ELP518 The Role of Supervision in Promoting Student Achievement

THE LEARNER (6 crs.)

Development (3 crs.)

TCH575 Advanced Child Development

Individual Differences (3 crs.)

ECH510 Including Young Children with Special Needs in Early Childhood Education

EEC475 Inclusive Education: A Practical Approach for Educators

EEC526 Topics in Special Education for School Counselors & Other School Professionals: Working with Students with Exceptionalities

ELP569 Seminar: Diversity in Education

FOCUS ON RESEARCH (3 crs.)

TCH600 Elements of Research

BIO605 Biological Research Methods

ENG600 Elements of Research

GEO546 Geoenvironmental Research I

HIS600 Computerized Historical Research Methods

HIS601 Research in Local and Regional History

(TCH609 does not meet this core requirement)

Cluster Requirement (18 crs.)

Student will choose the program cluster most closely related to their personal/educational needs.

Early Childhood Cluster

OPTION A: M.Ed. in Curriculum and Instruction - Early Childhood Education specialization

Early Childhood Education Specialization (12 crs.)

ECH520 Social and Emotional Development in Early Childhood

ECH530 Cognitive and Language Development in Early Childhood

ECH540 Families and Early Childhood Education

TCH609 Internship and Action Research Seminar

Electives with Advisement (6 crs.)

ECH410 Physical, Motor and Sensory Development in Early Childhood

ECH460 Family, School and Community Partnerships

ECH461 Assessment in Early Childhood Education

RDG528 Foundations of Literacy Development

TCH445 Strategies for Effective Classroom Management

TCH440 Gender Equity in Education

TCH570 Perceptual-Motor Development

TCH490 Special Topics

TCH612 Thesis I and

TCH613 Thesis II

OPTION B: M.Ed. and Early Childhood Certification for students who have certification in Elementary, Middle School, or Special Education.

Meet all requirements for Option A (36 credits – includes core courses). Must select RDG528 and EEC411 unless similar courses are on transcript.

Early Childhood Block (12 crs.)

ECH340 Preschool and Kindergarten Curriculum

ECH460 Family, School and Community Partnerships

ECH470 Language Development, Literacy and Play in Early Childhood Education

ECH462 Practicum in Early Childhood Education

OPTION C: M.Ed. and Early Childhood Certification for students without any existing certification.

Meet all requirements for Options A and B.

Additional courses:

ECH330 Primary Curriculum

ECH360 Assessment in Early Childhood and Early Intervention

EDU495 Student Teaching (9 crs.)

Elementary Education Cluster

Elementary Content Area (9 crs.)

RDG528 Foundations of Literacy Development

TCH542 Modern Elementary School Mathematics

TCH546 Teaching Science in the Elementary School

TCH560 Making Social Studies Dynamic

Elementary Electives (6 crs.)

TCH440 Gender Equity in Education

TCH445 Strategies for Effective Classroom Management

TCH490 Selected Topics in Teacher Education

TCH505 Technology for Today's Educator

TCH543 Diagnostic Techniques in Teaching Mathematics in the Elem School

TCH545 Earth Science for Elementary Teachers

Required Internship

TCH609 Internship and Action Research Seminar

Middle School Cluster

Middle School Content Area (9 crs.)

TCH423 Integrating Literature in Middle Grades

TCH445 Strategies for Effective Classroom Management

TCH505 Technology for Today's Educator

TCH543 Diagnostic Techniques in Teaching Mathematics in the Elementary School

TCH545 Earth Science for Elementary Teachers

Middle School Electives (6 crs.)

6 credits from any content area; i.e., biology, English, geography/earth science, history, mathematics.

Required Internship (3 crs.)

TCH609 Internship and Action Research Seminar

Secondary Biology Cluster

18 credits in biology from 400 and 500 level courses including those courses offered by the Marine Science Consortium at Wallops Island. Students may structure their course work to meet individual sub-disciplinary interests. At least 12 credits must be taken in the Biology Department. With approval of the biology advisor, a maximum of 6 credits may be selected from geography, earth science, physics, and chemistry.

For further information, contact Dr. Tim Maret, Department of Biology at 477-1401 or tjmare@ship.edu.

Secondary English Cluster

18 credits in English from 400 and 500 level courses (*at least 12 credits from 500 level*).

ENG420 Studies in Writing

ENG426 Adolescent Literature

ENG427 Advanced Poetry Workshop

ENG428 Advanced Creative Writing

ENG438 Technical/Professional Writing II

ENG464 Seminar in a Major Author

ENG465 Creative Nonfiction

ENG466 Seminar in Literary Theory

ENG467 Seminar in Drama

ENG468 Seminar in Fiction

ENG469 Seminar in Poetry

ENG490 Seminar in Selected Topics

ENG505 Graduate Seminar in Poetry
 ENG506 Graduate Seminar in Fiction
 ENG507 Graduate Seminar in Drama/Film
 ENG511 Seminar in Cultural Studies
 ENG512 Seminar in Composition and Rhetoric
 ENG515 Seminar in American Literature
 ENG516 Seminar in British Literature
 ENG517 Seminar in World Literature
 ENG518 Seminar in Multicultural Literature
 ENG530 Seminar in Creative Writing
 ENG525 Seminar in Teaching English/Language Arts

Secondary Geography/Earth Science Cluster

18 credits in geography/earth science from 400 and 500 level courses. While there are numerous 400 level courses available, students must adhere to the university policy regarding the maximum number of 400 level credits that may be taken.

TECHNIQUE COURSES (minimum of 3 crs.)

Students may take more than 3 credits.

GEO420 GISIII: Advanced Geographic Info Systems (GIS I and II are prerequisites)
 GEO425 Image Processing
 GEO440 Field Techniques
 GEO441 Quantitative Methods
 GEO450 Geography-Geology Field Studies
 GEO517 Applied Geographic Info Systems (GIS I is a prerequisite)
 GEO530 Mapping Sciences (GIS I is a prerequisite)

CONTENT AREA COURSES (maximum of 15 crs.)

Students may use techniques courses to count in this section.

ESS404 Applied Meteorology and Climatology
 ESS413 Mineral and Rock Resources
 ESS442 Environmental Geology
 ESS490/594 Selected Topics
 GEO402 Medical Geography
 GEO404 Groundwater and Hydrogeology
 GEO415 Regional Geographic Studies
 GEO444 Environmental Land Use Planning
 GEO446 Water Resources Management
 GEO490/594 Selected Topics (including Marine Science Consortium)
 GEO503 Fundamentals of Geoenvironmental Research
 GEO514 Urban Environments
 GEO522 Geoenvironmental Hydrology
 GEO524 The Geologic Environment
 GEO528 Geography of Economic and Environmental Systems
 GEO531 Geomorphology
 GEO532 Disease and the Environment
 GEO533 Science of Land Use Change (GIS I is a prerequisite)
 GEO536 Problems of the Atmospheric Environment
 GEO542 Land Use Regulations
Maximum of 15 credits.

Three credits may be taken with advisement from geography/earth science, biology, history, political science, chemistry or international studies.

Secondary History Cluster

18 credits in history from 400 and 500 level courses.

United States and North American History (3 crs.)

HIS402 Revolutionary America
 HIS413 Pennsylvania History
 HIS428 Issues in the Gilded Age and Progressive Era
 HIS430 US Cultural History
 HIS513 Seminar in US Women's History
 HIS515 Seminar in 20th Century US Social History
 HIS516 Seminar in African American History
 HIS519 Seminar in International Relations
 HIS525 Seminar in US Regional History
 HIS526 Seminar in the Civil War Era

Global Connections (3 crs.)

HIS407 Women in Comparative Perspective
 HIS410 The Islamic World
 HIS421 Issues in 19th Century Europe
 HIS454 China and the Outside World
 HIS510 Seminar in the Social History of Education
 HIS514 Population in History
 HIS532 Issues in 20th Century Europe
 HIS534 Seminar in Modern German History
 HIS535 Seminar in Medieval Studies
 HIS540 Comparative Latin American History
 HIS545 History, Theory and Pre-Industrial Societies
 HIS550 Seminar in South Asia History
 HIS555 Seminar in Russian, Soviet, and Post-Soviet History
 HIS558 Seminar in East Asia and the Modern World
 HIS562 Seminar in African History

History Electives (12 crs.)

Any of the above courses or:

HIS490 Selected Topics in History (1-3 crs.)
 HIS499 Historiography
 HIS594 Selected Topics in History (1-3 crs.)
 HIS598 Independent Study (1-3 crs.)
 HIS599 Readings in History

Secondary Mathematics Cluster

18 credits in the content area of mathematics.

Choose up to 6 credits from any 400-level MAT courses.

MAT400 History of Mathematics
 MAT410 Numerical Analysis
 MAT413 Statistics II
 MAT421 Number Theory and Cryptography
 MAT422 Partial Differential Equations
 MAT425 Advanced Algebraic Structures
 MAT430 Complex Analysis
 MAT441 Real Analysis
 MAT450 Combinatorics
 MAT456 Deterministic Methods of Operations Research
 MAT476 Probability
 MAT486 Mathematical Statistics
 MAT490 Selected Topics
Must take at least 12 credits from any 500-level MAT courses.
 MAT516 Mathematical Modeling
 MAT527 Number Theory Discovery
 MAT528 Algebra for Teachers of Mathematics
 MAT534 Geometrical Concepts
 MAT538 Topics in Discrete Mathematics
 MAT543 Concepts of Calculus
 MAT551 Technology in the Teaching and Learning of Mathematics
 MAT552 Mathematical Discovery
 MAT572 Probability for Middle and High School Teachers
 MAT573 Statistics for Middle and High School Teachers
 MAT594 Selected Topics in Mathematics

Note: A maximum of 12 credits of 400 level courses may be applied to requirements for the curriculum and instruction master's degree. This limit includes both core and cluster courses.

Secondary Modern Languages Cluster

18 credits in language and methodology from 400 to 500 level courses (at least 12 credits at the 500 level). This cluster offers an option in French or in Spanish.

Department Requirements

Student must demonstrate evidence of oral and written proficiency in the target language by taking the ACTFL OPI (oral proficiency interview) and the ACTFL written test. The minimum score on both tests must be at the advanced-low level. Any course in Spanish/French at the undergraduate level with a C or a D would have to be repeated. Student must complete the degree in accordance with the College of Education requirement of 7 years. Completion of the master's will entail an oral exam and a Spanish/French Education research project whose outcome will be reviewed by all Spanish/French faculty.

Spanish

SPN510 Hispanic Theater
SPN515 Hispanic Poetry
SPN520 Hispanic Fiction
SPN525 Hispanic Culture
SPN530 Spanish Linguistics
SPN535 History of Spanish Language

French

FRN510 French Theater
FRN515 French Poetry
FRN520 French Fiction
FRN525 French Speaking Countries
FRN530 French Linguistics
FRN535 History of French Language

Language Education Methods

EDU522 Advanced Methods in Teaching Languages

Early Childhood Education Supervisor

For information concerning the post-master's degree program leading to Pennsylvania certification as an Early Childhood Education Supervisor, refer to Supervisory Certification Programs in the Educational Leadership and Special Education Department.

Reading (M.Ed.)

A graduate program leading to the Master of Education degree with specialization in reading is offered for fully certified elementary and secondary school teachers. After the successful completion of all program requirements, a teacher is certified as a K-12 Reading Specialist in the state of Pennsylvania.

Admission

Admission into the reading program is offered throughout the year. To become a candidate in the reading program, an application must be completed through the admissions office. The reading program admission packet includes the following: candidate application, three professional reference letters, and transcripts from all undergraduate and graduate course work (a 3.0 QPA is required on previous course work for admission). If the candidate is not presently teaching, the following additional information is required at the time of the interview:

1. The Pennsylvania State Police Request for Criminal Records Check (Act 34)
2. The Federal Criminal History Record (Act 114)
3. The Child Abuse History Clearance (Act 151)

When an application is deemed complete by the admission office, the application packet will be forwarded to the reading program facilitator who assigns the candidate an advisor. The advisor will contact the candidate for an interview. During the interview, the advisor will determine if program background courses are met. Required for entrance into the program is successful completion of two courses at the undergraduate or graduate level—Teaching of Reading

and Teaching of Language Arts, course focused on students with exceptionalities. If the candidate is lacking one or both background courses, admission into the program will be delayed until the course requirements are met. If all requirements are met, the applicant is awarded foundational status.

Foundational Status

The first category for candidates is called foundational status. When a candidate is granted foundational status, he/she may enroll in the following courses in any sequence:

- See Planning Sheet for two special education courses.
- TCH600 Research - topic of proposal MUST be literacy related
- RDG413 Teaching Reading to English Language Learners
- RDG528 Foundations of Literacy Development
- RDG529 Reading and Reasoning Beyond the Primary Grades
- RDG537 Brain Based Strategies for Literacy Learners Experiencing Difficulty

Following successful completion of all foundational level courses with a minimum grade of B, candidates are to take the reading program qualifying exam. Following successful completion of all foundational status requirements, candidates are awarded practicum status.

Practicum Status

The second category for candidates is practicum status. Candidates who have been awarded practicum status are eligible to enroll in the following courses in the prescribed sequence:

1. RDG520 Tutoring Secondary Students
2. RDG532 Diagnosis and Assessment
3. RDG533 Advanced Diagnosis and Assessment and RDG534 Practicum in Reading (these two classes must be taken together)
4. RDG535 Seminar in Language, Literacy, and Reading

Courses must be completed with a minimum grade of B. Candidates are also required to reach the passing score on the Praxis exam for Reading Specialist as set by the Pennsylvania Department of Education. Following successful completion of all practicum status requirements, candidates are awarded program completion status.

Program Completion

When candidates have been granted program completion status, they are eligible to apply for certification and graduation through the Dean of the College of Education and Human Services.

For more information on the Reading Program at ship.edu/reading.

Reading Supervisor

For information concerning the post-master's degree program leading to Pennsylvania certification as a Reading Supervisor, refer to Supervisory Certification Programs in the Educational Leadership and Special Education Department.

Partnerships in Comprehensive Literacy

Shippensburg University has developed a partnership with The University of Arkansas at Little Rock to train school district literacy coaches in this national recognized model. The University of Arkansas at Little Rock (UALR) Partnerships in Comprehensive Literacy (PCL) is a school-reform model dedicated to increasing student achievement. The model uses literacy as a tool for measuring school improvement in four related areas: student learning, teacher perceptions, school climate, and school processes.

The model design incorporates the following features:

Feature 1: A Framework for Literacy uses a workshop approach for meeting the needs of all students, including an integrated curriculum, inquiry-based learning, and differentiated instruction. Students acquire problem-solving strategies for working on tasks that increase in complexity and difficulty.

- Feature 2: Coaching and Mentoring uses scaffolding techniques to assist teachers in taking on new learning, including a gradual release model for assuming responsibility.
- Feature 3: Model Classrooms are transformed from traditional approaches of instruction into literacy labs that become settings for observing the model in action.
- Feature 4: High Standards are based on state, national, and professional standards with benchmarks along the way to ensure that all children reach their highest potential.
- Feature 5: Accountability includes a school-wide, seamless assessment system with multiple measures for evaluating success, such as formative and summative assessments, student portfolios, assessment walls, and school reports.
- Feature 6: Interventions are targeted to meet the needs of diverse readers, including Reading Recovery for the lowest students in first grade and K-5 intervention groups for other needy students.
- Feature 7: Professional Development is embedded into the school climate, including literacy team meetings, professional learning communities, teacher book clubs, peer observations, cluster visits, teacher conferences, and demonstration levels.
- Feature 8: Well-Designed Literacy Plan is created for continuous improvement, including short and long-term goals as related to literacy with a benchmark of three years with a monitoring system.
- Feature 9: Technology is used for communications, presentations, data collection, publications, and networking opportunities.
- Feature 10: Spotighting and Advocacy are techniques for disseminating information on the model, including news releases, research articles, and presentations by school teams, and school site visits.

Implementing the Comprehensive Literacy Model

The foundation of this model is literacy coaches. There are two possible district level of coaches - District Coaches and Building Coaches.

District Coaches - District Coaches are school district employees who enroll in seven courses that comprise the literacy coach program and who are qualified to train building coaches at the end of their training year. In their role, a district coach acts as a building coach in one elementary school building and trains coaches for other elementary school buildings or neighboring school district buildings. The training for a district coach involves 21 credits of post-master's coursework which is to be completed in a 12-month time frame. At the completion of the coursework, a Literacy Coach University Registration will be issued by Shippensburg University of Pennsylvania.

Course Name	Area of Specialty	When Taken
058-511 Comprehensive Literacy Model for School Improvement	Clinical (3 crs.)	Summer (Institute)
058-512 Theory & Practice in Literacy	Theory (3 crs.)	Fall
058-514 Processes & Strategies in Reading Comprehension	Clinical (3 crs.)	Fall
058-513 Supervision & Organization of Reading Programs	Supervision (3 crs.)	Fall
058-515 Research in Language & Literacy Acquisition	Theory (3 crs.)	Spring
058-517 Curriculum Design & Evaluation of Literacy Programs	Clinical (3 crs.)	Spring
058-516 Literacy Coaches as Agents of Change	Supervision (3 crs.)	Spring

Building Coaches - Building Coaches are trained to work full time in a school supporting teachers as they take on the Comprehensive Literacy Model. The training for building coaches is a minimum of 9 credits of coursework in one academic year. Building Coaches can

continue their training and obtain the remaining 12 credits to be awarded a Literacy Coach University Registration. Following are the courses for building coaches:

Course Name	Area of Specialty	When Taken
058-511 Comprehensive Literacy Model for School Improvement	Clinical (3 crs.)	Summer (Institute)
058-514 Processes & Strategies in Reading Comprehension	Clinical (3 crs.)	Fall
058-516 Literacy Coaches as Agents of Change	Supervision (3 crs.)	Spring

Reading Recovery

Reading Recovery is an early intervention program used in school districts for at-risk first grade students. The program helps to develop early reading/writing skills and to build successful literacy experiences. Shippensburg University is the State Site for Reading Recovery. The Pennsylvania Department of Education, Ohio State University, and the National Diffusion Network collaborated in developing and funding this State Site.

Post-Master's Degree

Teacher Leader Training

The teacher leader training program is an 18-credit hour post-master's program which includes the following required courses:

Fall semester

- RDG554 Practicum in Reading
- RDG601 Language Development Theory
- RDG607 Reading Recovery Training for Teachers I

Spring semester

- RDG555 Practicum in Assessment
- RDG602 Reading Thoughts and Processes
- RDG608 Reading Recovery Training for Teachers II

Interested persons must submit an application (available from the College of Education and Human Services) and be accepted as a Teacher Leader participant. Participants must be sponsored by a school district or Intermediate Unit Consortium. Included with the training program and the required course work for two semesters, participants will be expected to complete extensive field work, work individually with four Reading Recovery children each day, demonstrate teaching in front of a one-way observation window with at least three of their own Reading Recovery children, lead a seminar of Reading Recovery teachers to learn the techniques of a Teacher Leader, perform arranged special collaborative activities designed to help the Teacher Leader candidate explore the full role of the Teacher Leader, and collect and maintain data on children in accordance with guidelines for evaluation. All course work must be taken during one academic year.

Specific information on the teacher leader program and the application process can be obtained by contacting Dr. Janet Bufalino, the Trainer of Teacher Leaders at Shippensburg University, at (717) 477-1166.

Post-Baccalaureate Degree

Teacher Training

The Reading Recovery teacher training program is a 6-credit graduate program which includes one 3-credit course in the fall semester and one 3-credit course in the spring semester.

These courses are taught through approved teacher training sites by Teacher Leaders in school-based sites. Interested individuals should contact the Office of the Dean of Education and Human Services at (717) 477-1373 for information on teacher training sites across Pennsylvania, Maryland, Virginia, and West Virginia.

Science Education (M.A.T. with Teacher Certification)

The Master of Arts in Teaching (M.A.T.) in Science Education is designed for professionals and recent college graduates who already hold a degree in a scientific discipline and who wish to teach science in either a middle school or high school. Completion of the program will result in both a master's degree and teacher certification through the Pennsylvania Department of Education (approval pending).

Students will complete a sequence of seven courses to teach research-based principles of safe and effective science instruction as well as a twelve-week student teaching practicum. Students will also complete and present a research project and comprehensive teaching portfolio.

Program Delivery

The 30-credit M.A.T. is designed to meet the needs of working professionals and can be completed in 18 months. Cohorts of 10-15 students will complete a sequence of six modules using a combination of monthly face-to-face meetings at the Dixon University Center in Harrisburg, online interactions, and video conferencing. Each module will be three credit hours. At the beginning of the program, students will be assigned an experienced science teacher in a local school as a mentor and approximately 25 hours of observation and co-teaching per module will be required.

During the 12-week student teaching practicum (12 crs.), students will implement principles from the modules and assume responsibilities for planning, instruction, and assessment. Two capstone projects, a professional portfolio and the results of a research project, will be presented at the end of the program.

The sequence for completing the M.A.T. is as follows:

- One module during the first summer. (3 crs.)
- Four modules during the first academic year. (12 crs.)
- One module during the second summer (3 crs.)
- Student teaching during the fall semester of second academic year. (12 crs.)
- Presentation of professional portfolio and research project during December of fall semester of second academic year.
- Assistance with job placement during the spring semester of the second academic year.

M.A.T. Admission Requirements

- Bachelor's degree in a scientific discipline from a regionally accredited institution.
- Official undergraduate and graduate (if applicable) transcripts sent to Shippensburg University.
- Completed application including a statement of intent summarizing their motivations and goals for entering the teaching profession.
- Two letters of recommendation.
- Passing scores on two teacher certification exams required by the Commonwealth of Pennsylvania: Praxis I Pre-Professional Skills Test and Praxis II Subject Assessment. More information can be found at the Educational Testing Services website (www.ets.org). Applicants may be conditionally admitted if Praxis scores are pending.

The M.A.T. is designed for students who already have content expertise in a scientific discipline that is consistent with one or more of the secondary (grades 7-12) licensure areas in Pennsylvania: biology, chemistry, physics, earth and space science, environmental science, and general science. Applicants may also pursue Middle Level (grades 4-8) certification. The M.A.T. directors will review each applicant's transcripts and Praxis examination scores as part of the admissions process. Applicants are encouraged to register for the Praxis examinations as soon as possible to ensure that scores are available by the application deadline. Final M.A.T. program admission is contingent upon passing the Praxis examinations.

Program Core (30 crs.)

SCED510 Foundations of Science Education in the United States	(3 crs.)
SCED520 Research and Contemporary Issues in Science Education	(3 crs.)
SCED530 Instructional Strategies and Technology in Science Education	(3 crs.)
SCED540 Assessment in Science Education	(3 crs.)
SCED550 Safety and Welfare in Science Education	(3 crs.)
SCED560 Accommodating all Students in Science Teaching	(3 crs.)
SCED590 Student Teaching and Science Education Practicum	(12 crs.)

Program Staff

Carolyn M. Callaghan, Assistant Dean, PCDE, 717-477-1502, cmcallaghan@ship.edu

Joe Shane, Associate Professor, Chemistry, 717-477-1572, jwshan@ship.edu

Faculty

Joseph W. Shane, Ph.D., Curriculum and Instruction (Science Education). Former high school chemistry teacher who currently teaches university-level chemistry and science-specific education courses for pre-service teachers.

Christine Anne Royce, Ed.D., Curriculum, Instruction, and Technology Education (Science Education). Currently serves as the chairperson of the Department of Teacher Education who has an extensive background in middle and high school science instruction and administration.

David F. Bateman, Ph.D., Special Education (Law and Policy).

Twenty years experience with teaching special education courses, working directly with schools and teachers, policymakers.

Cancellation Policy

Shippensburg University reserves the right to cancel any courses due to insufficient enrollment or other unforeseen circumstances.

For More Information

Office of Professional, Continuing, and Distance Education Studies
717-477-1502, extended@ship.edu, ship.edu/SciEd.

**Office of Professional,
Continuing, and Distance
Education Studies**

The Office of Professional, Continuing, and Distance Education Studies collaborates with the academic colleges to develop, administer and support courses, certificates, and degrees that address the professional development, continuing education, and service needs of southcentral Pennsylvania. The emphasis is on nontraditional students, including adult, part-time students, and nontraditional learning experiences including off-campus locations and the use of distance education technologies and accelerated formats. The office provides faculty, departments, and colleges with the opportunity to initiate new programming outside the confines of standard resource limitations. The office also serves as a bridge to the external community through a variety of outreach and service activities.

Continuing and Distance Education Programs

The Office of Professional, Continuing and Distance Education offers both continuing education and distance education courses and programs at the undergraduate and graduate level through a variety of formats. Information about all programs can be found at ship.edu/extended.

- **Degree Programs** — Off-campus degree programs are designed so that individuals may earn a Shippensburg University undergraduate or graduate degree at a location other than the main university campus. These locations have included, but are not limited to, the Dixon University Center in Harrisburg, Harrisburg Area Community College in Gettysburg, the Milton Hershey School in Hershey, the Spring Grove Educational Center in Spring Grove, and the York Learning Center in York. These degree programs are often designed to meet the needs of non-traditional students (adult, part-time, and transfer students) and courses are offered in formats that best match their availability (evenings, weekends, summers, accelerated schedules, and/or distance education). Some of Shippensburg's off-campus programs are designed as cohort programs. Cohorts encourage camaraderie and support among classmates since the same group of students moves through the degree program together.
- **Certificate Programs** – Credit certificate programs are designed for professionals who seek advanced study in a particular subject area. Courses build upon core competencies and provide a balance of theory and practice as appropriate to the discipline. These programs typically require a minimum of 12 credits for completion and consist of both post-baccalaureate and post-master's certificates. Prerequisites vary by program and there is no application fee required.
- **Online Courses** - An online course delivered via the Internet is designed to allow you to earn college credit from your home, office, or while traveling. Online courses may include exercises, projects, and collaborative assignments. The learning environment may feature tutorials and courses with audio lectures, photo materials, discussions, chat rooms, readings, illustrations, and video.

- **K-12 Educators Institute** — The K-12 Educators Institute is a series of short-term graduate courses offered for professionals at all levels of K-12 instruction. Offered mainly during the summer, K-12 courses help meet the professional development and Act 48 needs of educators. Courses range from 1 to 3 graduate credits and cover a variety of subject areas such as: art, biology, communications, counseling, education, exercise science, geography, social studies, social work, and technology to name just a few. These courses are offered online, on-campus, and at a variety of off-campus locations including K-12 schools and intermediate units in south central Pennsylvania. Most courses can be completed in an accelerated format.
- **AP Academy** — The Central Pennsylvania Advanced Placement (AP) Academy was created in 2002 as a way to meet the educational needs of teachers and students in Central Pennsylvania. As an educational partnership between the Capital Area Intermediate Unit, the Lincoln Intermediate Unit, Shippensburg Area School District, the College Board, and Shippensburg University, the academy strives to train new AP teachers and further the professional development of existing AP teachers.
- **Short-Term Study Abroad** — The Office of Professional, Continuing and Distance Education helps to coordinate faculty-led short term study abroad courses that offer students the opportunity to have an international educational experience in one of the most cost and time efficient manners possible. Short-term study abroad courses are sponsored and taught by Shippensburg University faculty at various times throughout the year, primarily in the summer, and typically range from one to four weeks in duration.
- **Academic Camps** — The Office of Professional, Continuing and Distance Education helps to coordinate a variety of summer camps designed to provide academic enrichment for K-12 students. These camps focus on academic specialty areas of interest to both faculty and students, and are characterized by a high degree of hands-on activities for students. Camps are offered in both day camp and residential formats.
- **Non-Credit Programs** — The Office of Professional, Continuing and Distance Education sponsors non-credit professional and non-professional programming, both on and off campus. Programming areas include, but are not limited to, criminal justice, communications, counseling, education, English, literature, foreign languages, mathematics, political science, social sciences, behavioral sciences, and natural sciences.

Contact Information

Our offices are located on the first floor of Horton Hall

Telephone: 717-477-1502

E-mail: extended@ship.edu

Website: ship.edu/extended

For information on non-credit educational opportunities for adults, please visit our website at ship.edu/extended or view the centers at ship.edu/econdev.

Courses of Instruction

Course descriptions are organized in alphabetical order by subject. Information on courses can be found under appropriate headings in the following sequence:

Accounting	ACC
Art & Design	ART
Biology	BIO
Business	BSN
Business Administration	MBA
Chemistry.....	CHM
Communication/Journalism	COM
Computer Engineering	CMPE
Computer Science	CSC
Counseling	CNS
Criminal Justice.....	CRJ
Early Childhood/Elementary Education	ECH
Earth Science	ESS
Economics.....	ECO
Education	EDU
Education of Exceptional Children/ Special Education.....	EEC
Educational Leadership and Policy	ELP
English	ENG
Finance.....	FIN
French	FRN
Geography.....	GEO
Gerontology	GRN
History	HIS
Human Communication Studies.....	HCS
Information Systems Studies.....	ISS
Management	MGT
Management Information Systems	ISM
Marketing.....	MKT
Mathematics.....	MAT
Music.....	MUS
Philosophy.....	PHL
Physics.....	PHY
Political Science.....	PLS
Psychology.....	PSY
Reading	RDG
Science Education	SCED
Social Work.....	SWK
Sociology.....	SOC
Spanish.....	SPN
Teacher Education	TCH

Dual-Level (400) Courses

Courses with numbers from 400 to 499 are open to graduate and advanced undergraduate students. Graduate students enrolled in 400 level courses are expected to meet the customary standards appropriate to graduate-level studies. These standards are reflected in the specific requirements found in syllabi for each of the 400 level courses. A maximum of 12 semester hour credits of 400 level courses may be applied to the requirements of the master's degree.

Accounting (ACC)

ACC401 Advanced Accounting (3 crs.)

Third of three courses involving an intensive study of accounting concepts, theories, and practices relative to external financial reporting. Topics include consolidated financial statements, accounting in the international environment, and governmental accounting. Issues relating to full disclosure and the role of the Securities and Exchange Commission and professional accounting organizations in financial reporting are considered. *Prerequisite: ACC311.*

ACC404 Auditing (3 crs.)

Introduction to standards and procedures employed by professional accountants in performing audits. The objectives of an audit and the types of examinations necessary for rendering opinions on financial reports and for other specified purposes are considered. *Prerequisite: ACC311.*

ACC406 Advanced Tax Accounting (3 crs.)

More in-depth coverage of impact of federal income tax on business entities including proprietors, corporations, and partnerships. Primary emphasis is taxation of corporations and flow-through tax entities. Includes expanded coverage of tax research and planning as well as ethical responsibilities in tax practice. *Prerequisite: ACC306.*

ACC412 Advanced Cost Analysis and Control (3 crs.)

Considers a range of problems related to accumulation and use of accounting data for decision making by the management of the business enterprise. Analytical costing techniques are developed by integrating cost concepts and information generated by the accounting system with quantitative business methods. Emphasis on relationship of decision theory and the cost accounting function to the management information system. Explicit consideration given to behavioral foundations for planning and control. *Prerequisite: ACC312.*

ACC418 Accounting Information and Control Systems (3 crs.)

Designed to provide an understanding of the accounting function as a subsystem within the total management information system. Consideration given to the source of data processed by the accounting system and the form in which it is stored in order to support the planning, control, reporting, and evaluation activities of management. Emphasis on relationship of the information needs of management to the classification of data and the design of the accounting system. *Prerequisite: ACC312.*

ACC490 Selected Topics in Accounting (3 crs.)

Considers contemporary accounting issues affecting society and businesses (private, public, and not-for-profit) in both the national and international spheres. *Prerequisite: ACC311 or departmental permission.*

Art & Design (ART)

ART400 Contemporary Methods in Art Education (3 crs.)

Explores studio materials, art-making processes, and modes of thought from a culturally diverse perspective and current methods regarding studio art instruction in the fields of elementary and secondary education. Students introduced to role of art teacher as facilitator, guide, and mentor, plus the various instructional strategies and models currently employed for success in the field. Besides exploring a cross section of contemporary art-making processes, students will analyze how they create in order for others to understand that process. Competency in lesson planning, organization, classroom management and assessment plus an understanding of the relationship between ideas, process, critique, and the vital role of the studio teacher. Consists of classroom lecture/presentation and intense studio activity. Includes an early field experience, designing, and implementing a studio art project with elementary-age students at the campus laboratory school. All artworks, projects, and experiences will culminate in critique and evaluation.

ART425 Computer Design IV (3 crs.)

Fourth-level course taught on the Macintosh computer. Learning the art of animation and multimedia production including sound and video editing and compositing. Using page composition and illustration/painting/digital photography techniques learned in Computer Design I, II, and III, students learn to compile text, paintings, and photographs into a composite multimedia program. Using paint and ink effects, information will be enhanced with sound and video added. Elements and principles of design, working between software programs, use of a color scanning device, video and still camera capturing devices, and CD authoring will be covered. Content includes techniques directed at creating visually strong multimedia productions. *Prerequisite: ART217.*

ART430 Computer Design V (Web Design) (3 crs.)

Fifth-level course taught on the Macintosh computer. Learning the art of animation and multimedia production including sound and video editing and compositing for web design. Using page composition and illustration/painting/digital photography techniques learned in Computer Design I, II and III, students will learn how to compile text, paintings, and photographs into a composite web program. Using transparency and vector embedding techniques, information will be enhanced with added sound and video. Elements and principles of design, working between software programs, the use of a color scanning device, video and still camera capturing devices, and CD authoring will be covered. Content includes techniques directed at creating visually sound and effective web design.

ART435 Computer Design VI (Book and Portfolio Design) (3 crs.)

Sixth-level course taught on the Macintosh computer. Examines the book as a physical artifact, as the material embodiment of text and visual imaging. Topics include the transitions between hand and mechanical production, methods of bookmaking, printers and publishers, letter forms and typography, paper, page formats and layouts, illustrations, bindings, and the purpose of the book with special emphasis on the relationships between meaning and physical form and the complex conventions of the book. The art of typographic design, calligraphy, book and portfolio design, papermaking, and bookmaking skills following both traditional and nontraditional techniques are covered. Using page composition and illustration/painting/digital photography techniques learned in Computer Design I, II, and III, students enlarge and enhance their knowledge of typography use in book design. Computer illustration, painting, and digital photographic skills used to add visuals into the composite book. Elements and principles of design, working between software programs, the use of a color scanning device and digital camera capturing devices will be covered. Content includes techniques directed at creating visually and thematically strong and unique artist's portfolios and books. *Prerequisite: Computer Design I.*

ART490 Selected Topics in Art (1-3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Biology (BIO)**BIO406 Mammalogy (3 crs.)**

Surveys various areas of mammalian biology including mammalian characteristics, evolution, classification, zoogeography, adaptive radiation, reproduction, population dynamics, behavior, physiology, ecology, and economic importance. Laboratory material covers trapping, study of skin preparation, identification of North American mammals, examination of skeletal and external adaptations, plus field and laboratory techniques. Graduate students are required to complete an additional course project. Includes a weekend field trip. Two hours lecture and two hours lab/week. *Prerequisites: BIO161, BIO162.*

BIO408 Principles of Virology (3 crs.)

Covers morphology, replication cycles, and genetics of important bacterial, plant, and animal viruses as well as the use of gene therapy. Special emphasis given to viral pathogens of humans including the pathophysiology, transmission, treatment, and prevention of viral diseases. Newly emerging viral diseases and their impact on society will also be discussed. Graduate students expected to submit a 5-10 page term paper on a virology-related topic approved by the instructor. *Prerequisites: BIO260, BIO385 pre- or co-requisite.*

BIO409 Immunology (3 crs.)

Introduction to immunology, including immunity, serology, immunochemistry, and immunobiology. Other topics include immunodeficiency diseases, tumor immunology, transplantation immunology, autoimmune diseases, and allergies. Three (3) hours lecture/week. *Prerequisites: BIO260 and BIO385 pre- or co-requisite.*

BIO410 Mammalogy (3 crs.)

Surveys various areas of mammalian biology including mammalian characteristics, evolution, classification, zoogeography, adaptive radiation, reproduction, population dynamics, behavior, physiology, ecology, and economic importance. Laboratory material covers trapping, study of skin preparation, identification of North American mammals, examination of skeletal and external adaptations, plus field and laboratory techniques. Graduate students are required to complete an additional course project. Includes a weekend field trip. Two hours lecture and two hours lab/week. *Prerequisites: Principles of Biology I and II.*

BIO411 Ornithology (3 crs.)

Study of birds including their taxonomic relationships, anatomy, physiology, ecology and conservation. A major focus of the course is identification of avian species found in Pennsylvania and the eastern US, which will be accomplished via field trips and museum skin study. Laboratory instruction will include methods of avian capture, census techniques, museum skin preparation and field trips. Two Saturday field trips and one weekend field trip are required. Graduate students are required to complete an additional course project. Two hours lecture and two hours lab/wk. *Prerequisites: Principles of Biology I and II.*

BIO417 Herpetology (3 crs.)

Study of amphibians and reptiles including classification, evolution, functional morphology, ecology, and husbandry. Laboratory work includes anatomical study, identification, and field trips. *Two hours lecture and two hours lab/week. Prerequisites: BIO161 and BIO162.*

BIO418 Molecular Biology (3 crs.)

Examines structure and expression of prokaryotic and eukaryotic genes. Topics include experimental techniques used to clone, express, and analyze DNA sequences; chromosome and gene structure; mechanisms of DNA replication and repair; mechanisms of transcription and translation; the regulation of transcription; RNA processing and post-transcriptional regulation; gene regulation in development; and molecular mechanisms of mutagenesis and cancer. Includes discussion of current literature and use of online resources for analysis of DNA sequences. *Prerequisite: BIO260.*

BIO419 Ornithology (3 crs.)

Study of birds including their taxonomic relationships, anatomy, physiology, ecology and conservation. A major focus of the course is identification of avian species found in Pennsylvania and the eastern US, which will be accomplished via field trips and museum skin study. Laboratory instruction will include methods of avian capture, census techniques, museum skin preparation and field trips. Two Saturday field trips and one weekend field trip are required. Graduate students are required to complete an additional course project. Two hours lecture and two hours lab/week. *Prerequisites: BIO161, BIO162.*

BIO423 Plant Pathology (3 crs.)

Basic course in plant pathology considers the major general groups of plant diseases together with specific representative diseases for each group and methods for their control. Three hours lecture/week. *Prerequisites: BIO162 and BIO230.*

BIO425 Biota of Florida (2 crs.)

Seminar/field course deals with the biology of warm temperate and subtropical Florida including vegetation, fauna, geology, history, and economy. Offered spring semester of even numbered years, it requires a single weekly one hour class meeting plus an intensive 10-day field trip to parks, natural area, and refuges in Florida over spring break. Field trip costs for the student include food, transportation, entrance and camping fees. *(Offered spring semester, even years).*

BIO430 Principles of Evolution (3 crs.)

Introduction to evolutionary principles, their applications, and the appropriate literature. Major topics include the history of evolutionary concepts, the species and speciation processes, phylogenetic patterns and their reconstruction, classification, biogeography, extinction, and biological nomenclature. Three hours lecture/week. *Prerequisites: BIO161, BIO162, and BIO260. (Offered spring semester).*

BIO442 Aquatic Ecology (3 crs.)

Examines the ecology habitats including streams, springs, lakes, wetlands and estuaries. Lectures explore the physical, chemical, and biological forces shaping aquatic systems, with an emphasis on the ecology and conservation of freshwater organisms and habitats. Field and laboratory work includes sampling techniques, characterization of aquatic habitats, and identification of aquatic organisms. A weekend field trip is required. Two hours lecture and three hours lab/week. *Prerequisites: BIO162, or graduate standing; Ecology and one year of chemistry strongly recommended. Graduate students enrolled in this class will be required to complete additional course requirements.*

BIO444 Conservation Biology (3 crs.)

Applies the principles of population ecology, population genetics, biogeography, animal behavior, and paleobiology to the maintenance of global diversity and natural systems. Research theory is applied to conservation policy and management decisions. Two periods lecture and two periods lab/discussion per week. Includes midweek and weekend field trips. *Prerequisite: college course in ecology or wildlife biology. (Offered spring semester, even years).*

BIO448 Field Botany and Plant Taxonomy (3 crs.)

Deals with principles of classification and systematics of vascular plants, with emphasis on local plant communities. Field trips and laboratories develop skill in the use of technical and popular identification manuals. Library readings develop familiarity with principles and literature of plant systematics and ecology. Memorization of selected, local species required. Field trips include several local excursions plus a weekend trip to natural areas in the Pennsylvania and Delmarva Peninsula. Two hours lecture and two hours lab/week. *Prerequisite: BIO100 or BIO162 (Offered fall semester).*

BIO450 Endocrinology (3 crs.)

Study of the glands of internal secretion and their biochemical and physiological role in the development, growth, metabolism, homeostasis, and reproduction of animals. Three hours lecture/week. *Prerequisite: BIO350 or BIO351 (offered fall semester).*

BIO461 Techniques in Biotechnology (3 crs.)

Provides hands-on experience with standard molecular biology and immunological techniques commonly used in industrial and academic laboratories. Methods include immunoblotting methods, ELISA, isolation and analysis of DNA and RNA, protein purification, and gene cloning techniques. One hour lecture and four hours lab/week. *Prerequisite: BIO385 or BIO418 or CHM301. (Offered spring semester.)*

BIO485 Biological Microscopy and Imaging (3 crs.)

Covers principles and techniques in macrophotography, light microscopy, especially microphotography and videography, and scanning electron microscopy (SEM). Includes specimen handling and preparation including basic theory and practice in fixation, dehydration, dark room techniques, and computer imaging. Perform basic maintenance and alignment of the SEM. Research project required. Graduate students required to complete additional course requirements. Two hours lecture and two hours lab/week. *Prerequisite: Upper division or graduate standing. (Offered spring semester, odd years).*

BIO491 Selected Topics (1-3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by regular courses.

BIO494 Field Research Techniques (3 crs.)

Overview of methods for investigating biological field problems. Students will learn to use a variety of techniques in field conditions. Collections, analyses, and interpretation of data will be emphasized. Methods applied in current professional literature will be discussed. Graduate students will be required to complete an independent project culminating in a written report. *Prerequisite: Graduate or upper division standing. (Offered summers only).*

BIO514 Aquatic Entomology (3 crs.)

Rigorous course concentrating on the taxonomy and morphology of the insects having representatives spending all or part of their life cycles in aquatic environments. Intensive field and laboratory work centers on collection, classification of representative types, and studies of ecological roles of various aquatic habitats. *Prerequisite: a previous entomology course, graduate status, or permission of instructor.*

BIO515 How to Research, Write, and Publish a Scientific Paper (1 cr.)

Introduces biology graduate students to techniques and skills required to successfully research, write, and publish scientific papers. Topics include: What is research; Why publish; experimental design; literature searches; preparing a manuscript; preparing tables and figures; what, how, and where to submit; the editorial review process; and oral and poster presentation of research papers.

BI0520 Plant Ecology (3 crs.)

Explores structure and function of natural plant communities and exposes students to methods of field sampling and data analysis in plant community ecology. Includes review of current primary literature in plant ecology. *Prerequisite: BIO242.*

BIO541 Ecosystems (3 crs.)

Explores pattern and process in ecosystem, emphasizing elemental cycling and energy flow in and across terrestrial and aquatic ecosystems, and interfaces with biotic communities. Will include methods and approaches in ecosystem ecology and review of primary literature. *Prerequisite: BIO242.*

BIO547 Wetland Ecology (3 crs.)

Wetlands structure and function are studied as a unit to better understand the fragility of this invaluable ecosystem. Includes classification, delineations, wetlands protection techniques, and current status of wetlands, with field study of most wetland types of the Mid-Atlantic region. Offered alternate summers.

BIO555 Comparative Environmental Physiology (3 crs.)

Considers comparative aspects of life functions in selected representatives of the animal kingdom with respect to their different environments. *Prerequisite: BIO351 or BIO350 or permission of instructor.*

BIO558 Microbial Ecology (3 crs.)

Examines the interactions of bacteria, yeasts and protozoans in the environment. The role of each type of microorganism in degradation and nutrient recycling is explored in the laboratory and in the field. Topics include soil, water, and gut microbiology; microorganisms as geochemical agents; microbial succession; and seasonal variation in microbial populations. *Prerequisite: BIO220.*

BIO559 Evolutionary Ecology (3 crs.)

Lecture and discussion periods cover topics of physiological ecology, interspecific interactions, population ecology, community structure, the ecological niche, coevolution, and biogeography. *Prerequisite: previous college ecology course or permission of instructor.*

BIO577 Ecomorphology (3 crs.)

Intended for students interested in a holistic approach to biology and experimental research. Reviews the morphological adaptations of animals with emphasis on vertebrates. The functional and behavioral aspects of these adaptations are discussed in the context of the evolutionary and ecological relationships of key taxa. Students are expected to apply their academic background to research, deliver, and discuss the morphological traits enhancing animals' biological fitness. Ramifications of Ecological Morphology (i.e., molecular biology, genetics, physiology, systematics, philosophy) could be also considered. Course is a combination of lectures, student presentations, and discussions of current scientific literature. *Prerequisite: BIO362 or BIO463 or BIO370 or permission of instructor.*

BIO581 Topics in Mammalian Biology (3 crs.)

Lectures and discussion examine topics of contemporary interest in mammalogy, including ecology, population dynamics, systematics, physiology, behavior, and zoogeography. Emphasis is on ecological studies of temperate forest small mammals. May involve some field work. *Prerequisite: course in mammalogy or graduate status.*

BIO583 Biological Techniques (3 crs.)

Laboratory and field-oriented course. Students become skilled in a variety of techniques, selecting with advisement those activities most related to their interests and goals.

BIO593 Biometry (3 crs.)

Examines the uses of parametric and non-parametric statistics in biological research. Students gain practical experience in the application of statistical analyses to sets of original data using both hand calculation and packaged computer programs with emphasis on the organization and preparation of data for analysis, the selection of appropriate statistical tests, and the interpretation of the results of analyses of both published and unpublished data. A pocket calculator with square root function is recommended. *Prerequisite: at least 14 credit hours of college biology.*

BIO594 Selected Topics (1-3 crs.)

Department opportunity to offer courses in areas of major interest not covered by regular courses.

BIO599 Independent Study (3 crs.)

Opportunity to pursue special studies in biology or biology education on topics not available in other courses.

BIO600 Biological Research Methods (3 crs.)

A general study of research methodology in biology with a specific research design and project. Topics in the general study may include use of library resources, collection of data, framing and testing hypotheses and other techniques for evaluating evidence. The specific project consists of the development of a research design for the study of a specific problem in biology.

BIO605-608 Graduate Research (3-12 crs.)

Opportunity to engage in research under the guidance of a member of the biology faculty.

BIO609 Internship (3 crs.)

Opportunity for students to gain practical experience in their chosen career area.

BIO612 Thesis I (3 crs.)

First in a two-course sequence. Provides master's degree candidates with the opportunity to conduct a major research project. *Prerequisite: Completion of a research proposal and literature review. A temporary grade of Q will be assigned until the thesis is completed.*

BIO613 Thesis II (3 crs.)

Second in a two course sequence of graduate courses designed to provide master's degree candidates an opportunity to conduct a major research project. Students complete and defend a thesis. *Prerequisite: BIO612.*

Business (BSN)**BSN 510 Economic and Information Systems Environment (4 crs.)**

Introduction to macroeconomic and microeconomic principles with an emphasis on applications to modern business problems. Major topics include supply and demand, consumer behavior, theory of the firm, market structure and competition, monetary and fiscal policy, and international trade. The role of information technology in business environment is also discussed, including such topics as doing business on the Internet, database management, client-server networks, and information security. *This course is part of the graduate business certificate and does not count toward the MBA degree.*

BSN511 Business Operations and Analysis (4 crs.)

Explores the responsibilities and processes needed for a business to provide a product or service to customers. Case studies and real-world examples are used extensively to investigate the problems encountered in these business operations. Quantitative and non-quantitative methods and models are used in the analysis of topical subject areas such as forecasting, capacity planning, materials management, scheduling, and quality control. *This course is part of the graduate business certificate and does not count toward the MBA degree.*

BSN512 Essentials of Accounting and Finance (4 crs.)

Introduces the basics of financial accounting and financial management. The accounting concepts, practices, and principles that guide the preparation of the balance sheet, income statement, and the statement of cash flows are all presented. Financial management concepts and techniques are used to evaluate the financial performance of the firm. Topics include financial statement analysis, working capital management, and capital budgeting. Emphasis is placed on the interpretation and limitations of financial reports and their use in evaluating the performance of the firm. *This course is part of the graduate business certificate and does not count toward the MBA degree.*

BSN513 Organizational Behavior and Marketing (4 crs.)

The organizational behavior component examines human behavior in organizations and considers the practical skills managers need to motivate peers and subordinates, make decisions, deal with conflict, and succeed in a team-based environment. The marketing component examines marketing planning, marketing research, buyer behavior, market segmentation and targeting, as well as the key elements of a marketing strategy. *This course is part of the graduate business certificate and does not count toward the MBA degree.*

BSN514 Strategic Management and Leadership (4 crs.)

Explores strategic vision and direction. The importance of achieving a fit between the internal and external environment for organizational survival and success is a central issue. The strategic concepts of competitive advantage, strategy formulation and implementation, power and influence, organizational change, and leadership will be addressed. Case studies, business articles, and text material will be used to examine strategy and leadership theory, heuristics, and practice. *This course is part of the graduate business certificate and does not count toward the MBA degree.*

Business Administration (MBA)

MBA502 Managerial Accounting (3 crs.)

Develops an understanding of the quantitative use of accounting data for decision making within the firm. The focus is on developing an understanding of and appropriate use of cost in managerial decision making. Although the appropriate use of cost in this course refers primarily to short-term decisions, the strategic implications of cost analysis are also addressed.

MBA529 Global Managerial Finance (3 crs.)

Explores basic financial theories, their application, and financial decision models necessary for handling complex corporate financial problems in the global environment. Emphasizes the important role of finance in the global business operations.

MBA532 Marketing Research (3 crs.)

Investigate how all types of business research is conducted as well as determining the quality and validity of research reports and findings. Business research is an important management tool that exerts a major influence on decision making. It provides insights into and solutions for organizational problems. The pedagogy will be applied and real world. Extensive use of cases and actual business problems will be utilized. Finally, greater emphasis on using the power of the Internet and computer software to conduct business research will be employed.

MBA533 Business Operations and Logistics Planning (3 crs.)

Introduces students to scope and variety of logistics operations as they pertain to transforming resources into goods and services. Topics include demand forecasting, planning for logistics operations, resource management, production and service delivery strategies, and quality assurance.

MBA534 Buyer Behavior (3 crs.)

Primary goal is to enhance student's understanding of customer behavior and ultimate goal is for student to develop effective marketing techniques. Includes consumer psychology as well as its relevance for marketing researchers and managers. Presents a comprehensive, systematic, and conceptual framework for understanding people as consumers and organizational buyers. Makes heavy use of models from psychology and social psychology. Topics such as demographics, lifestyle, information processing, motivation, social influence, brand loyalty, attitude measurement and change, and decision-making are studied. Other topics may include cross-cultural differences in customer behavior, ethics, and the impact of technology on customer behavior.

MBA547 Management Information Systems and Applications (3 crs.)

Designed to provide a managerial overview of the role of information systems in the business environment, the roles, and responsibilities of those involved, and the potential future trends in information technology and their implications on the business world. Information is a powerful resource and information systems (IS) are used in almost every business function within every industry. Knowledge of information and how it flows within processes is an essential element of success in virtually any position. While not everyone in business needs to be an IS professional with detailed technical expertise; everyone needs an in depth understanding of the subject to know how to use and manage IS in his or her profession.

MBA548 IT Management and Innovation (3 crs.)

Examines frameworks, concepts, practices, and examples that help business managers understand the value of IT and generate business value from investments in IT and its complimentary business resources. Topics include strategic alignment of IT with organizational goals, organizational efficiency and transformation enabled by IT, organizational learning and innovation enabled by IT, positioning and managing of the IT function, IT and sustainability. Uses lecture, projects, case studies. Also examines from business perspective

systems and technologies that help companies innovate and deliver business value such as business analytics, cloud computing, enterprise resource planning, customer relationship management, and supply chain systems.

MBA552 Entrepreneurship (3 crs.)

Examines all aspects of starting a new business, with emphasis on the critical role of recognizing and assessing opportunities. Topics include attributes of entrepreneurs and entrepreneurial careers, creating and evaluating opportunities, writing business plans, and financing new ventures.

MBA554 International Business (3 crs.)

Presents broad view of issues facing professionals in the international business area. Topics are broad and include international trade, exchange rates, finance, organizational structure, and international legal dimensions. Student learns to weave the social, technical, cultural, risk and human relations factors into a global context.

MBA556 Organizational Leadership (3 crs.)

Examines the leadership and influence issues managers face. Attention is given to leading up, down, and across the organization, recognizing leadership is not limited to managers. Through guest business speakers, cases, readings, projects, and simulations, students gain greater insight and skill in leading. Topics include characteristics of effective leaders, power and influence strategies, crisis management, organizational politics, and leadership assessment.

MBA557 Negotiation (3 crs.)

Designed to provide students with skills needed to approach negotiation and bargaining situations with confidence. This includes providing frameworks for the analysis conflict and its origins, knowledge about one's own tendencies in negotiation, and a chance to experiment with negotiating techniques in a variety of contexts. Topics include: integrative and distributive negotiations, individual differences in bargaining styles, coalitions, team negotiations, negotiating through agents, and ethical issues in negotiation. Course content is delivered through readings, cases, and lecture, however, considerable emphasis is placed on in- and outside class negotiation simulations and subsequent classroom discussion.

MBA558 Ethics and Sustainability (3 crs.)

A combined conceptual and application course. Explores the various concepts of business ethics, social responsibility, corporate citizenship and sustainability. Specifically examines stakeholder theories, environmental and social concerns, criticisms of capitalism as well as specific ethical and social issues that apply to the various business fields including employee relations, marketing, operations, finance and accounting. Explores the application of these concepts to various business cases.

MBA561 Human Resources and Development (3 crs.)

Examines essential cutting-edge organizational strategies and practices that enable leaders/managers to implement effective employment team environments by attracting, deploying, and retaining proficient employees within the context of appropriate federal/state legal employment regulations. Topics may include legal regulation of the employment relationship, work flows, staffing, employee separations, performance appraisals, training and career development, compensation, employee rights, employee and labor relations, and global HR issues.

MBA565 Information Management and Analysis for Decision Making (3 crs.)

Provides skills and tools necessary for managers to efficiently solve problems using information technology to support the decision making process. Using a variety of software packages, structured, semi-structured and unstructured problems will be analyzed and the role of information technology investigated. Models based on quantitative and non-quantitative data will be studied also.

MBA570 Marketing Management (3 crs.)

Detailed study of concepts and procedural alternatives in: the delineation of the market target, the development and implementation of the marketing mix, and the control and analysis of the total marketing effort. A survey of the marketing mix (product, place, price, and promotion) with emphasis on the strategic fit of these items to the overall execution of providing customers the greatest value proposition possible. Extensive use of cases and analysis will be employed.

MBA571 International Marketing Management (3 crs.)

The purpose of the course is to investigate the concerns and factors that surround international marketing strategy on a global scale. Focuses on assessing opportunities in international markets, marketing strategy development in relation to the international marketing environment, and measuring global market needs.

MBA575 Global Supply Chain Management (3 crs.)

Begins by exploring the strategic nature of the global supply chain. Illustrates the impact of globalization on the business decisions for demand fulfillment, e.g. procurement, location, and distribution. Investigates how global supply chains utilize global markets for both supply and demand. Shows how enhanced information systems can lead to decreased costs and more efficient outcomes. Explains how global supply chain partners can be evaluated. Deliberates efficient organizational structures for fulfilling global demand. Shows global risk and provides risk management tools to mitigate. In addition to being exposed to the theory, case studies will be used to further reinforce the material's application in practice.

MBA577 Supply Chain Management (3 crs.)

Introduces an integrated enterprise approach of flow of goods and services from suppliers to customers (supplier relationship, procurement, operations management, inventory control, logistics and transportation, distribution and customer service). Every topic in each area is being discussed in the context of integrated flow of goods and services from suppliers to customers and continuous flow of information from the customers to the suppliers. Covers the issues facing managers of import-export firms, trading companies, international service companies, and multinational corporations.

MBA593 Strategic Management (3 crs.)

Examines strategic analysis and decision making under conditions of dynamic uncertainty, with a focus on cross-functional integration and the management of processes and change. The importance of achieving a fit between the internal and external environment for organizational survival and success is a central issue.

Chemistry (CHM)**CHM415 Topics in Medicinal Chemistry (3 crs.)**

Study of basic principles of organic chemistry and pharmacology used in the design of chemical substances that interact with biological systems. Discussion centers on molecular basis for drug action, structure activity relationships, and methods of synthesis of the important classes of drug substances. *Prerequisites: CHM221 and CHM222.*

CHM420 Biochemistry II (3 crs.)

Extension of CHM301. Develops to a greater depth the topics of bioorganic chemistry, enzyme kinetics and mechanisms, intermediary metabolism and metabolic controls, and certain selected topics which are necessary for an understanding of modern biochemistry. *Prerequisite: CHM301.*

CHM421 Biochemistry Laboratory (1 cr.)

Introduces various laboratory techniques essential to the practice of modern biochemistry including separations, purification, and analytical methods. *Prerequisite or concurrent: CHM301.*

CHM450 Studies in Physical Chemistry (3 crs.)

Studies selected topics in advanced physical chemistry with extensive use made of current literature in the field. Topics are chosen from quantum chemistry, statistical thermodynamics, catalysis, molecular spectra, and molecular structure. *Prerequisite: CHM362 or permission of instructor.*

CHM460 Instrumental Analysis (3 crs.)

Laboratory course with study of the following instrumental methods of analysis: fluorescence, X-ray, atomic absorption, flame emission, mass spectrometry, high pressure liquid chromatography, and nuclear techniques. Students perform analyses with all instruments. Short discussion period precedes each laboratory exercise. *Prerequisite: CHM362 or permission of instructor.*

CHM480 Organic Reactions and Mechanisms (3 crs.)

Concerned with theoretical organic chemistry with emphasis given to stereochemistry, electronic theory, reaction mechanisms, and the application of physical methods to organic chemistry. *Prerequisite: CHM222 or permission of instructor.*

CHM481 Advanced Inorganic Chemistry (4 crs.)

Focused on solid-state chemistry, acid and base chemistry, oxidation and reduction chemistry, physical techniques of inorganic chemistry, reactions of coordination complexes, d-metal organometallic chemistry, nanotechnology, cluster chemistry, and bioinorganic chemistry. Topics build upon the material from CHM 381. Three periods lecture and three periods lab/week. *Prerequisite: CHM 381.*

CHM490 Selected Topics (1-3 crs.)**Communication/Journalism (COM)****COM410 Women and the Media (3 crs.)**

Introduces overview of the many and varied contributions of women in mass media. Through slide lectures, documentary videos, and student research presentations, students explore the lives and work of women media professionals, explore some of the notable historical obstacles to women in this once male-dominated field: sexist attitudes, stereotypes, lack of women in management, and conflicts between job and family. Also examines the ethnic diversity of women in this important professional field. Will explore how women's style and vision differs from their male counterparts. *Prerequisite: basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM425 Feature Writing (3 crs.)

Deals with specialized writing for newspapers and magazines and offers instruction and practice in developing ideas for articles, using research methods, and writing for mass audiences. Keyboarding skills required. *Prerequisite: Basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM432 Public Relations Research and Campaigns (3 crs.)

Explores the theory and philosophy of promotion as it pertains to public relations. Examines basic quantitative and qualitative research methods (survey, content analysis, focus group, etc.) that can be used effectively to design a campaign plan. Explores the various components of a public relations campaign plan, which students will draw upon to produce a public relations campaign for a corporation or non-profit organization. *Prerequisite: basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM451 Electronic Field Production (3 crs.)

Designed to develop and train visual essayists — single-camera videographers who link pictures, words, and sound to create electronic stories. Creates, develops, and polishes skills and techniques needed to produce video documentaries, corporate videos, and live event productions. Skills and techniques include telling the visual story without words; writing and shooting long-form TV stories, interviews and features; learning visual grammar; perfecting video editing; and developing on-camera performance abilities. *Prerequisites: COM224 and COM284, or permission of instructor.*

COM452 Electronic News Gathering (3 crs.)

Focus is preparation for careers as professional electronic journalists. Emphasizes development of news judgment, journalistic responsibilities, and journalistic ethics. Students work in classroom and television environments to acquire and improve reporting, writing, and technical skills needed to succeed in the electronic newsroom. Introduces the culture of the broadcast news environment, including meeting deadlines and working in a team environment both in the field and in the newsroom. *Prerequisites: COM 224 and COM 284, or permission of instructor.*

COM460 Case Studies in Public Relations (3 crs.)

Reviews current public relations principles and practices as related to business, governments, institutions, and associations. Examines the application of PR principles and practices in the management of contemporary public issues and problems. *Prerequisite: Basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM470 Advanced Digital Photographic Communication (3 crs.)

Introduces principles of digital photography and teaches basic competencies to apply standard photo concepts to the realm of digital imaging. Includes history of digital photography, techniques of composition, and basic processes of producing digital photographs from electronic and traditional camera images. Emphasis on practical technique with electronic equipment (cameras, scanners, photo CDs, and other methods of image acquisition) and the manipulation of images through applications like Adobe Photoshop. Students are expected to develop an understanding of the relationship of digital photography to their professional goals. Different evaluation criteria applied to graduate/undergraduate students. *Prerequisite: COM360 or permission of the instructor.*

COM476 Magazine Design (3 crs.)

Provides opportunity to examine, discuss, and create periodical publications (magazines) in a variety of specialized formats. Develops skills in understanding and creating periodical publications by focusing on writing and design. Examines a variety of magazines to provide an understanding of content, typography, design, layout, and production. Students learn to create promotional materials necessary to develop audience for periodical publication. Students write and edit several stories for their own publication, which is final course project. Students produce a 32-page magazine as this final project. Graduate students conduct market research analysis and a strategic promotional plan in addition to standard coursework. *Prerequisite: basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM478 Digital Journalism (3 crs.)

Focus on the changing nature of technology and its use in news organizations to gather, analyze, synthesize, and disseminate information. Focuses on developing, researching, and writing specialized stories for newspaper and magazine websites. Students learn to approach stories as packages, developing story ideas that can be presented in written, audio, and video formats. Focuses on writing and editing, written narrative, and capturing and editing digital audio and digital video segments, developing accompanying links, and designing a story package to be presented in print and on a website. *Prerequisite: basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM481 Interactive Media Design (3 crs.)

Study in interactive communication with primary emphasis on web design and content; course focuses on practical application of contemporary interactive web design software to create online materials and messages. *Different evaluation criteria applied to graduate/undergraduate students.*

COM482 Internet Communication (3 crs.)

Introductory course with fundamental knowledge concerning the construction, use, and importance of world wide web media for the communications industries. Students construct an actual website concentrating on the usability of web pages and websites while applying skills gained in class to work with real world clients. *Prerequisite: basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM484 Electronic Media Programming and Management (3 crs.)

Provides students with insights into the programming and management of: local TV and radio stations; local cable TV systems; national TV, radio, and cable TV networks; national DBS, DTH, and wireless cable services; and international Internet program providers. Emphasis on issues involving program creation and development, program scheduling, program distribution, audience evaluation of programs, and the management of station/system/network personnel. *Prerequisite: basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM490, 491, 492 Selected Topics in Communication/Journalism (1-3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses. *Prerequisite: basic coursework in communication/journalism, including a media writing course or permission of instructor.*

COM505 Public Relations Foundations (3 crs.)

Zeroes in on two elements of PR that have come to the fore in the last few years: international PR and online PR tactics, particularly social media. Also emphasizes two ongoing concerns of PR professionals: ethics and research.

COM506 Public Relations Strategies (3 crs.)

Covers the techniques and approaches to strategic planning, strategic writing, and graphic/media design for organizational public relations. In strategic planning, students learn how to develop objectives, formulate strategies, select tactics and implement plans for public relations activities that can better serve the organization's goals. Strategic writing emphasizes goal-oriented writing for a convergent world of print, broadcast, and online/social media. Crisis communication also studied. Also address a creative skill—graphic/media design—for public relations in a digital media environment.

COM510 Professional Seminar (3 crs.)

Guides students through the process of developing and implementing strategies for intelligent and effective media engagement with audiences, any company's or corporation's primary obligation. Focus is largely on the study of social media as a channel to meet that need. Using case studies and analysis of available social media tools, and proven corporate social media strategies, course helps students understand the landscape of social media as a powerful form of communications by which to meet established business objectives, connect with or grow in the realm of international relations, become more aware and proficient in visual communications, and incorporate communication ethics.

COM511 Modes of Film Communication (3 crs.)

Reviews the theory, history, and criticisms of films; analyzes the content and roles of various modes of film such as documentary, exposition, etc.; provides writing opportunities for the film medium.

COM516 Photographic Communication (3 crs.)

Surveys the history of photography; studies the theory of photography including light, exposure, optics, photographic chemistry, color and composition, and provides background in using photography as a communication tool.

COM520 Applied Mass Communication Research (3 crs.)

Required course for Communication Studies students and designed to introduce a variety of applied research techniques. Examines surveys, focus groups, and content analyses and provides the opportunity to engage in directed research projects, applying the methods and concepts discussed in class.

COM526 Emerging Mass Media Technologies (3 crs.)

Reviews and analyzes the role of developing and future telecommunications media technologies and their implication for today's media and society.

COM527 Digital Storytelling (3 crs.)

Communication organizations must meet their consumers in the digital world, so professionals with an understanding of writing to the digital content consumer are in high demand. Course designed for those seeking a career in a communications or related field. Aims to prepare students to produce content for digital formats such as web and mobile platforms. Students research and collect information on a specific topic and produce a digital narrative that will entice consumers to explore the message. Emphasis given to well-written text, but the best producers understand the multi-faceted approach to digital content that would include visual content and consumer interaction.

COM528 Digital Media Workshop (3 crs.)

Examines the connections between digital technology, media content creation, and the social and individual influences on this content and its distribution. Students required to: (1) design and build an online identity using digital media tools and (2) narrate this process throughout the course via a weblog. Students expected to openly frame this process and interact with one another throughout the course, as well as engage and interact with the online world beyond campus.

COM530 Law and the Media (3 crs.)

In-depth study of the law that affects media. Focuses on the reasoning behind regulation, the impact of the laws, and the need for changes in current regulatory schemes. Legal research skills and methods are stressed.

COM536 World Broadcasting Systems (3 crs.)

Comparative study of international broadcasting program policies, economic systems, control, and organization. The use of broadcasting in international affairs as an instrument of propaganda, culture, and information dissemination. Monitoring of overseas broadcasts, and discussions with representatives of domestic and foreign broadcast agencies.

COM570 Fund Raising and Association Public Relations (3 crs.)

Introduction to the fundamentals of raising funds for education, religious, health, and social welfare organizations. Includes a review of the conventional techniques used in reaching traditional funding sources. Association organization, membership development, and volunteer support round out the course.

COM594 Selected Topics (1-3 crs.)**COM603 Professional Project in Mass Communications (3 crs.)**

Students design a project of professional and intellectual interest that contributes both to their knowledge and to the field of communication/journalism. *Prerequisites: COM500, 544, 561, 600. (Individualized instruction course open only to students working with an advisor on the professional project option.)*

COM609 Internship I (3 crs.)**COM610 Internship II (3 crs.)**

Computer Engineering (CMPE)

CMPE410 Real-Time and Mobile Computing (4 crs.)

Students will develop applications for real-time operating systems and today's hand-held devices. Students will learn about hard and soft real-time systems, differences between general purpose operating systems and real-time operating systems (RTOS), how to identify and meet real-time goals in an application. Students will also learn how to design, develop, and deploy applications to a mobile operating system, such as a modern smartphone, PDA, or table computer. *Prerequisite: CMPE320 with a C or better.*

CMPE420 Digital and Reconfigurable Computing (4 crs.)

Students will develop solutions using high performance digital circuits based on embedded processors and Field Programmable Gate Arrays (FPGA). Students will use Verilog to create, simulate, and test their solutions, and to ensure they meet the timing and packaging constraints of the problem. Includes writing code for portable computer systems, such as PDA's and cell phones. *Prerequisite: CMPE320.*

Computer Science (CSC)

CSC401 Simulation Techniques (4 crs.)

Study of the statistical and modeling techniques necessary to build credible models. Techniques for gathering real-world data and analyzing for model building and verification; also gathering data from models including sensitivity analysis, steady-state analysis, and variance reduction techniques. Credible "what if" analysis for comparing two models. *Prerequisite: MAT313.*

CSC431 Computer Networks (4 crs.)

Studies protocol suites, emphasizing the TCP/IP 4-layer model. Topics include network addresses, sub netting, client/server network programming via the sockets API, network utilities, architecture of packets, routing, fragmentation, connection and termination, connection-less applications, data flow, and an examination of necessary protocols at the link layer, particularly Ethernet. Other topics may include FDDI, wireless, ATM, congestion control, and network security. *Prerequisites: SC111 and CMPE320.*

CSC432 Computer Security (4 crs.)

Topics include cryptography (both secret and public key), authentication, and network security applications including IP, e-mail, web, network management, and system security. *Prerequisite: CSC111.*

CSC434 Web Programming (4 crs.)

Teaches how to set up a website typical of one used in an online business. Includes preparing web pages in HTML, writing client-side scripts in Vbscript or JavaScript for active web pages, writing server-side scripts in Vbscript for active server pages, learning to set up and access a database for processing online ordering and searches, and some web server administration. Students will establish a website for an imaginary business of their choosing. *Prerequisite: CSC371.*

CSC440 Compiler Design (4 crs.)

Introduction to design and implementation of compilers. General principles of compiler design are covered with emphasis on the following components: scanner, parser, semantic analyzer, code optimizer, and code generation. Symbol tables and error handling also covered. Includes implementation of a compiler for a simple language. *Prerequisites: CSC111 and CMPE220.*

CSC450 Advanced Computer Graphics (4 crs.)

Explores advanced topics in computer graphics. Students will be introduced to 3D modeling and animation techniques using a 3D renderer, including topics such as object modeling, lighting, and keyframing. Additional topics may include, but not limited to, shading languages, advanced shading techniques such as ray tracing and radiosity, shadow generation, object interaction, and graphics file formats. *Prerequisite: CSC350.*

CSC 451 Computer Graphics Algorithms (4 crs.)

Explores the algorithmic foundations that underlie a typical computer graphics API. Topics include normals; 2-D and 3-D transformation matrices; projection matrices; clipping, raster scan algorithms; fill algorithms; hidden line and surface algorithms; light, color, and shading algorithms; curve fitting; surface representation. Students will implement various aspects of a computer graphics API. *Prerequisites: CSC350 and MAT318.*

CSC462 Artificial Intelligence (4 crs.)

Overview of artificial intelligence. Emphasis on basic tools of AI, search and knowledge representation and their application to a variety of AI problems. Search methods include depth-first, breadth-first, and AI algorithms; knowledge representation schemes include propositional and predicate logics, semantic nets and frames, and scripts. Planning using a STRIPS-like planner will also be addressed. Areas may include natural language processing, computer vision, robotics, expert systems, and machine learning. *Prerequisite: CSC211.*

CSC463 Introduction to Robotics (4 crs.)

Introduces the science of robotics from the perspective of artificial intelligence. Emphasizes various robot control architectures and their implementations using mobile robots. Topics include history of robotics; hierarchical, reactive, and hybrid architectures; Braitenberg vehicles; integration and calibration of sensors; construction techniques and considerations; and implementation of various types of behaviors. *Prerequisites: CSC111 and CMPE220.*

CSC493 Selected Topics In Computer Science (4 crs.)

Presents topics which will vary according to need. Topics such as languages are appropriate.

CSC497 Testing and Extreme Programming (4 crs.)

Study of testing software including test case design, automated testing, and test coverage. Ways testing can be used to drive the life cycle as in extreme programming (XP). Through a series of testing labs, debugging techniques and XP methodology will be practiced. Student teams will develop at least two iterations of a product using XP (particularly test driven development) practices. *Prerequisite: CSC211.*

CSC501 Algorithm Design and Analysis (3 crs.)

Examines various techniques for designing algorithms, analyzes and compares algorithms in terms of storage and computational complexity, and examines proof techniques for doing the analysis. Analysis of run-time growth of algorithms includes the growth classes O , Ω , θ , ω , and o . Worst-case, best-case and average-case analysis. Solving recurrences. Analysis of sorting algorithms. Design techniques to control growth including data structures, divide-and-conquer, dynamic programming, memorization, and greedy algorithms. Translation of real-world problems to graph problems and algorithms for graph problems including graph searches, topological sort, shortest path and minimum spanning tree. The classes P, NP, and proving a problem is NP-complete. *Prerequisites: MAT318, CSC111.*

CSC502 Automata Theory (3 crs.)

Finite automata and regular languages, pushdown automata and context-free languages, Type of Turing machines. Proving the relative power of models, Chomsky hierarchy. Connection between languages and problems. Church-Turing Thesis, Inherent complexity of problems: undecidability, computational complexity, the classes P, NO, and NP-Complete intractable problems.

CSC514 Programming Languages (3 crs.)

A study of some programming languages which are significantly different from languages studied in the lower-division courses and which together with those languages, make a representative set of higher level programming languages. Types of languages to be studied include: list processing languages, string processing languages, procedural languages, process control languages and very high level languages.

CSC520 Computer Architecture (3 crs.)

Introduction to computer architecture, operating systems, and communications. Topics include number and coding systems, overview of microprocessors, supporting chips, memory and memory interfacing, I/O design, timers, interrupts and interrupt processing, DMAs, video adapters, data communication, keyboard and printer interfacing, disk storage, TSRs, and bus architectures.

CSC521 Operating Systems (3 crs.)

Studies functionality of an operating system and design of efficient operating system components. Definition of a kernel and higher-level functions of operating systems, CSC scheduling algorithms. Interprocess communication including semaphores with busy-wait and idle-wait. Deadlock, the dining philosophers problem and starvation. Resource allocation. The bankers Algorithm. Virtual memory architectures. Introduction to distributed operating systems. *Prerequisite: CSC520.*

CSC523 High Performance Computing (3 crs.)

Engages students in the high performance computing. In-depth coverage of techniques for the design and analysis of parallel algorithms and for programming these algorithms on parallel platforms. Covers the principles of parallel algorithm design and different parallel programming models with extensive coverage of MPI. A broad and balanced coverage of various core topics such as graph algorithms, data-mining algorithms, and a number of algorithms used in numerical and scientific computing applications. Hands-on programming experience using MPI on parallel computers. Real-world applications in this area will be discussed. *Prerequisite: CSC521.*

CSC534 Computer Security (3 crs.)

Network is one of the fastest growing technologies today. In recent years, the need for education in computer security and related topics has grown dramatically and is essential. Explains how networks work and covers several topics in data communications and Internet protocols in order to discuss in-depth topics in security. Students will have a hands-on experience with these concepts. Legal and ethical issues related with security will be discussed. *Prerequisite: CSC521.*

CSC550 Scientific Visualization (3 crs.)

Explores methods for representing and displaying large amounts of scientific data. Primary areas of study include: the human visual system; psychology of perception; algorithms for visualization; software tools; case studies in scientific disciplines. *Prerequisites: MAT318, CSC110, and CSC111.*

CSC570 Database Management Systems (3 crs.)

Examines the theory and practical issues underlying the design, development, and use of a DBMS. Topics include characteristics well-designed databases; high-level representation of an application using ER modeling; functional dependency using ER modeling, functional dependency theory, normalization and application toward a well-designed database; abstract query languages; query languages; concurrency; integrity; security. Advanced topics may be included. Students apply theory to practice in a number of projects involving design, creation, and use of a database.

CSC571 Advanced Databases (3 crs.)

A continuation of CSC570, this course explores advanced topics in database systems. Topics to be addressed include object-relational and object-oriented data models; database security; Introductions to data warehousing and data mining; XML; non-traditional data storage (e.g., multimedia, spatial data); statistical databases and statistical query language. *Prerequisite: CSC570.*

CSC592 Advanced Topics in Computer Science (3 crs.)

Students will research an emerging topic in computer science. In addition to reading appropriate journal articles, students may develop empirical studies to evaluate the current theoretical results.

CSC599 Independent Study (3 crs.)

Student will work closely with a faculty member to explore a topic not covered in our computer science courses. Can include research and/or development related to the topic.

Counseling (CNS)**CNS490 Selected Topics (1-3 crs.)****CNS502 The Role of the Elementary Counselor (3 crs.)**

Provides the prospective elementary school counselor with an understanding of concepts and techniques essential to the counseling and guidance process in the elementary school. A major consideration is the emerging role of the elementary counselor and his/her relationship to other pupil personnel services at that level. *Prerequisites: completion of Phase I and CNS585.*

CNS504 Introduction to School Counseling (3 crs.)

Studies the history of school counseling and the development of counselors and counseling programs in schools. Provides practical means to make use of counseling and guidance theories and techniques, as seen in school settings. In the course students will learn administrative activities that provide the framework for school counseling services. Course content studies prevention and intervention strategies that contribute to the academic mission of the school as well as students' career, personal, and social development. Effective leadership, proactive strategies, and advocacy for students and counseling programs are also covered.

CNS505 Organization and Administration of School Counseling Services (3 crs.)

Studies basic philosophy, principles, and current trends in the organization and administration of comprehensive school counseling programs. Emphasis is given to line-staff organization, guidance committees, counselor-teacher relationships, adult-community guidance services, and roles of school personnel and community agencies in understanding and promoting the school-community guidance programs. *Prerequisites: completion of Phase I and CNS585.*

CNS508 Marital, Couple, and Family Counseling (3 crs.)

Designed to aid student in gaining experience and competency in the use of therapeutic interventions with married person, couple, and families. Emphasis on the understanding of prominent theoretical modalities and applying the relevant techniques to classroom simulations. Students gain understanding and experience in dealing therapeutically with typical couple and family problematic concerns. *Prerequisite: completion of Phase I or permission of instructor, CNS 578.*

CNS509 Multicultural Counseling (3 crs.)

Designed to sensitize students to and promote an understanding of multiple cultures. Students will be encouraged to examine their own attitudes toward various groups, to explore their own identities, and to acquire expertise in the use of therapeutic interventions with various populations. Emphasis will be placed on the learning of approaches and the application of techniques that facilitate inter and intra group interaction.

CNS510 Drug and Alcohol Counseling (3 crs.)

Designed to aid students in understanding the theories of causation and treatment of alcohol and drug addiction abuse. Students also gain experience and competency in the use of therapeutic interventions and techniques through classroom simulations. *Prerequisite: completion of Phase I or permission of instructor.*

CNS512 Group Counseling and Leadership Skills (3 crs.)

Students will develop theoretical and experiential understandings of group purpose, development, dynamics, methods, and skills. Topics include characteristics of effective group leadership, group member

roles, and therapeutic factors. Attention is given to adapting strategies for various types of groups (i.e., task/work groups, psycho education groups, and counseling and psychotherapeutic groups) and across diverse populations. Includes an experiential group component where students will participate as members in a small group activity. *Prerequisite: CNS578.*

CNS515 Career Development (3 crs.)

A counseling-oriented course designed to enable the counselor to understand the psychosocial dynamics of identity and career development through the life span. Emphasizes development of counselor competencies in the areas of collecting, evaluating, classifying, and using accurate occupational, avocational, educational, and personal-social informational materials. Students will investigate theories of career development and career decision-making models; their relevance and utility to students' personal and professional interests will be considered throughout the course. Also considered are occupation and labor markets (micro and macro), computer-based career resources, and career relevant assessment instruments and techniques. Career counseling processes applicable to populations in a global economy are also studied. Other topics include the interrelationships among and between life roles and cultural factors, career development programming, educational planning, and ethical and legal issues in the career counseling process.

CNS519 Implications for Human Development for Counseling (3 crs.)

Specifically designed for counselors. Content is rooted in developmental theory with an emphasis on identity development. Professional counselors pay particular attention to our clients' development across the lifespan; implications of their development on all aspects of life weigh importantly on the way we conceptualize clients' challenges, adjustments, disorders, and growth. The information and experiences gained will serve as a structural foundation for understanding theories of development and their significance in the work professional counselors perform.

CNS522 Assessment Techniques (3 crs.)

The study of assessment as used in counseling and the helping processes including historical foundations, current concepts, procedures, psychometrics, and techniques. Students will learn assessment skills including selection, administration, scoring, interpretation, use of technology, and critique of specific measures. Practical applications covered will include assessing students with special needs, assessment bias, serving diverse populations, and legal and ethical principles of measurement. Emphasis is on the appropriate and meaningful use of assessment data in diagnosis, case conceptualization, treatment planning, and referral. *Prerequisite: CNS578.*

CNS524 The DSM and Psychopathology for a CNS Perspective (3 crs.)

Studies the classification system of psychopathology. Special emphasis placed on building counseling models based on the integration of the classification and the client's individual situation. *Prerequisite: CNS559.*

CNS530 Clinical Supervision Theory and Techniques (3 crs.)

Designed to help counselors in a variety of settings to develop and/or enhance their professional functioning as clinical supervisors. No prior supervision experience is necessary. A concurrent experience providing supervision will be included in the course. *Prerequisite: Master's degree in counseling or its equivalent.*

CNS531 Advanced Study in Multicultural Issues (3 crs.)

Designed for current practitioners in helping services who already have earned a master's degree who desire to expand knowledge and skills in working with diverse populations and in creating a society where "freedom and justice for all" can become a reality. *Prerequisite: Master's degree in counseling or its equivalent.*

CNS532 Advanced Drug and Alcohol Counseling (3 crs.)

Acquaints student with the concept of alcohol and drug dependence as a primary, progressive, chronic, potentially fatal, and symptomatic disease that impacts the entire family system. Explores the disease from a bio-psycho-social and spiritual perspective as well as demonstrating various multidisciplinary approaches to arresting and successfully treating the illness. Attention to principles of early intervention, prevention, special populations, and standards necessary for achieving certification as an addiction counselor in Pennsylvania. Explores the developmental models of recovery, relapse prevention methods, and treating the dually diagnosed client. Course designed to prepare students as facilitators who can utilize addiction concepts and skills in a variety of counseling settings. *Prerequisite: master's degree in counseling or its equivalent.*

CNS534 Treatment of DSM IV-TR Disorders (3 crs.)

Designed to engage practicing counselors in expanding their knowledge of the current DSM Disorders and its implication for developing treatment interventions and strategies. The classification system of pathology will be reviewed and current knowledge about the clinical presentation, etiology, and diagnosis of commonly encountered disorders will be explored. Models and theories that guide interventions and typical treatment settings will be discussed. Students will develop protocols for treatment and will be responsible for presenting these to class members. *Prerequisite: master's degree in counseling or its equivalent.*

CNS536 Counseling Challenging Adolescents (3 crs.)

Students will learn several unique ways of joining, finding empathy, developing and sustaining healthy boundaries, and creating ways of containing all that the most challenging adolescent clients bring to the therapeutic counseling relationship. A wide variety of professional counseling and therapy settings will be considered. *Prerequisite: master's degree in counseling or its equivalent.*

CNS537 Eating Disorders Across Gender, Cultural, and Racial Lines (3 crs.)

Designed to provide enhanced knowledge and in-depth understanding of the etiology of food and body image issues. Includes exploration of obsessions, compulsions, societal morays, and multiple messages and their effect on many groups of people. *Prerequisite: master's degree in counseling or its equivalent.*

CNS545 Leadership by Encouragement (3 crs.)

Provides a forum for students to learn how the principles and methods of Adlerian Psychology can be used to enhance leadership potential. Focus on assessing leadership style, listening, motivation, enhancing teamwork and productivity, and encouragement. *Prerequisite: at least a bachelor's or master's degree in counseling, psychology, education, social work, administration, or business.*

CNS546 Parent Education and Family Counseling (2 crs.)

Provides instruction in the practice and theory of parent education and family counseling primarily through parent education groups and the open forum center approach. Students will have the opportunity to observe and practice the methods. *Prerequisite: at least a bachelor's or master's degree in counseling, psychology, education, social work, administration, or business.*

CNS556 Guidance and Counseling Conference (1 cr.)

Concentrated one-week conference on a selected area of counseling and guidance. Recognized authorities in the field participate as lecturers and discussion leaders. In addition to participating in all aspects of the conference, students who are enrolled for credit attend an extra daily class session and complete an assignment related to the theme of the conference. A maximum of three semester hour credits earned in conferences may be applied toward meeting degree requirements.

CNS559 Introduction to the Helping Services (3 crs.)

Surveys a wide range of helping services and introduces the basic philosophical concepts underlying each, the principles by which such services operate, and the therapeutic practices which are characteristic of each service. Emphasis is on defining the helping relationship within each area and clarifying the ethical considerations which apply.

CNS560 Introduction to College Personnel Work (3 crs.)

Surveys basic principles and practices of student personnel work in higher education. Consideration is given to problems in residence hall management, counseling services, student activities, financial assistance, student government, and other relevant topics that promote an appreciation of the conduct of student personnel services in higher education.

CNS562 Student Personnel Work in Higher Education (3 crs.)

Designed to provide the role concept for students in student personnel work at the college/university level. Designed to deal with specific issues and trends in the field; develop a design or operational model for program development, implementation, and evaluation; establish an operational role concept for specific student personnel positions.

CNS563 Professional Orientation to Community Counseling (3 crs.)

Designed to provide a comprehensive overview of the rapidly evolving field of community counseling. Studies basic philosophy, principles, and current trends in the provision of community counseling services. Students gain understanding of topics such as: psycho-educational and developmental counseling, health-promotive services, indirect counseling services, crisis counseling, and ethical and legal issues.

CNS564 Grief and Loss Issues in Counseling (3 crs.)

Designed to help students identify, clarify the differences between grief, mourning, and bereavement and understand grief as a response to any loss, including death. Deals with the development of skills as a competent and caring counselor and helps to achieve a deeper self-understanding of the student's own feelings, attitudes, and values regarding loss and death. *Prerequisite: completion of Phase I or permission of instructor, CNS578.*

CNS565 The College Student and the College Environment (3 crs.)

Examines the impact of the college environment on both traditional and nontraditional students and provides in-depth understanding of the characteristics, attitudes, and developmental needs of those students. It also suggests methodology for identifying needs and assessing environmental characteristics.

CNS567 Counseling Children (3 crs.)

Intense study of basic theoretical foundations and approaches in counseling children, including play therapy. Childhood psychological disorders are surveyed using the current edition of the *Diagnostic Statistical Manual of Mental Disorders*. *Prerequisites: completion of Phase I and CNS573.*

CNS568 Professional Orientation to Mental Health Counseling (3 crs.)

Designed to provide a comprehensive overview of the rapidly evolving field of mental health counseling. Studies basic philosophy, principles and current trends in the provision of mental health counseling services. Students gain understanding of topics such as: treatment of psychopathology, diagnosis, direct counseling services, prevention and psychoeducational approaches, crisis counseling, and ethical and legal issues.

CNS570 Working with Dreams, Sandtrays and Music in Counseling (3 crs.)

Designed to acquaint students with the Hill cognitive-experiential model of dream work and the use of music and sandtray in counseling. This course includes a strong experiential component that provides students with an opportunity to practice various approaches for working with dreams and using music and sandtray in counseling. *Prerequisite: CNS578.*

CNS573 Theories of Counseling (3 crs.)

Intensive study of basic concepts and theoretical foundations of counseling. Emphasis is on the student's ability to conceptualize client concerns, select appropriate counseling interventions, and apply the relevant theories to classroom simulations. *Prerequisite: CNS559.*

CNS578 Pre-practicum in Counseling (3 crs.)

Designed to provide an understanding of, and applied practice in using, the fundamental skills of the helping process. Student-centered methods encourage collaboration, active listening, and peer-to-peer learning exchanges. Emphasizes the development of effective relationship building skills as well as the practice of approaches that facilitate client growth and change. Increased counselor self-understanding and self-analysis are a critical component of the course as well as students beginning to develop a personal style of counseling. Counselor and client characteristics, relationship variables, and external factors (e.g., societal and environmental) that influence the helping process will be addressed. *Prerequisite: CNS559.*

CNS580 Clinical Field Experience I (3 crs.)

The culminating experience for all programs, the field experience sequence consists of six (6) semester hours and is the internship requirement of the SU counseling programs. Students must complete 300 clock hours for each field experience in a professional setting appropriate to their career interests, skills, and program of study. Site selection must be approved by advisor. *Prerequisites: completion of Phases I and II, advisor's approval, attendance at orientation meeting the prior semester, pre-registration form, and candidacy. CNS589 is required to satisfy the six credits for field placement.*

CNS581 Counselor Supervision (3 crs.)

Provides experience in supervision of counselor trainees, including review of interview recordings; constructive critique of trainees, individually and in group settings; and reading and criticizing of written reports. Significant involvement with counselor trainees, if required, in order to experience a true supervisory and helping relationship. *Prerequisites: permission of the advisor and prior employment as a counselor. Note: Restricted to students enrolled in the Supervisory Certificate Program through Educational Administration and Foundations Department.*

CNS585 Practicum in Counseling (3 crs.)

Field-based assignment in an agency, school, or institutional setting providing supervised professional experiences. Students must accumulate a minimum of 150 clock hours at a site appropriate to their program of study during one academic semester. Students must have a site approved by their advisor prior to course registration. *Prerequisites: A grade of B or higher in CNS578, permission of advisor, attendance at orientation meeting the prior semester, and pre-registration form.*

CNS586 Advanced Practicum in Counseling (3-6 crs.)

Extension of CNS585, permits student to gain greater specialized competencies in the same general setting. *Prerequisites: CNS585, consent of advisor, attendance at orientation meeting the prior semester, and pre-registration form.*

CNS587 Research Seminar in Counseling (3 crs.)

Presents the advanced student an opportunity to examine, evaluate, synthesize, and bring into final form previous learning and research to a consistent philosophical approach. Students are expected to address topics such as: race relations, women's concerns, counseling gay people, human sexuality, family counseling and/or other appropriate counseling concerns as addressed by recent research. Course is offered on a pass/fail basis. *Prerequisite: CNS600.*

CNS588 Counseling Strategies and Techniques (3 crs.)

Introduces students to training and applied practice in a range of skills necessary to address counseling needs across the mental health continuum, from crisis intervention to promoting wellness. Areas of skill development include: disaster response and psychological first

aid, suicide risk assessment and prevention, crisis and trauma intervention, facilitating the change process, wellness models and strategies, and counselor self-care. Attention given to adapting strategies across the lifespan, including the needs of children, adolescents and older adults. *Prerequisites: completion of Phase I and CNS573.*

CNS589 Clinical Field Experience II (3 crs.)

Continuation of CNS580, Clinical Field Experience I, placement. Students must register for this course in order to satisfy the six (6) credit hour field experience requirement. Students must complete 300 clock hours for each field experience in a professional setting appropriate to their career interests, skills, and program of study. Site selection must be approved by advisor. *Prerequisites: CNS580, approval of advisor, and pre-registration form.*

CNS590 Advanced Clinical Field Experiences (3 crs.)

Continuation of the CNS580/589 field experience. *Prerequisites: CNS580/589, advisor's approval, and pre-registration form. Site selection must be approved by advisor.*

CNS593 Theories of Personality and their Implications for Counseling (3 crs.)

Acquaints counselors with the more prominent theories of normal personality development and supporting research evidence, with consideration given to the process of intervention and change within the counselee.

CNS596 Selected Topics (1-3 crs.)**CNS599 Independent Study (3-6 crs.)**

Provides opportunities for students to pursue independent study designed to develop critical thinking and individual initiative through planned scholarly endeavor. The student, under the advisement of an assigned faculty member, engages in a study of a significant program not clearly a part of existing courses. *Prerequisite: permission of advisor.*

CNS600 Research and Statistics (3 crs.)

Introduction to problems of structure and function of research in the counseling programs where attention is directed to the importance of individual differences, measurement of several variables, and the task of developmental understanding. Designed to develop competencies and explores empirical findings in both the production and consumption of current research. It considers experimental design, practical use of both descriptive and inferential statistics with application to measures of central tendency, variability, dispersion, correlation and tests of differences.

CNS602 Advanced School Counseling Field Experiences (3 crs.)

Continuation of the CNS580/589 field experience in schools. *Prerequisites: CNS580/589, advisor's approval, and pre-registration form. Site selection must be approved by advisor.*

CNS609 Internship (3 crs.)**CNS612 Thesis I (3 crs.)****CNS613 Thesis II (3 crs.)****Criminal Justice (CRJ)****CRJ501 Foundations of Justice (3 crs.)**

Examines the nature, application, and impact of various theoretical approaches, practices, and assumptions regarding the function and operation of the criminal justice system.

CRJ520 Justice Administration and Management (3 crs.)

Studies bureaucracy and complex organizations with emphasis on the concepts and practices of the administration and management of agencies in the criminal justice system.

CRJ550 Graduate Seminar (3 crs.)

Introduces graduate students to the basic concepts, principles, and issues involved in the development of drug control policy in the United States since the early 1700s and the profound impact these factors have had on the public perception of drug use and the manner in which the criminal justice system functions.

CRJ560 Theories of Crime and Delinquency (3 crs.)

Examines etiology of criminal behavior including the process of becoming a criminal, patterns of criminal behavior, and social and individual consequences of crime and delinquency.

CRJ570 Legal Trends and Issues (3 crs.)

Explores in detail current trends and issues in law as they relate to the operation and management of the criminal and juvenile justice system.

CRJ580 Juvenile Justice System (3 crs.)

Examines the goals, organization, and operations of agencies and institutions that work with youthful offenders including current policies and proposals for their reform.

CRJ585 Treatment and Rehabilitation (3 crs.)

Examination and analysis of historical and contemporary correctional treatment and rehabilitation strategies, philosophies, ideologies, and developments relevant to correctional, organizational, and management policies and practices. Students critically focus on theoretical, practical and policy issues relating to treatment and rehabilitation programs provided to adult and juvenile offender populations.

CRJ590 Justice Policy Analysis (3 crs.)

Analysis of the process by which policy decisions in criminal justice are derived and implemented and their consequence on the criminal justice system.

CRJ593 Independent Study (3 crs.)

Opportunity for student to pursue in-depth study on a topic or issue of personal interest under the direction and guidance of a department faculty member. *Prerequisite: CRJ600.*

CRJ594 Selected Topics (3 crs.)

Opportunity for the department to offer courses in areas of major interests not covered by regular course offerings.

CRJ595 Practicum I (3 crs.)

An original work done as a group or individual effort in an agency setting which results in a scholarly paper revolving around an issue germane to the participating agency. Significant involvement with the agency is necessary. The department must approve the selection of the agency and the issue. *Limited to "weekend" students.*

CRJ597 Practicum II (3 crs.)

An original work done as a group or individual effort in an agency setting which results in a scholarly paper revolving around an issue germane to the participating agency. Significant involvement with the agency is necessary. The department must approve the selection of the agency and the issue. *Limited to "weekend" students.*

CRJ600 Research Methods (3 crs.)

Survey of empirical research methods and their application in the field of criminal justice; includes research design, theories of sampling, data collection strategies and analysis of findings.

CRJ610 Quantitative Analysis (3 crs.)

Examines the relationship and application of statistical techniques to theory building and concept construction. Includes an overview of statistical methods with an emphasis on criminal justice. *Prerequisite: CRJ600.*

CRJ612 Thesis I (3 crs.)

CRJ613 Thesis II (3 crs.)

CRJ617 Internship I (3 crs.)

Provides an opportunity to apply classroom (theoretical) learning in an agency setting; encourages the development of a professional identity and an appropriate set of professional skills and values; helps students identify or clarify their career interests; provides agencies with an opportunity to observe and evaluate potential staff; and provides students with the opportunity to conduct participant research in a justice agency. Student will encounter a variety of real world situations in which previously learned skills must be applied under the supervision of a practitioner. A full range of criminal justice agencies will be available for student selection.

CRJ618 Internship II (3 crs.)

Provides an opportunity to apply classroom (theoretical) learning in an agency setting; encourages the development of a professional identity and an appropriate set of professional skills and values; helps students identify or clarify their career interests; provides agencies with an opportunity to observe and evaluate potential staff; and provides students with the opportunity to conduct participant research in a justice agency. Student will encounter a variety of real world situations in which previously learned skills must be applied under the supervision of a practitioner. A full range of criminal justice agencies will be available for student selection.

CRJ635 Restorative Justice (3 crs.)

Examines the elements of the restorative justice model and its application for criminal justice policy and practice. The restorative justice model features classical criminology, victimology, and cognitive therapy. Instructs students on three elements of the BARJ Model that includes community protection, youth accountability, and competency development.

Early Childhood/Elementary Education (ECH)

ECH410 Physical, Motor, and Sensory Development in Early Childhood (3 crs.)

Examines physical, motor, and sensory development of typically and atypically developing young children, birth through age eight years. Child health and wellness concerns included. Developmental information applied to best practices in early childhood education and early intervention settings. *Field experiences required.*

ECH415 Professional Practicum in PK-4 (3 crs.)

This field-based course is for senior-level student participation in early childhood environments. Emphasis is placed on building partnerships with families and various community entities and implementing facets of an integrated curriculum. Instructor led seminars are scheduled throughout the course. Students will complete a total of at least 125 hours in a placement with students aged 3-9 years. *Prerequisites: ECH210, ECH220, ECH260, ECH320, and ECH370. Must be taken concurrently with ECH440 and ECH453.*

ECH440 Building Family and Community Partnerships (3 crs.)

Emphasis is on understanding contemporary families with young children. Family diversity and fostering reciprocal relationships are stressed. Field experiences are required and will be completed in ECH415. Field experiences include both observation of and participation in family/school/community interactions. *Prerequisites: ECH210, ECH220, ECH260, ECH320, ECH370. Must be taken concurrently with ECH415 and ECH453.*

ECH453 Integrated Curriculum Pre K-4 (3 crs.)

Students will apply Pennsylvania standards for math, science, literacy, social studies and the arts. Competencies will be practiced through projects, portfolio collections and demonstrations. *Prerequisites: ECH210, ECH220, ECH253, ECH260, ECH320, ECH333, ECH343, ECH370, ECH373, ECH393, RDG323, RDG363, and RDG383. To be taken concurrently with ECH415 and ECH440.*

ECH460 Family School and Community Partnerships (3 crs.)

Surveys current and continuing issues in early childhood education. Includes child care, pre-primary programs and parent involvement, implementing a parent involvement project, and a individual study of a particular development area and/or processes. *Prerequisite: A course in child development.*

ECH462 Practicum in Early Childhood (3 crs.)

Supervised observation and participation in an early childhood (pre-primary) setting for at least 150 clock hours. Experiences in planning, implementing, and assessing education for young children and families are required.

ECH470 Language Development, Literacy, and Play in Early Childhood Education (3 crs.)

Preparation to understand the existing relationships among language development, early literacy development, and play behaviors in young children from birth through eight years. Application made to early childhood education and early intervention settings. Field experiences in an assigned practicum setting required. *Prerequisites: TCH160, ECH200, ECH330, and senior status.*

ECH480 Early Childhood Professional Seminar (3 crs.)

Students in this course will demonstrate professional competencies in early childhood education student teaching placement. They will demonstrate their understanding of the value of and strategies for creating a community of learners. Practice of professional dispositions and behaviors in an inclusive setting will be refined. *Guided field assignments will be required in ECH489. Must be taken concurrently with ECH489.*

ECH489 Early Childhood Student Teaching (12 crs.)

This supervised, full-semester field-based experience is the culmination of the early childhood teacher preparation program. Early childhood teacher candidates are placed in pre-kindergarten, kindergarten, or first through fourth grade classrooms. Candidates will observe teachers, apply developmental theory and best educational practice, demonstrate dispositions for teaching, engage in ethical and effective professional practice to support the learning of all children. *Prerequisites: completion of all course requirements for the early childhood certification major.*

ECH510 Including Children with Special Needs in Early Childhood Education (3 crs.)

Presents current research about early childhood inclusion models and information about developing classroom-based services for young children with disabilities. Attention given to family-centered practice, collaboration with other disciplines, developmentally appropriate assessment, best practices for instruction, and preparing children for transition to new learning environments.

ECH520 Social and Emotional Development in Early Childhood (3 crs.)

Examines current research and theory about social and emotional development in young children, birth through eight years. Emphasis is on classroom practices, including instruction and discipline, which facilitate healthy social and emotional development in young children. *Field experiences required.*

ECH530 Cognitive and Language Development in Early Childhood Education (3 crs.)

Examines current research and theory about cognitive and language development in young children, birth through eight years. Emphasis is on classroom practices, including instruction and discipline, which facilitate cognitive and language development in young children. *Field experiences required.*

ECH540 Families and Early Childhood Education (3 crs.)

Examines theory and research from the area of family studies. Emphasis is on characteristics of families with young children and how early childhood practitioners can best apply this information in their work settings. *Field assignments required.*

ECH563 Leadership in Early Childhood Education (3 crs.)

Designed to prepare personnel to function in the role of administrator of early childhood programs. Examines types of early childhood programs and their underlying rationales, ways of establishing early childhood programs, methods of funding and financing programs, and considers the coordinating role of the administrator in working with other personnel. *Prerequisite: permission of instructor.*

ECH577 Early Childhood Curriculum and Assessment (3 crs.)

Investigates contemporary curricular issues, model programs, and appropriate forms of assessment of young children. Curriculum, teaching strategies, and program organization and evaluation decisions are analyzed from the viewpoints of current theory and research.

Earth Science (ESS)

ESS404 Applied Meteorology and Climatology (3 crs.)

Intensive study of interaction between various atmospheric parameters and the natural or human-modified surfaces of the earth centered on the applied nature of the atmosphere including discussion of urban, human, agricultural, architectural, and commercial aspects of society. Computer simulations and mapping are utilized to enhance understanding. Each student carries out a field study on a particular problem of atmospheric interest. *Prerequisite: ESS111 or ESS355.*

ESS413 Mineral and Rock Resources (3 crs.)

Deals with metallic ore deposits such as iron, ferroalloys and nonferrous metals, mineral fuels, and other selected minerals of economic significance. Emphasis on geologic occurrence and mode of origin, geographical distribution, and importance to humans.

ESS442 Environmental Geology (3 crs.)

Deals with relationships between man and the geological habitat. Concerned with problems people have in using the earth and the reaction of the earth to that use in both a rural and urban setting. Stress placed on developing problem-solving skills in collecting, recording, and interpreting data through field investigations and simulation techniques. *Prerequisite: ESS110.*

ESS490 Selected Topics (1-3 crs.)**ESS594 Selected Topics (1-3 crs.)****ESS599 Independent Study (3 crs.)**

Economics (ECO)

ECO484 Mathematical Economics (3 crs.)

Covers the specification of economic models in mathematical terms. Applications of mathematical analysis to both macroeconomic and microeconomic concepts are presented. *Prerequisites: ECO101 and ECO102; and MAT181 or MAT211.*

ECO485 Econometrics (3 crs.)

Covers statistical estimation and testing of economic models. Topics include specification of models, data problems, and estimation problems encountered in the study of economics, such as serial correlation, heteroscedasticity, autoregression, lag models, and identification. *Prerequisites: ECO101 and ECO102.*

ECO490 Selected Topics (3 crs.)

Education (EDU)

EDU410 Environmental Education Practicum (3 crs.)

Opportunity to apply knowledge gained in previous courses and other experiences to a practical situation. Includes activities specifically designed to develop and evaluate skills needed to create a course of study for teaching environmental education in the elementary and secondary schools. An integral part is working with both elementary and secondary students in the application of both skills and knowledge. *Prerequisite: approval of coordinator of environmental education.*

EDU412 Teaching Social Studies in Secondary Schools I (3 crs.)

Designed to acquaint the prospective teacher of social studies with the philosophy of the field, curriculum preparation and materials, and recent methods and techniques. Course outline, preparation of teaching units, testing, and visual aids are stressed. *Must be taken concurrently with EDU413.*

EDU413 Teaching of Social Studies II (3 crs.)

Explores the rationale for media use in education, provides an opportunity to develop audiovisual materials and become familiar with commercial materials to supplement teaching techniques and hands-on experiences with a variety of media equipment. Incorporates techniques of evaluation and testing through presentations and projects, which enhance student decision making to include these elements in classroom instructions. *Must be taken concurrently with EDU412.*

EDU420 Microcomputers in the Classroom (3 crs.)

Provides basic knowledge of evolution and operation of a microcomputer system. A variety of educational applications are reviewed and analyzed for instructional contributions. Using recommended evaluation procedures, software reviewed and discussed as to classroom utilization.

EDU421 Teaching of English in Secondary Schools (3 crs.)

Review of language arts requirements of secondary schools with special reference to grade placement and adaptation of materials, appraisal of results, and the development of programs of study. Directed observation in the laboratory school is frequently employed.

EDU422: Methods of Teaching English in Secondary Schools (3 crs.)

Second half of methods block for secondary certification for English majors. Builds on EDU290 and completes preparation for student teaching. Will learn how to apply many of the concepts of EDU290 and will begin more specifically elements into practice. *Prerequisite: EDU290.*

EDU426 Methods of Teaching Foreign Languages (3 crs.)

Focuses on techniques and materials for teaching foreign languages in the K-12 school setting. Theoretical rationales for a variety of methodologies and specific techniques examined along with the implications of findings from research in second language acquisition. Through a variety of strategies and experiences students develop those skills needed to begin a successful teaching career. *Prerequisite: permission of instructor.*

EDU429 Methods of Teaching Business Subjects I (3 crs.)

Focuses on skills and knowledge needed by pre-service teachers as they learn to design instructional programs in the areas of business and computer education. Particular focus is on identification and selection of appropriate curriculum materials, methods of presenting information to diverse groups of students, and the educational technology which supports the instructional program. Classroom management techniques, curriculum considerations, and strategies for teaching business subjects are stressed. *Must be taken concurrently with EDU431.*

EDU431 Methods of Teaching Business Subjects II (3 crs.)

Focuses on topics of educational and psychological measurement and evaluation and their use by classroom teachers, curriculum supervisors, school system administrators, and educational researchers. Evaluation of student progress in a variety of educational settings is addressed. Case studies focusing on various aspects of teaching provide an opportunity for reflection on all aspects of classroom instruction. *Must be taken concurrently with EDU429.*

EDU434 Teaching of Mathematics in the Secondary Schools I (3 crs.)

Covers theories of learning mathematics, national and state standards, and educational issues related to teaching and learning mathematics. Mathematical content and curricula for middle school and high school students will be explored and analyzed. Lesson and long-range planning and the classroom environment are included.

EDU435 Teaching of Mathematics in the Secondary Schools II (3 crs.)

Covers instructional and assessment strategies for middle school and high school mathematics classrooms. Differentiated instruction techniques, the use of student-centered approaches, and reading and writing connections are included. Students will participate in pre-student teaching clinical experiences. *Prerequisite: EDU 434.*

EDU440 Teaching of Science in Secondary Schools (3 crs.)

Students develop an instructional philosophy through discussions and reading as well as experience in simulated teaching activities. Use of demonstrations, experiments, visual aids, projects, cooperative learning, and other inquiry and discovery activities are stressed. Additional topics include individual differences among students, handicapped, or reading disabled. *Must be taken concurrently with EDU441.*

EDU441 Curriculum and Evaluation in the Secondary Science Classroom (3 crs.)

Understanding of inter-relatedness between the life science, physical science, chemistry, and earth and space science curricula through reading, demonstrations, and visits to schools. Emphasis on relationships among learning objectives, teaching/learning activities, and the attainment of those objectives. Evaluation component includes construction of classroom rubrics, quizzes and tests, and the analysis and improvement of those assessment tools. *Must be taken concurrently with EDU440.*

EDU490 Selected Topics (1-3 crs.)

EDU495 Student Teaching and Professional Practicum (12 crs.)

Professional site-based experience provides a full semester of guided teaching in the K-12 schools during which the student, under the direction of a qualified cooperating teacher and university supervisor, takes increasing responsibility for planning and directing the learning experience of a specific group(s) of students.

EDU501 Mathematics Curricula in the Secondary School (3 crs.)

Study of wide range of math curricula, including those for the non-college intending as well as for the college intending. General curriculum problems and relevant research studied. Implications for curriculum of national standards for school mathematics and the role of technology will be considered.

EDU502 Strategies and Tactics in Teaching Mathematics (3 crs.)

Utilizes the reflective model in solving pedagogical problems which arise in mathematics classes, participants solve their own problem(s) using resources such as the library, other students, and the instructor. Attention is given to innovative techniques in mathematics education, the role of technology, and problem-solving processes. A core of teaching techniques consistent with national standards for school mathematics are studied.

Education of Exceptional Children/Special Education (EEC)

EEC411 Introduction to Exceptionality (3 crs.)

Provides a background in the field of special education and the nature of exceptionality in children and youth. Emphasis on societal attitudes and practices in relation to persons with exceptionalities, current practices in identifying and classifying children and youth with exceptionalities, characteristics of all exceptional population groups, programmatic needs of individuals with exceptionalities, and issues and trends in the various fields that impact on diagnosis, classification, and programming or service delivery. The knowledge base comes out of social, cognitive, and developmental psychology, medical aspects of exceptionality, educational law and policy, and special education.

EEC423 Effective Instructional Strategies for Children with Exceptionalities (3 crs.)

Designed to prepare both general and special education teachers to effectively teach students with disabilities in general education settings. Emphasis given to utilizing evidence based instructional practices for students with varying disabilities, creating a positive learning environment, collaborating and communicating with other school personnel and parents, and implementing positive behavioral interventions. *Prerequisite: EEC273 or EEC411 or permission of the instructor.*

EEC444 Formal/Informal Assessment of Individuals with Exceptionalities (3 crs.)

Introduces a learning systems model for the educational evaluation of exceptional children. Tests of intelligence, language development, academic achievement, gross and fine motor skill, and social and emotional development are studied along with other data gathering techniques such as anecdotal records, behavior checklists, and parent interviews. Emphasis given to identification of those learning and behavior correlates essential in generating prescriptive programs for exceptional children. Class presentation includes lecture, discussion, films, demonstrations on video tape, and actual experience in administering and scoring selected tests. *Prerequisites: EEC411 and EEC475 or permission of the instructor.*

EEC445 Proactive Approaches for Classroom and Behavior Management (3 crs.)

Provides instruction and experience in individual and group aspects of classroom management, on proactive versus reactive interventions, defining and prioritizing behaviors, collecting and interpreting observational data, and methods for increasing desirable behaviors and decreasing undesirable behaviors. Discusses generalization and maintenance of behaviors, and self-management. Writing effective behavior management plans emphasized while focusing on ethical, legal, and proactive practices. *Prerequisite: EEC273, or permission of the instructor.*

EEC447 Instructional Content and Practices for Special Education (3 crs.)

Advanced study of problems of curricular development including models, content, vehicles of implementation, and evaluation aspects. Students develop curricular solutions to professional and situational needs. Includes the development of Individualized Education Programs (IEPs), working with supervisors, and instructional strategies for teaching academics, social, vocational, and leisure skills.

EEC474 Educational Needs of the Gifted Child (3 crs.)

Examines characteristics and needs of gifted and talented students through reading and discussion of case studies and the literature. Nature of desirable individual and group activities satisfying to gifted students is explored for use in the school program.

EEC483 Assessing Children with Exceptionalities for Curricular Decision-Making (3 crs.)

Designed to provide teacher candidates with a comprehensive overview of the skills, processes, and research-based interventions for linking assessment and instructional decision-making in inclusive settings for students with disabilities. The academic core areas of literacy, writing, math, and behavior will focus on preparing candidates to participate in pre-referral data collection, contribution to the identification of students with disabilities, IEP writing, progress monitoring, and curriculum based assessment. *Prerequisite: EEC273 or EEC411 or permission of instructor.*

EEC490 Selected Topics (1-3 crs.)**EEC513 Medical and Psychological Aspects of Disability (3 crs.)**

Considers physiological and related factors affecting learning and behavior. Medical considerations related to causations and remediation are stressed. Study of physiological, neurological, and psychiatric aspects of the learning and behavior patterns of individuals with exceptionalities are made. *Prerequisite: EEC411.*

EEC525 Technology: Instructional, Assistive, Universal Design to Support Academics (3 crs.)

Designed to teach educators how to integrate technology into instruction to support achievement in general and special education classes, specifically to support reading, mathematics, and writing achievement. Focuses on the use of technology for universal design for learning and using assistive technology with students with disabilities. *Prerequisite: EEC273 or EEC411 or permission of instructor.*

EEC526 Topics in Special Education for School Counselors and other School Professionals: Working with Students with Exceptionalities (3 crs.)

Provides a background in the field of special education and the nature of exceptionality in children and youth. Emphasis on societal attitudes and practices in relation to persons with exceptionalities, current practices in identifying and classifying children and youth with exceptionalities, characteristics of all exceptional population groups, programmatic needs of individuals with exceptionalities, and issues and trends in the various fields that impact on diagnosis, classification, and programming or service delivery. The knowledge base comes out of social, cognitive, and developmental psychology, medical aspects of exceptionality, educational law and policy, and special education.

EEC543 Selected Studies in Special Education (1-3 crs.)

Opportunity for qualified students to pursue selected studies in areas of special interest such as preparation and development of new curriculum materials, investigations leading to a greater knowledge of procedures for teaching, and the survey and analysis of current practices in the organization and the curriculum of the special education program. *Prerequisites: Six graduate credits in special education and approval of department chair.*

EEC546 Transition to Adult Life for Students with Disabilities (3 crs.)

Addresses transition planning and implementation of services from students moving from secondary to post-secondary life experiences. Emphasizes formal and informal assessments of skills and interests applied to research-based transition techniques for ensuring success in independent living, work, and post-secondary education environments. *Prerequisite: EEC273 or EEC411 or permission of instructor.*

EEC548 Direct Instruction (3 crs.)

Covers carefully sequenced, highly-prescriptive teacher directed procedures for teaching decoding, comprehension, content, and study skills. Rather than merely "list" ways to teach skills, direct instruction method discusses when a skill should be taught, what examples to teach, how to correct errors, and the relationship among different reading skills. *Prerequisite: EEC273 or EEC411 or permission of instructor.*

EEC550 Foundations of Learning Disabilities (3 crs.)

Provides a study of historical, empirical, and research findings, forces, and factors making up the fundamental structure of the field of learning disabilities. Topics include: causes of learning disorders, characteristics of individuals with learning deficits, models of learning dysfunctions, and perceptual-conceptual learning processes and cerebral components. Additionally, the discussion will include the use of dietary, medical and physiological intervention techniques, administrative programming and parental concerns and responsibilities. New topics and new areas will be included as they are noted in the research literature. Methods of presentation will be basically lecture and discussion. *Prerequisite: EEC273 or EEC411 or permission of instructor.*

EEC551 Programming and Instruction for Students with Learning Disabilities (3 crs.)

Advanced course in the field of learning disabilities across the life span; from early childhood to adulthood. Designed to familiarize students with how to teach students with learning disabilities in reading, writing, spelling, math, social studies, science, and social skills by developing research based interventions supported by assessment data. Designed to help students become critical thinkers, creative and expert planners, and effective practitioners. *Prerequisite: EEC550.*

EEC552 Language Disorders in Individuals with Learning Disabilities (3 crs.)

Study of children's language development as a basis for intensive study of language disorders in the individual with learning disabilities, disorders of oral language and usage, diagnosis and remediation of the disorder. Emphasis on the interrelationships among oral language, reading and written language disorders. Class presentations include lecture, discussion, and videotape demonstrations. Students gain experience in doing language analysis and developing remediation strategies to be integrated in the overall remediation plan of the student. *Prerequisite: EEC550.*

EEC560 Foundations of Intellectual Disabilities and Autism (3 crs.)

Provides for the study of the learning capabilities and processes of persons who have significant impairment in intellectual functioning, adaptive behaviors, and autism. Emphasis is placed on understanding cognitive development and the impact of cognitive disabilities on the lives of individuals with intellectual impairment and autism spectrum disorders across the life span. *Prerequisite: EEC273 or permission of instructor.*

EEC561 Programming and Instruction for Intellectual Disabilities and Autism (3 crs.)

Provides for the study of educational strategies and materials for use with students who have moderate to profound levels of impairment in intellectual functioning and autism. The adaptation of instructional strategies and materials to meet the unique needs of the students when necessary is also stressed. Education for independent functioning in self-care skills, social skills, and daily living skills is emphasized. *Prerequisite: EEC560 or permission of the instructor.*

EEC562 Programming and Instruction for Individuals with Severe and Profound Mental Retardation (3 crs.)

Studies educational processes of students with severe and profound mental retardation. Provides understanding of curriculum development, methods, materials, and special teaching techniques and strategies as applied in both public school and institutional settings. Major emphasis on programming for self-help and social skill development. *Prerequisite: EEC560.*

EEC 570 Foundations, Proactive Approaches, and Management of Students with Emotional and/or Behavioral Disorders (3 crs.)

A foundation course that explores the historical and current philosophical models and approaches in the field of behavior disorders including definitions, characteristics, assessment approaches, educational, mental health, and the inter-disciplinary process for working with children and youth. Predominant theoretical models, significant educators/theorists, major disorders, and interventions are identified, discussed, applied, and synthesized relative to their influence on the educational system in meeting the diverse needs of children with emotional or behavioral problems and their families. Contemporary issues and trends examined to understand the social, behavioral, and emotional problems of children and youth. *Prerequisite: EEC273 or EEC411 or permission of instructor.*

EEC571 Effective Practices for Programming and Instruction for Students with Emotional and/or Behavior Disorders (3 crs.)

Methods course focuses on development of appropriate curriculum and strategies based on individual needs, practical application and methods, and assessment. Students have a field experience working with students with behavior disorders, their teachers and/or their families at the elementary, middle, secondary level and/or in alternative settings. Specific emphasis placed on what educators can do to promote learning for students with behavior disorders including initial planning and organization, assessment, selection and modification of curriculum, communication with others, and positive behavior management programs with an emphasis on teaching social skills and appropriate curriculum as an integrated strategy using current and best practices. *Prerequisite: EEC570.*

EEC572 Counseling and Group Process for Children with Behavior Disorders (3 crs.)

Explores strategies and procedures for individual and group counseling, role playing, and discussion groups. These techniques are built on understanding of group processes and basic theories of counseling as they relate to educational programming for children with behavior disorders. *Prerequisite: EEC411 or EEC570.*

EEC590 Practicum I in Special Education (3 crs.)

Designed to extend student's professional preparation beyond resources of the college to include resources of the community and region. Practicum is intended to permit graduate student to engage in supervised professional activities in selected cooperating community agencies, local education agencies, or intermediate units. *Prerequisite: permission of instructor.*

EEC591 Practicum II in Special Education (3 crs.)

Supervised intensive field experience designed to provide the candidate for certification in special education with field experiences in assessment techniques, special class operation, participating in child study teams, and curriculum development. *Prerequisite: permission of instructor.*

EEC592 Clinical Assessment of Individuals with Exceptionalities (3 crs.)

Provides an intensively supervised experience in individual assessment of individuals with exceptionalities. Students work in small teams with a faculty member and are responsible for a complete educational assessment of selected children. Each individual team member gains experience in both parent and teacher interviewing, test administration and interpretation, team staffings, report writing and summary interpretation conferences with both student and his/her parents. *Offered only during summer session. Prerequisite: permission of advisor.*

EEC594 Selected Topics (1-3 crs.)

EEC599 Independent Study (3 crs.)

EEC609 Internship (3 crs.)

Educational Leadership and Policy (ELP)

ELP490 Selected Topics (1-3 crs.)

ELP500 General School Administration (3 crs.)

Introductory study of the organization and administration of American public education for persons interested in pursuing a professional career in educational administration. A basic understanding of educational leadership is developed through an integration of theory, knowledge, and actual practice. Designed for teachers, school board members, and other interested lay citizens who wish to know more about educational administration.

ELP503 Educational Foundations: Contemporary Issues (3 crs.)

Comprehensive and contemporary offering designed to explore the connections among the present-day complexities of schools and the historical, philosophical, and sociological backgrounds from which they emerged. Examines the reform and restructuring agendas of the past two decades, critically exploring proposed solutions to the most pressing educational problems facing society in the 21st century.

ELP506-507 Instructional Supervision: A School-University Partnership (2 crs. each)

Enables in-service teachers to consistently and effectively develop their supervisory skills for working closely as cooperating teachers with student teachers from Shippensburg University, as mentors assisting novices entering the profession, and as peer coaches collaborating with one another for professional development. *Prerequisites: teacher certification and a minimum of two years of teaching.*

ELP508 Graduate Seminar in Instructional Strategies (3 crs.)

Comprehensive study and systematic examination of classroom instructional strategies. Designed to involve teachers in the process of analyzing and improving the effectiveness of their methods. Teachers develop and cultivate alternative instructional strategies on the basis of their analyses through the utilization of various instruments and programs, complemented by the process of microteaching.

ELP510 Special Education Law (3 crs.)

Provides a comprehensive and current overview of the major federal laws and judicial interpretations of those laws that apply to the education of children with disabilities. Includes discussions of inclusion, effective accommodations, IEPs, discipline, equal protection, and procedural due process. Examines the six principles of the Individuals with Disabilities Act and Chapters 14, 15, and 16 of the Pennsylvania School Code. Helps students understand what the law requires so they will become effective educational leaders capable of making appropriate decisions that comply with these laws.

ELP511 Philosophical Foundations of Education (3 crs.)

Survey of major European and American philosophies which have influenced education and outstanding philosophy schools which have affected education in relationship to changing patterns of American schools with respect to procedures and curricular materials.

ELP512 The Curriculum in the Modern Secondary School (3 crs.)

Deals with the changing curriculum of the American secondary school. Topics include the history and status of new curriculum projects with the controversy, problems, and issues involved.

ELP513 Sociological Foundations of Education (3 crs.)

Attempts an analysis and understanding of social factors in the socialization of the individual and the process of education. Begins with the context of culture and studies the structure and functioning of the social system in those areas which particularly seem to impinge upon the specialization process and which particularly affect the school and the child. Considers the institutions which are of fundamental importance in socialization and education. Makes use of significant sociological data and principles which are applicable to educational practice and are indicative of what educational policies and practices might be.

ELP514 Practicum I Leadership Field Experiences at the Building Level (3 crs.)

Provides an initial exploration and exposure to leadership roles at the building setting within the school environment and should be taken as part of candidate's Tier 1 cluster of courses at beginning of program of study. Candidates expected to log 180 hours of practical field experiences to include, but not limited to, shadowing school leaders, observing other educators, assuming responsibility for basic leadership activities as assigned by mentor, and conducting a case study on leadership concepts. In addition, candidate will participate in three leadership seminars which focus on leadership foundations and best practices as articulated by current leaders in field and a basic action research activity. Candidates begin to explore role of the principal/supervisor as an agent of change and/or reform.

ELP515 The Role of Research and Data Informed Decision-Making for School Leaders (3 crs.)

Designed to provide school administrators with the knowledge and skills necessary to be intelligent consumers and practitioners of research. Research designs, methods, and results are important tools for leadership and decision-making: administrators should be able to evaluate research studies and implement the findings. Requirements of federal legislation necessitates leadership that is, in part, derived from data-based decision making. Additionally, there may be situations in which an administrator is responsible for constructing a research proposal to qualify for a grant or to lead change in an educational program.

ELP516 Curriculum Assessment and Instructional PK-12 for Diverse Student Populations (3 crs.)

Focuses on curriculum development, implementation, and assessment (through instructional practice in U.S. public schools. Designed for both future school leaders and central office administrators, students will study curriculum from the foundation of three bases: (1) social forces, (2) theories of human development, and (3) the nature of learning and learning styles. Bases will assist students in defining curriculum by helping them understand key issues from both an historical perspective and current thinking. Useful for individuals aspiring to be (or already serving as) principals, supervisors, counseling personnel, subject area specialists, and superintendents. Emphasis placed on approaches to developing, evaluating, and articulating curricular changes drawn from a wide variety of subject areas. As a result students will be knowledgeable of the fundamentals of curriculum; the connection between curriculum, instruction, and assessment; current curricular issues; innovative approaches to curricula; planning curricular strategies; and analyzing current curricula.

ELP517 Leadership in Technology and Effective Program Delivery (3 crs.)

Designed to provide future school administrators with the requisite skill sets and conceptual knowledge needed for effective 21st century leadership. Understanding technology as a tool for learning, managing, analyzing, communicating, and collaborating is integral to successful school leadership at the classroom, building, and central office levels. Topics explored include technology integration, digital citizenship, use of technology in systemic organizational improvement, professional growth, digital culture, and visionary leadership. In addition to developing personal philosophies regarding use of technology in teaching, learning, and leading, each student will develop a personal portfolio of resources.

ELP518 The Role of Supervision in Promoting Student Achievement (3 crs.)

Designed for educational leaders, whether they are practicing administrators, subject-area supervisors, department chairpersons, cooperating teachers, or mentors. Principal thrust is to facilitate the formulation and implementation of a teacher evaluation and supervision system--based on data-driven and researched-based strategies and practical skills, and supported by law--that promotes enhanced student learning and quality teaching. Treats supervision and evaluation as two separate but complementary functions that should be integrated into a coherent system that provides differentiated opportunities for teacher growth and evidence-based quality assurance. Assists in developing the research-base, practical skills, and necessary dispositions to meet the needs of all teachers, regardless of their current career stage or level of performance. Many class meetings are work sessions that focus on learning and refining the skills necessary to evaluate the instructional act and to support the professional growth of teachers and will include individual and group activities in a supportive environment where participants actively engage in and reflect upon their conceptual understanding and skill development relative to evaluation and supervision.

ELP519 Advanced Leadership and the School Principal PK-12 (3 crs.)

Introduces future educational leaders to school level administration. Focusing on the multi-faceted roles of a school leader, students will study the principal through the lens of the principal as a learner, mentor, instructional leader, supervisor, manager, politician, advocate, and innovator. Combining theory with practice, students will obtain a deeper understanding of the complexity of leadership at the building level.

ELP520 School Finance and Student Learning (3 crs.)

Developed to provide aspiring and practicing elementary and secondary building administrators and supervisors with knowledge necessary to understand and manage department and building-level financial responsibilities by addressing resource management and fiscal issues that affect funding and programming at the building level. Among topics considered are historical perspectives on school finance, current financial issues, trends, and the practical aspects of budget development.

ELP521 Legal and Ethical Issues that Impact on Student Learning (3 crs.)

Focuses on the legal foundations for the establishment and operation of public schools in the United States and Pennsylvania in particular. Assists students in understanding key issues that impact on student learning from both an historical and current perspective. Students should be knowledgeable in all important aspects of school law from basic rights of individuals to the legal requirements for designing and maintaining appropriate school environments for learning. In addition to a review of landmark cases and current issues, students will also study laws and topics specific to building level leadership in Pennsylvania.

ELP522 Practicum II Advanced Leadership Field Experiences at the Building Level (3 crs.)

Designed as a capstone experience, this practicum provides candidates with the opportunity to assess, develop, and refine knowledge, skills and dispositions acquired as a part of their programs of study. Major focus is on instructional leadership, improving student learning, evidence based decision making, and the role of the building leader as an agent of reform. Candidates expected to log 180 hours of practical field experiences plus complete a major instructional leadership project and a second action research project. Candidate will participate in three leadership seminars which will focus on their platform of beliefs, professional development plans, and future Act 45 requirements.

ELP530 The Instructional Leader in the Middle School (3 crs.)

Comprehensive study and systematic examination of educational programs designed to provide a transition between elementary school and secondary education. Special emphasis on the role of the middle school instructional leader in the following areas: (1) specific competencies in the unique physiological, psychological, socio-logical, and emotional characteristics of pre- and early adolescent children; (2) specific competencies in the development of appropriate curriculum and instructional programs designed to meet the needs of pre- and early adolescent children; (3) specific administrative and supervisory competencies in working with teachers, staff, community support personnel, and parents in the operation of educational programs for pre- and early adolescent children; and (4) specific competencies in research relative to existing junior high school/middle school educational programs in Pennsylvania and the nation.

ELP569 Seminar: Diversity in Education (3 crs.)

Increases the awareness of administrators, educators, and related school personnel to the problems, challenges, and issues faced by various cultural minority students as they strive to become incorporated in their respective schools within the mainstream of American society. Stresses the various strategies, methods, and techniques educators need to know to write and execute administrative policies and practices and to design and implement curriculum and teaching strategies that reflect the ethnic diversity and cultural minorities found within their respective buildings and school districts. Emphasis placed on the Black and Hispanic populations.

ELP580 Statistical Methods in Education (3 crs.)

Designed to enable the student to interpret the scientific literature in education and psychology and to make the computations involved in the use of tests and original investigations that require statistical technique. Measures of central tendency, variability, and correlations are included.

ELP594 Selected Topics (1-3 crs.)

ELP612 Educational Leadership, Policy and Governance (3 crs.)

Examines the theories of leadership and organization and their application to administrative practices. Sociological, psychological, and organizational models will be described and analyzed to gain insight into administrative practices and processes such as decision making, group motivation, goal setting, delegating, conflict resolution, and site-based management. Extensive research of current practices required. Course designed to target current issues and problematic situations facing the central office administrator in today's dynamic system of public education.

ELP618 Curriculum Theory and Development (3 crs.)

Designed for administrators who are/will be leaders in the curriculum area, and viewed from the macro-curriculum perspective instead of the micro-curriculum perspective. Philosophies of education and their influences on basic education are studied. Current and recent trends in education are analyzed and compared to basic educational philosophies. Major thrust is management, development, and evaluation of the total curriculum. Recent research on change and effective schools examined and students encouraged to develop a rationale for administrative action. Roles of supervisors, principals, and central office personnel examined as they relate to curriculum management, development, and evaluation.

ELP619 Leadership for Pupil Services (3 crs.)

Designed for students in administrator certification programs who want to develop skills necessary to provide leadership for pupil services programs in school organizations. Areas of focus include: organization and development of pupil services; team approaches for meeting individual student needs in inclusive learning environments; underlying assumptions of pupil services programs; supervision and staffing; financing; and crisis prevention and response management. Attention will be given to roles of building principals and central office staff in pupil services programs. Community support systems will be addressed with regard to the manner in which they provide assistance to and interact with students, parents, and schools (e.g., juvenile justice, public health, mental health, social services, employers).

ELP620 Thesis (3 crs.)

Elective course offered within the master's program in elementary/middle or middle/secondary administration. Students enrolled in *ELP515* select a committee, a chair, and complete the proposal (the first three chapters of the thesis), including human subjects review. During *ELP620*, student defends the proposal begun in *ELP515*, gathers data, completes the writing of the thesis, and defends completed thesis. For students with an interest in research and those who expect to pursue a doctorate.

ELP621 Practicum I Strategic Leadership in District Governance (3 crs.)

Provides an initial exploration and exposure to leadership roles at the district setting and should be taken as part of a candidate's Tier 1 cluster of courses at beginning of program of study. Candidates expected to log 180 hours of practical field experiences to include, but not limited to, shadowing school leaders, observing other educators, assuming responsibility for basic leadership activities as assigned by mentor and conducting a case study on leadership concepts. Candidate will participate in three leadership seminars which focus on leadership foundations and best practices as articulated by current leaders in the field and a basic action research activity. Candidate will also begin to explore the role of the superintendent as an agent of change and/or reform. Projects and activities from Practicum I may carry over into Practicum II.

ELP622 The Superintendent as a School and Community Leader (3 crs.)

Viewing the school as a dynamic cultural entity interacting with external supra-systems, the school's interdependency on the community and its many publics is assessed. Importance of a sound public relations program for the school, and need to communicate and understand the community is stressed. Student designs a program to enhance effective lines of communication between the school and its publics.

ELP623 Negotiations and Personnel Strategic Decision Making (3 crs.)

Designed to prepare school leaders for leadership in the area of human resources in public schools. Includes a comprehensive review of the personnel function from the perspective of district central office administration and the theories and best practices in staff recruitment, selection, assignment, orientation, evaluation, professional development, reduction in force and other relevant current issues. Explores negotiations concepts, strategies and regulations, and other legal considerations within the commonwealth of Pennsylvania. Core field experiences form the basis of the exploration and development of critical skills necessary to be successful in the areas covered within the course to include the integration of institutional standards as they apply to all topics.

ELP624 Ethical and Legal Decision-making at the District Level (3 crs.)

Designed for preparing for executive leadership positions in public education. Students expected to have background in public school law and some experiences in leading public schools at either the building and/or district levels. Focuses on a review of key areas of school law with advanced study in the legal areas which are currently challenging school leaders. State laws affecting public education will be studied in detail along with issues dealing with student rights, the role of the school board, laws specific to the roles of school leaders, parent and community issues, emerging special education challenges and laws dealing with business and finance.

ELP625 The Impact of Facilities and Plant Management Decisions on School Effectiveness (3 crs.)

Designed for students in the Superintendent's Letter of Eligibility Program and for practicing educational administrators who want to update skills in educational facilities and plant management. Related educational program to facilities planning and development; provides an opportunity for students to interact with professionals from a variety of disciplines related to planning and development of educational facilities, relates local planning to Pennsylvania Department of Education requirements and regulations; and provides field-based work in contemporary facility planning, development, and maintenance.

ELP626 Optimizing Financial Resources to Support District Level Achievement (3 crs.)

Project-driven course focuses on the changing perception of finance in the American public schools (K-12). Assists in creating a platform of beliefs about school finance, budgeting, and the role of the superintendent by helping them understand key issues from both an historical perspective and current thinking on what it should become. Emphasis on approaches to developing, evaluating and articulating financial planning strategies to staff, the public, and the school board that inform decisions about student achievement. Also discusses the relationship between school boards and superintendents specific to budget development and strategies for enhancing that relationship.

ELP627 Practicum II Strategic Instructional Leadership (3 crs.)

Provides an advanced exploration and exposure to leadership roles at the district setting and should be taken as part of a candidate's Tier 3 cluster of courses at end of program of study. Candidates expected to log 180 hours of practical field experiences to include, but not limited to, shadowing school leaders, observing other educators, assuming responsibility for instructional leadership activities as assigned by mentor and conducting a case study on instructional

leadership concepts. In addition, the candidate will participate in three leadership seminars which will focus on instructional leadership foundations and best practices as articulated by current leaders in the field. Candidate will also begin to explore the role of superintendent as an agent of change and/or reform. Projects and activities from Practicum I may carry over into Practicum II.

English (ENG)**ENG420 Studies in Writing (3 crs.)**

Provides in-depth study of the history, theory, and/or teaching of writing. Content varies by instructor. Featured topics may include rhetorical theory and history, writing pedagogy, or politics and practices of literacy. Expect to produce at least 20 pages of writing in a combination of shorter and longer assignments, including an analytical paper.

ENG426 Teaching Adolescent Literature (3 crs.)

Acquaints secondary English pre-service teachers with award-winning literature and teaching resources to use with adolescents in grades 7-12. Includes examination of the psychological and developmental needs of the adolescent; how to accommodate variety of student abilities and interests within a classroom; and how to incorporate adolescent literature in the secondary English curriculum. Representative authors include Blume, Hinton, Cormier, Lowry, and Paterson. Expect to write at least one analytical paper and develop materials for instructional purposes. *Prerequisite: EDU290.*

ENG427 Advanced Poetry Workshop (3 crs.)

Provides opportunity to develop ability to write original, publishable poetry with special emphasis on the development of a significant body of work. Taught as a workshop; individual tutorials arranged for student writers. In-depth readings and lectures cover recent developments, both theoretical and practical, in the poetry field. Each student should expect to write and revise at least 15 pages of poetry, and to produce a final portfolio of course work. *Prerequisite: ENG 307 or permission of instructor.*

ENG428 Advanced Fiction Workshop (3 crs.)

Provides opportunity to develop ability to write original, publishable fiction with special emphasis on the development of a significant body of work. Taught as a workshop; individual tutorials arranged for student writers. In-depth readings and lectures cover recent developments, both theoretical and practical, in prose genres including short fiction and the novel. Each student should expect to write and revise at least two or more short works of fiction, or chapters of a novel, and to produce a final portfolio. *Prerequisite: ENG 308 or permission of instructor.*

ENG438 Technical Professional Writing II (3 crs.)

Incorporate theories of technical and professional communication into writing practice. Students use argumentative rhetorical strategies, analyze audience needs, and consider ethical implications as they prepare advanced projects in technical writing. Emphasizes critical evaluation of information, project design and implementation, and organizational skills for collaborative projects. Students complete advanced assignments, such as writing a grant proposal, creating on-line user documentation, preparing a research report in a hyperlinked format, and making a persuasive presentation using computer-generated graphics. Serves as preparation for an internship in technical or professional writing; and a significant asset for students whose employment goals require strong writing skills and the ability to lead and to coordinate projects. *Prerequisite: ENG238.*

ENG464 Seminar in a Major Author (3 crs.)

In-depth analysis of representative works by a single author with relevant secondary sources associated with the author. Particular author varies according to the instructor. Expect to write at least one lengthy documented paper dealing with works covered in the class. *Prerequisite: ENG107 or permission of the department.*

ENG465 Seminar in Creative Nonfiction (3 crs.)

Examines prose that claims to be a factual representation of the truth in a narrative form. Genres that may be studied include autobiography, memoir, biography, history, documentary writing, essay, travel writing, nature writing, and writing about culture. Works by more than one author will be read; may emphasize determining characteristics of the genre rather than the chronological period in which it appears. Expect to write at least one lengthy analytic paper. *Prerequisite: ENG107 or permission of the department.*

ENG466 Seminar in Literary Theory (3 crs.)

In-depth study of one or more theoretical perspectives in literary criticism. Particular theories and authors studied varies according to the instructor. May focus on a theoretical movement (e.g., deconstruction, reader-response) or the works of one or more important theorists (e.g., Fredric Jameson, Stanley Fish). May also be organized around a particular set of issues or concerns relevant to theories of literary criticism (e.g., race in postmodern theory, the meaning of the author in literary theory). Expect to write at least one lengthy analytic paper. *Prerequisite: ENG107 or permission of the department.*

ENG467 Seminar in Drama (3 crs.)

Examines drama's fundamental components (plot, character, and what Aristotle calls thought [every effect produced in speech]) within the spatial context of a stage. Concerned, in particular, with performance of drama. Attendance at relevant area stage performances and viewing films and video tapes augment textual study. Requires thoughtful critical reading and critical writing beyond requirements of lower level courses. Both activities done in terms of a non-chronological cluster of significant dramatists, e.g., Marlowe, Ibsen, O'Neill, which may vary from instructor to instructor. Enables in-depth understanding of the components of drama and their various utilizations regardless of a dramatist's time period or individual style. Expect to write at least one lengthy analytic paper dealing with one or more of the components in a work or works read for the seminar. *Prerequisite: ENG107 or permission of the department.*

ENG468 Seminar in Fiction (3 crs.)

Examines fiction's fundamental components—plot, character, and narrative point-of-view. Requires thoughtful critical reading and critical writing beyond requirements of lower level courses. Both activities done in terms of non-chronological cluster of significant fiction writers, e.g., Sterne, Bronte, Faulkner, which may vary by instructor. Enables understanding of in-depth the components of fiction and their various utilizations, regardless of a fiction writer's time period or individual style. Expect to write at least one lengthy analytic paper dealing with one or more of the components in a work or works read for the seminar. *Prerequisite: ENG107 or permission of the department.*

ENG469 Seminar in Poetry (3 crs.)

Examines poetry's fundamental components — image, sound, and the interplay of concepts. Requires thoughtful critical reading and critical writing beyond requirements of lower level courses. Both activities done in terms of a non-chronological cluster of significant poets, e.g., Milton, Tennyson, Moore, which may vary by instructor. Enables understanding of in-depth the components and their various utilizations, regardless of a poet's time period or individual style. Expect to write at least one lengthy analytic paper dealing with one or more of the components in a work or works read for the seminar. *Prerequisite: ENG107 or permission of the department.*

ENG490 Selected Topics in English (1-3 crs.)

Opportunity to offer courses in areas of departmental interest not covered by regular course offerings.

ENG505 Seminar in Poetry (3 crs.)

Provides in-service teachers and certification students with advanced study of poetry and poetics. Course may focus on a movement or school of thought (e.g. the Romantics, the Harlem Renaissance), an

historical period, the poetry of a defined social group (e.g. Hispanic American poetry, African women's poetry), and/or a thematic concern. Helps teachers understand current critical and theoretical approaches to poetry. Specific topic will vary according to instructor.

ENG506 Seminar in Fiction (3 crs.)

Provides in-service teachers and certification students with advanced study of fiction. Course may focus on an historical period (e.g. 19th-century novel, short fiction of the 1940s), a movement or school of thought (e.g. modern novel, postmodern narratives), the fiction of a socially defined group (African-American novels, Native-American narrative), and/or a thematic concern. Helps teachers understand current critical and theoretical approaches to fiction. Specific topic will vary according to instructor.

ENG507 Seminar in Drama/Film (3 crs.)

Provides in-service teachers and certification students with advanced study of drama and/or film. Course may focus on an historical period (e.g. Elizabethan tragedy, modernist drama), a movement or school of thought (e.g. French New Wave cinema), the drama and/or films of a socially defined group (African-American cinema, gay/lesbian theater), a particular genre (e.g. tragedy, film noir), and/or a thematic concern. Helps teachers understand current critical and theoretical approaches to drama and/or film. Specific topic will vary according to instructor.

ENG511 Seminar in Cultural Studies (3 crs.)

Examines textual media (literature, film, etc.) in relation to other cultural practices and to social and historical structures. Might involve, for example, studies of film noir in relation to the postwar anticommunist hysteria; race in Renaissance literature and the rise of colonialist economy; gay "camp" style, postmodern poetics, and performance art. Introduces students to important theories and methodologies of cultural study and relates them to study of literary texts. One or more critical papers required. Specific content varies according to instructor.

ENG512 Seminar in Composition and Rhetoric (3 crs.)

Introduces the field of composition and rhetoric, the area of English studies specifically concerned with methods, implications, and challenges of teaching writing. Depending on the instructor and the interests of the students, course may focus more or less on the following areas: historical contexts in classical rhetoric, such as the revival of Sophistic rhetoric; current theories as applied in composition studies, such as social constructionism; major movements in composition pedagogy, such as collaborative writing or computers and composition. One or more researched essays and class presentations required.

ENG515 Seminar in American Literature (3 crs.)

Provides in-service teachers and certification students with advanced study of American literature. Course may focus on an historical period (e.g. the American Renaissance, Realism, Naturalism), a movement or school of thought (e.g. American Transcendentalism, the Imagist poets), a particular genre (e.g. the novel, American drama), a socially defined group (e.g. slave narratives, Latino/a novels), and/or a thematic concern. Helps teachers understand current critical and theoretical approaches to fiction. Specific topic will vary according to instructor.

ENG516 Seminar in British Literature (3 crs.)

Provides in-service teachers and certification students with advanced study of British literature. Course may focus on an historical period (e.g. the Renaissance, the Victorian Age), a movement or school of thought (e.g. *fin de siècle* aestheticism, the Bloomsbury group), a particular genre (e.g. the lyric, the novel), a socially defined group (e.g. working class fiction, black British poetry), and/or a thematic concern. Helps teachers understand current critical and theoretical approaches to fiction. Specific topic will vary according to instructor.

ENG517 Seminar in World Literature (3 crs.)

Provides in-service teachers and certification students with advanced study of literature in a global context. Course may focus on an specific national and/or regional literature (e.g. Indian fiction, Central American poetry), a transnational movement (e.g. postcolonialism, surrealism), a genre in global contexts (e.g. drama in Europe, poetry of the black Atlantic), a historical period (e.g. European literature of the *fin de siècle*, 20th century African novel), and/or a thematic concern.

ENG518 Seminar in Multicultural Literature (3 crs.)

Provides in-service teachers and certification students with advanced study of American literature in a multicultural context. At least two historically under-represented social groups will be represented by the authors studied. Course may focus on a genre (e.g. minority American poetry), a historical period (e.g. minority American literature in the postbellum, Native American and Chicano poetry of the Vietnam era), and/or a thematic concern. Helps teachers understand current critical and theoretical approaches to the cultural diversity of American literature. Specific topic will vary according to instructor.

ENG525 Seminar in Teaching English/language Arts (3 crs.)

Provides in-service teachers and certification students with current research and methodology for teaching the English/language arts. Course gives students the opportunity to explore topics such as the student-centered literature class, theories of the reader-response criticism as they apply to the classroom, incarnations of the writing process, reading/writing workshop, trends in assessment, technology in the English classroom, and other subjects as appropriate.

ENG530 Seminar in Creative Writing (3 crs.)

For graduate students who wish to develop their skills in writing original fiction, poetry, or drama, taught on a workshop basis. Students present in-progress portions of their work in class and take part in critical discussion based on the presentations of others. Whereas the emphasis is upon the production of substantial work in any one of these genres, the instructor makes directed reading assignments. Fiction writers should expect to complete at least two short stories or a novel chapter; poets should expect to complete a portfolio of at least 12 pages of poetry; playwrights should expect to complete two one-act plays or a full-length (three or more acts) play.

Finance (FIN)

FIN405 Real Estate Appraisal and Investment Analysis (3 crs.)

Basic course in real estate appraisal stressing techniques of appraisal, investment analysis, and the valuation theory underlying these methodologies. Practical application in appraising part of course. *Prerequisite: FIN311 or permission of department chair.*

FIN414 Bank Management (3 crs.)

Deals with the regulatory and managerial environment within which the bank manager operates. Concerned with the regulatory framework which controls the balance sheet policies of a bank as well as branching and merger activity. Other selected advanced topics of bank management, such as the management of deposits and capital adequacy, the bank's balance sheet, assets, and liquidity, are addressed. *Prerequisite: FIN314 or permission of department chair.*

FIN421 Personal Financial Planning (3 crs.)

Addresses various aspects of personal financial planning. Includes the financial planning process, personal financial statements, cash flow and debt management, analysis of insurance needs, investment planning, as well as estate, retirement, and income tax planning. Designed to apply and integrate the above knowledge into a cohesive personal financial plan. *Prerequisites: FIN312 and FIN320.*

FIN425 Global Financial Management (3 crs.)

Studies the international environment, the foreign exchange risk management, the investment decision, the financing decision, and management of ongoing business operations in global settings. Emphasis on the analysis and evaluation of the investment decision, financial decision, and operational and financial risk in foreign countries. *Prerequisites: FIN311 and SCM200 or permission of department chair.*

FIN434,435 Investment Management Program (1-3 crs.)

Students manage a real money security portfolio to obtain practical investing experience. Students establish investment philosophy, investment objectives and policies, identify investment strategies, and present recommendations for buying and selling investment securities toward the goal of constructing and managing a real portfolio. *Prerequisites: FIN333 and departmental approval.*

FIN442 Derivatives Markets (3 crs.)

Broad overview of different types of financial derivatives (forwards, futures, options, options on futures, and swaps), while focusing on the principles that determine market prices. To integrate the understanding of these instruments, the discussion emphasizes the relationships among futures, options, and swaps. Emphasizes the application of financial derivatives as risk management tools, not as instruments of speculation. *Prerequisite: FIN312 or permission of department chair.*

FIN490 Selected Topics in Finance (1-3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

French (FRN)

FRN400 Seminar: Advanced Studies in French Language and Literature (3 crs.)

Detailed examination of specific aspects of French literature authors, genres, literary and philosophic schools, or linguistic problems such as translation and dialects. Seminar may be taken more than once provided a specific topic is not repeated. *Prerequisite: permission of instructor.*

FRN410 Theory and Practice of Translation (3 crs.)

Introduces various types and tools of oral and written translation and provides extensive practice in French-to-English translating in professional contexts (business, education, criminal justice, medicine, computer science, international relations and political science) and in translating works of literature. Emphasis will be given to discussion of translation problems, recognition of appropriate solutions, and the use of specific translation strategies in French-to-English translation. *Prerequisites: FRN309 and FRN316.*

FRN490 Selected Topics (3 crs.)**FRN510 French Theater (3 crs.)**

Intends to help in understanding the complexity of the theater in the French speaking throughout the centuries. In a multidisciplinary approach, studies the importance of this literary form, its stature, and the social influences that have impacted it. Students analyze the literary importance of the texts and their political, historical, and sociological impact on the respective cultures that produced them. Films will be included. Taught in French.

FRN515 French Poetry (3 crs.)

Intends to help in understanding the complexity of poetry in the French speaking throughout the centuries. In a multidisciplinary approach, studies the importance of this literary form, its stature, and the social influences that have impacted it. Students analyze the literary importance of the texts and their political, historical, and sociological impact on the respective cultures that produced them. Films will be included. Taught in French.

FRN520 French Fiction (3 crs.)

Intends to help in understanding the complexity of fiction in French speaking throughout the centuries. In a multidisciplinary approach, studies the importance of this literary form, its stature, and the social influences that have impacted it. Students analyze the literary importance of the texts and their political, historical, and sociological impact on the respective cultures that produced them. Films will be included. Taught in French.

FRN525 French Speaking Countries (3 crs.)

Intends to expose students to the complexity of the cultures in French-speaking countries throughout the centuries through a multidisciplinary approach. Studies the importance of different cultural issues from a political, historical and sociological standpoint, exploring the impact on the diverse cultures of the French-speaking world. Analyzes different texts and films to illustrate these issues. Taught in French.

FRN530 French Linguistics (3 crs.)

Deals with the grammatical structure of the modern French languages and addresses issues relating to phonetics, syntax, morphology, and semantics, all part of what is commonly referred to as grammar. Lectures grounded in practicality and consider the needs of teachers. Prescriptive norms and actual use of the language in its dialectal variations, including those found in Canada, Africa, and the Middle East will be studied. Practicality further emphasized with sociolinguistic considerations that will enhance understanding of the language.

FRN535 History of French Language (3 crs.)

Seminar course lets students travel both in time and in space, while considering the evolution of the French language. Starting with Latin, changes systematically studied and analyzed, focusing on the nascent dialectal varieties, their importance, the impact of substrate languages and of others that have influenced what is known as French (Greek, Italian, and Arabic among many others). While the language is in part stabilized in Metropolitan France, no thanks to the Académie whose influence will be debated, French has gone through further changes on the American and African continents. French of Quebec and that of several countries in north and sub-Saharan Africa also explored. Several documentaries complement the seminar.

Geography (GEO)

GEO402 Medical Geography (3 crs.)

Introduces student to a geographical approach in the analysis of problems regarding environmental health. Dynamic interaction between the total person and the total environment (physical, biological, cultural, economic) lie at the core of geography, a discipline that integrates natural and social sciences. Consideration of such interactions is essential for an understanding of the changes that occur in the distribution of health and disease, when, for instance the environment is altered, or human lifestyles undergo substantial modification.

GEO404 Groundwater and Hydrogeology (3 crs.)

Examines the fundamental concepts of groundwater and hydrogeology in the context of real-world applications on the foundations of theory. Emphasis on the principles of groundwater flow, well installation, field data collection, and the analysis of physical and water chemistry as they relate to professional groundwater investigations. Grades based on exams and application-oriented assignments (problem sets). Required field trip(s) supplement classroom material (field trip dates and times will be determined during class). *One or more of the following courses are suggested prior to enrolling in GEO404: ESS110 or ESS210, and GEO226 or permission of instructor.*

GEO405 Environmental Conservation and Management in PA (3 crs.)

Examines the management of environmental and natural resource issues. Legislation, policies, programs, and strategies that are developed at the local, state, and federal levels of government are discussed as they apply to these issues. Emphasis on current environmental and natural resource issues in Pennsylvania. Topics considered will include the environment as a public policy issue, waste management

and cleanup programs, energy, air and water pollution, and the use of public lands. Through lectures, discussion, readings, writing assignments, and case study analysis, the student will be introduced to a range of environmental and natural resource issues.

GEO415 Regional Geographic Studies (3 crs.)

Opportunity to study the physical and human landscapes within a particular region of the world not covered by regular courses. Departmental faculty bring their regional expertise into the classroom and provide students with a focused examination of the region with respect to current political, social, economic, physical, and environmental issues. Faculty highlight their own work in the region and place their research within the broader regional context.

GEO420 GIS III: Advanced Geographic Information Systems (3 crs.)

Examines advanced topics in GIS analysis such as spatial data uncertainty, error propagation, spatial data display, transformations of geographic phenomena, and visualization. Skills focus on advanced spatial analysis, terrain modeling, georectification of data, and network analysis. Students design and implement an independent GIS project during course. *Prerequisites: GEO202, GEO363.*

GEO425 Image Processing (3 crs.)

Computer processing of remotely-sensed imagery is explored and laboratory exercises enhance understanding of image processing. Intermediate and advanced processing techniques performed on imagery from local and non-local areas. Techniques include spatial modeling, multispectral classification, and learning new techniques in processing satellite-borne imagery and other data. *Successful completion of GEO339 is suggested.*

GEO440 Field Techniques (3 crs.)

Studies geoenvironmental aspects of the local landscape by direct field observation. Various procedures and techniques are utilized to collect data concerning landforms, geology, soil, streams, air quality, population, transportation, housing characteristics and land use. Instruments, maps, air photographs, and statistics used to aid in the research, analysis, and evaluation of the field problem.

GEO441 Quantitative Methods (3 crs.)

Broad-based education in the geographical sciences requires a proficiency in applying statistical techniques to environmental problems. Provides a comprehensive and empathetic approach to statistical problem solving using practical geographic examples.

GEO444 Environmental Land-Use Planning (3 crs.)

Studies the spatial pattern of land-use development in rural and urban areas and interaction between urbanization and environment. Examines the physical and cultural requirements of environmental land-use planning including the study of the land-use classification, planning and zoning procedures, economic activity and the city as an ecosystem. City planning techniques, land-use mapping and field study of local region are utilized.

GEO446 Water Resources Management (3 crs.)

Roles of water resources management policies and institutions are examined within central theme of unified river basin management. Stresses interrelationships among watershed planning; relevant legislation; agency authority and coordination; and the geography of watershed management. North American case studies used to illustrate multiple use issues, including aquatic ecology, wetlands, floodplain management, recreation, water supply, hydropower, industry, and commercial shipping. *Prerequisite: GEO 226*

GEO450 Geography-Geology Field Studies (1-3 cr.)

One-week to 10-day regional field study observing and analyzing the physical and cultural landscape. Emphasis placed upon the physical and historical geology and geography of a prescribed route including several states. *Prerequisites: ESS212, GEO103 or permission of the instructor.*

GEO490 Selected Topics (1-3 crs.)

GE0503 Fundamentals of Geoenvironmental Research (3 crs.)

Builds student skills common to developing, implementing, and disseminating research projects in the major sub-disciplines of geoenvironmental studies. Generates opportunities to develop critical reading, writing, and presentation skills. Students will develop a literature review and a research proposal, as would be appropriate for either an independent research project or a master's thesis. Also develops fundamental skills for preparing grant proposals, professional reports, and oral and graphic presentations. Restricted to Geoenvironmental majors.

GE0514 Urban Environment (3 crs.)

Examines the impact of information technologies (IT) on the arrangement of human activities. The new technologies in information should make it possible to share information on a global scale. Information on problems ranging from hunger, employment opportunities, environmental degradation, traffic congestion, housing, and many other situations can be shared in a very short span of time over vast areas. Explores the problems and prospects for using information technology to communicate with people in similar or very different cultural and physical environments to guide the growth and development of human activities.

GE0517 Applied Geographic Information Systems (GIS) (3 crs.)

Reviews advanced geographic information systems (GIS) applications and the use of geographic information management technology in environmental analysis. Spatial mapping and data applications will be related to renewable resource management, transportation and logistics, infrastructure management, natural resources and land use planning, public health and safety, environmental hazards, mineral exploration, environmental assessment and monitoring, map and database analysis and research and education. Emphasis is on how GIS can assist in answering questions, solving problems, and analyzing spatial data. State-of-the-art GIS software used to show applications of geographic information technology for geoenvironmental and natural resource management projects.

GE0522 Geoenvironmental Hydrology (3 crs.)

Focuses on components of the hydrologic cycle including humidity, precipitation, interception, infiltration, soil moisture, evaporation, ground water, and stream flow. Particular emphasis is placed on using models to analyze these hydrological components and address practical hydrological issues such as storm water management, erosion, water quality, and stream and wetland restoration. Local water resources and watersheds are used as the basis for projects and field reports. Many projects will focus on human alterations to the hydrological system.

GE0524 The Geologic Environment (3 crs.)

Concerned with major concepts of physical and applied geology and their relationship to human activity. Analysis of minerals and rocks, earth structures, global tectonics, and surficial processes examined in a lecture, laboratory, and field investigation format.

GE0528 Geography of Economic and Environmental Systems (3 crs.)

Interpretative survey of the effects manufacturing and economic activities have on land-use development and the environment. Techniques of economic-industrial analysis, mapping procedures, environmental planning policies, and field study of the local region are utilized.

GE0530 Mapping Sciences (3 crs.)

Advanced methods in computer-assisted mapping and map analysis (geographic information systems or GIS). Emphasis placed upon techniques of establishing, managing spatial (geographic) data bases, cartographic modeling and analysis, and digital map composition using state-of-the-art GIS software. *One hour lecture, three hours computer laboratory per week.*

GE0531 Geomorphology (3 crs.)

Geomorphology is the systematic description, analysis, and interpretation of landscapes and the processes that change them. Emphasizes

both the qualitative and quantitative aspects of landscape change and has three principal objectives: 1) to provide a solid grounding in the basic concepts of process and Quaternary geomorphology, 2) to apply these concepts to the central Appalachian Highlands region, and 3) to examine these relationships in the field. Consists of in-class lecture, discussion, laboratory assignments, outside readings, a written paper and presentation, a local field trip, and a two-day field trip to Maryland and Virginia. *Prerequisite: introductory geology course or equivalent.*

GE0532 Disease and the Environment (3 crs.)

Seminar in geoenvironmental health hazards such as solid waste, air, and water pollution. Emphasis on public health problems these hazards pose, the application of geographic methods, and tools of analysis. Means available to cope with geoenvironmental hazards and associated policy debates are examined. Lecture information limited. Students expected to participate actively in every seminar meeting.

GE0533 Science of Land Use Change (3 crs.)

Land use and land cover change can have dramatic social and ecological consequences. This seminar course will focus on understanding and recognizing drivers of land use and land cover change and on recognizing linkages between land use and land cover change and other ecosystem processes, such as hydrologic processes and habitat fragmentation. The course will also focus on methods for analyzing land use and land cover changes, landscape patterns, and will incorporate geographic information systems and modeling. *Prerequisite: introductory course in geographic information systems.*

GE0536 Problems of the Atmospheric Environment (3 crs.)

Examines and analyzes various weather and climate topics, both natural and human-influenced. Topics include brief review of atmospheric basics, air pollution, ozone, ENSO, climate change, climate modeling, and greenhouse warming. Potential solutions to problems explored. Presented in seminar format and includes journal paper discussion and evaluation, writing opinion papers on controversial atmospheric issues, group projects, class presentations, and a term paper. Interrelationships among the various atmospheric problems are emphasized.

GE0542 Land-Use Regulations (3 crs.)

Provides knowledge of the components of community level land use regulations. The following community level system components are examined: comprehensive plan, zoning ordinance, subdivision regulations, taxation, other minor land acquisition techniques.

GE0546 Geoenvironmental Research I (3 crs.)

Research course to be developed with member of the geography-earth science department.

GE0548 Geoenvironmental Research II (3 crs.)

Research course to be developed with member of the geography-earth science department.

GE0594 Selected Topics (1-3 crs.)**GE0599 Independent Study (3 crs.)****GE0609 Internship I (3 crs.)**

Provides opportunity to practice geoenvironmental theory and concepts as an observer and participant in the process. Placement on a limited basis with consulting firms and state and local governments enhances the student's preparation in the field.

GE0610 Internship II (3 crs.)

Provides opportunity to practice geoenvironmental theory and concepts as an observer and participant in the process. Placement on a limited basis with consulting firms and state and local governments enhances the student's preparation in the field.

GE0612 Thesis I (3 crs.)**GE0613 Thesis II (3 crs.)**

Gerontology (GRN)

GRN480 Valuing Diversity in Later Life (3 crs.)

Examines the unique experiences of aging among various racial, ethnic, and cultural groups, with an emphasis on assessing needs and identifying strengths.

GRN481 Reflecting on the Impact of Gender in Later Life (3 crs.)

Explores the unique experiences of aging women and men with an emphasis on overcoming discrimination and stereotypes to promote improved quality of life.

GRN482 Using Spirituality to Promote Optimal Aging (3 crs.)

Examines the powerful influence of religion and spirituality in the lives of elders, including ways of working with beliefs and religious systems to improve service delivery.

GRN483 Using Applied Statistics in Gerontology Professions (3 crs.)

Provides necessary skills to apply, understand, and critically evaluate the unique outcomes of research designs involving older adults.

GRN484 Evaluating Gerontology Programs, Services, and Products (3 crs.)

Engages students in applied research including the evaluation of existing aging-related social service programs and for-profit services and products aimed at the older adult market, with an emphasis on the use of qualitative methods.

GRN491 Advanced Selected Topics in Gerontology (1-3 crs.)

Opportunity to offer advanced courses in areas of program minor not covered by the regular courses.

GRN510 Foundations of Applied Gerontology I: The Social Context of Aging (3 crs.)

Provides an in-depth overview of the field of aging for diverse career professionals with an emphasis on understanding issues important to elders today such as economics, social relationships, and the importance of advocacy.

GRN511 Foundations of Applied Gerontology II: Cognitive Aging, Mental Health, and Wellness (3 crs.)

Examines individual differences in later life including personality, memory and cognition, and the social psychology of aging, with an emphasis on geriatric assessment and application of findings that promote positive aging.

GRN512 Foundations of Applied Gerontology III: Biological Aging, Physical Health, and Wellness (3 crs.)

Examines the biological and physiological dimensions of health and wellness of older adults with an emphasis on distinguishing normal (i.e., healthy) aging versus pathological (i.e., disease) processes in later life and on applying interventions to achieve optimal fitness in later life.

GRN520 Thinking Critically for Gerontology Professionals (3 crs.)

Provides necessary skills to understand and critically evaluate aging research, with an emphasis on applying results to real-world issues.

GRN610 Advancing Social & Public Policy in Gerontology (3 crs.)

Examines the impact of aging and health care public policy (e.g., Medicare, Social Security) on the social service delivery system, with an emphasis on improving the social, economic, and physical environments of elders.

GRN621 Creating Successful Models of Aging (3 crs.)

Examines model theories, programs, and services for seniors, with an emphasis on revision and adaptation for career-specific use.

GRN640 Attracting & Keeping Older Clientele (3 crs.)

Focuses on issues important to the business professional including the economics of aging, social policy, marketing techniques, and applied market research design.

GRN641 Managing an Older Workforce (3 crs.)

Focuses on issues and skills important to the effective management of an aging workforce including hiring, performance evaluation, training, retraining, and leadership.

GRN650 Applied Projects & Research in Aging (3 crs.)

Students choose one of two options depending on career goals: 1) applied internship placement that focuses on working with and/or advocating for older adults; or 2) complete a formal thesis with a gerontology theme with the goal of preparing for advanced graduate level work.

GRN651 Integrating Gerontology into Professional Careers (3 crs.)

Capstone course provides an in-depth analysis of serving older clients/consumers with an opportunity to integrate previously learned material in an individually tailored applied project.

GRN690 Learning Something New: Advanced Selected Topics in Aging (3 crs.)

Opportunity to study concepts and applications in the area of diverse aging individuals not covered by regular graduate coursework (to be taught by interdisciplinary faculty over summer terms).

History (HIS)

HIS402 Revolutionary America (3 crs.)

Explores the fundamental changes in American life during the 18th century and their culmination in the American Revolution. Analyzes those themes within the conceptual framework of the modernization of traditional societies and in the context of broader Western and American developments.

HIS407 Women in Comparative Perspective (3 crs.)

Topical exploration of female experiences in selected global cultures. How different societies have constructed gender (or defined the social meaning of being a woman) over time explored in a comparative perspective. Intellectual discourses of religion, education, and politics structure cultural comparisons of women's work, their position within the family, attitudes toward sexuality, civil rights, and access to public power. Through readings, discussions, films, and occasional lectures examines the historical development of modern gender conventions in various world regions and of controversies about the human rights of women.

HIS410 The Islamic World (3 crs.)

Explores the many contours of the Islamic World from 600 to 1500 CE, focusing on Islam as a religion and as an organizing principle of many diverse societies. Examines how politics, warfare, society, and cultures developed in the Islamic world. Includes pre-Islamic Arabia, the rise of Islam, Arab expansion and adaptation, nomadic-urban encounters, and development of socio-political institutions, religious sects, and cultural-scientific achievements.

HIS413 Pennsylvania History (3 crs.)

Deals with development of Pennsylvania from the eve of European settlement to the present. Attention given to political, economic, and social trends and institutions from the 17th through the 20th centuries. Pennsylvania's role in national and international history also studied.

HIS423 Issues in 20th-Century Europe (3 crs.)

Chronological and topical study of political, economic, social, and intellectual trends of our era. Modern wars, the struggle between authoritarianism and democracy, the East-West split, and the European economic community are major themes.

HIS428 Issues in the Gilded Age and Progressive Era (3 crs.)

Covers political, economic, social, and intellectual aspects of the Progressive Movement, tracing its origins in the 19th century and showing how progressivism was a part of the background of the New Deal. Special attention given to the all-important transition of the concept of liberalism from laissez-faire individualism to state regulation. Emphasis placed upon the differing interpretations of the Progressive Movement which have been developed by various historians.

HIS430 U.S. Cultural History (3 crs.)

Focuses upon significant cultural developments in American history, and upon the importance of culture to major trends and events in the U.S. past. Addresses cultural theory, definitions of culture, multiculturalism in history, and the roles of culture and communication in the interpretation of history. Individual subjects covered each semester will include some combination of the following: mass media (including radio, television, print), folklore, religion, material culture, and performance culture.

HIS433 Oral History (3 crs.)

Introduces methods and uses of oral history. Students learn to analyze and use oral history sources, and will practice oral history protocols including the conduct of recorded interviews, the storage of oral history recordings, and the transcription of oral history interviews. Introduces alternative uses for oral history including audio and video documentary, and digital methods of exhibition. *Prerequisite: HIS203.*

HIS454 China and the Outside World (3 crs.)

Investigates China's relations with the outside world during its pre-modern history. Since China is somewhat geographically isolated from the rest of Eurasia, historians have tended to assume Chinese civilization is mostly the product of indigenous developments. The course challenges this assumption by looking at how China and people outside of its borders have influenced each other.

HIS490, 492, 493 Selected Topics (1-3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIS499 Historiography (3 crs.)

Traces development of historical consciousness from classical antiquity down through the use of scientific history in the late 19th century. Further analyzes the intellectual foundations, social purposes, and methods of contemporary, (i.e., 20th century) historical inquiry. *Prerequisite: nine credits in history or permission of instructor.*

HIS501 Introduction to Applied History (3 crs.)

Explores the practical application of historical skills and practices in a variety of settings (including business, government, and historical institutions such as museums, historic sites, archives, and historical societies), and the issues historians face when they preserve, interpret, and present the past to the general public. Through hands-on experience, students examine areas such as archive and manuscript curating, historical editing, oral history, material culture studies, museums, historic preservation, historical media production, and history on the World Wide Web. Special emphasis placed on the financial, legal, ethical, political, and interpretive issues faces by historians presenting the past to diverse audiences.

HIS502 Introduction to Archives (3 crs.)

Explores the history of archives and the historical roots of modern archival practices, and the rise of the archival profession in the United States. Examines the principles and best practices in archival collection development, accessioning, appraisal, arrangement, description, and reference, including consideration of the special issues posed by electronic records and audiovisual materials. Surveys the basic principles and techniques for the preservation and conservation of archival records, including paper documents, photographs, and electronic media. Students will investigate the different missions, audiences and approaches used by government, church, business, labor and educational archives.

HIS505 Advanced Topics in Public History (3 crs.)

Provides intensive examination of some of the specialized historical methods used by historians working for museums, historic sites, historical societies, government agencies, and other types of historical organizations. Emphasis may be on one or more of the following: oral history, local history, material culture studies, historical editing, historic preservation, or museum studies. Students gain hands-on experience by designing and executing significant public history projects and by conducting historical fieldwork.

HIS513 Seminar in U.S. Women's History (3 crs.)

Explores topics and themes pertinent to shaping the past experience of American women, including personal, property, and political rights; ideologies of gender; rural and urban work; education; class, race, and ethnicity; social policy; and sexuality. Readings and discussion in the seminar focus on both empirical and theoretical literature of the field.

HIS515 Seminar in 20th Century U.S. Social History (3 crs.)

Reviews United States history since 1945 through the topical approach. Problems such as internationalism, civil rights, extremism, and comparable topics are considered as they reflect the impact of the assumption of world leadership and responsibility on traditional American concepts, ideals, and values.

HIS516 Seminar in African American History (3 crs.)

Deals with the experience of blacks in America from colonial times to the present. Origins and developments of white attitudes toward black Americans and the origin and development of the attitude of blacks emphasized. Students examine topically and in-depth attitude development, slavery, segregation, the Civil Rights movement, and the contribution of black leaders to American life. *Prerequisites: HIS201 and HIS202 or permission of instructor.*

HIS519 Seminar in International Relations (3 crs.)

Treats United States diplomatic history from 1914 to the present. Considers interpretations of major diplomatic events such as American entry into World War I, World War II, the Cold War, the Korean War, and the Vietnam War, as well as peacemaking at Versailles, Yalta, and other negotiated settlements. Also develops dominant themes in United States diplomacy, including foreign economic interests, Caribbean intervention, isolationism, collective security, the nuclear arms race and disarmament.

HIS525 Seminar in U.S. Regional History (3 crs.)

Introduction into the major historiographical issues and research methods of regional and local U.S. history. Focuses attention on questions of regional identity and themes of the relationship between region and nation, and the relationship between region and world. Trains students in analyzing regional and local primary sources. Alternates emphasis between the American West and the American South.

HIS526 Seminar in the Civil War Era (3 crs.)

Considers new and old interpretations regarding this political watershed's coming and consequences (roughly 1830 to 1880), emphasizing social, cultural, and political perspectives.

HIS532 20th Century Europe (3 crs.)

Intensively studies critical themes in European history between 1914 and the present. Topics investigated include imperialism, domestic politics, culture and society, international relations, gender, the evolution of Russia and the USSR, as well as the legacies of World I and World War II.

HIS534 Seminar in Modern German History (3 crs.)

Analysis of critical issues in German history since 1871, with emphasis on the period since 1919. Particular emphasis given to collapse of the Weimer Republic and Hitler's dictatorship.

HIS535 Seminar in Medieval Studies (3 crs.)

Focuses upon the reading and interpretation of various writings of the Early Middle Ages as well as secondary accounts dealing with the age which have come to be recognized as standard works in the field. Selection of works affords a coverage of the economic, political, philosophical, religious, and literary aspects of the period.

HIS543 Environmental History (3 crs.)

Deals with the interaction between humans and the natural world in a global comparative perspective. Explores historiographical trends in the field of environmental history including the contentious meaning of such terms as "The Environment," "Nature," and "Wilderness," the tension between social and natural histories, and the role/s of colonialism, imperialism and nationalism in reshaping conceptions of the environment.

HIS558 Seminar in East Asia and the Modern World (3 crs.)

A comparative look at major themes in the histories of China and Japan from earliest times to the present. Premodern topics include prehistory, the development of state Confucianism, the spread of Buddhism, roles of scholars and warriors, the impact of Inner Asia, political decentralization, gender, and peasant society. Includes study of how traditional cultures have been transformed as a result of contact with the West since the 19th century.

HIS593 Selected Topics in History (1-3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

HIS594 Selected Topics (1-3 crs.)

HIS598 Independent Study (3 crs.)

HIS599 Readings in History (3-6 crs.)

Opportunity for independent readings in an area of special interest to the student of history, such as the major field of American, European, and non-Western history, including political, economic, social, intellectual and cultural developments. *Prerequisites: permission of the department and instructor.*

HIS600 Computerized Historical Research Methods (3 crs.)

Seminar in historical research techniques, analysis of source materials, and preparation of a research paper. Students expected to perform research and prepare and present a model seminar paper. Emphasizes the important role electronic resources have assumed in basic historical research methods. Should be scheduled as early as possible in the program.

HIS601 Research in Local and Regional History (3 crs.)

Intensive study and hands-on research of micro regions or localities defined by their natural geographic, economic, or cultural characteristics. Examines the theoretical and methodical issues of local and regional historical research and then has students apply those concerns in the intensive study of two or more localities. Students required to complete a research paper demonstrating mastery of the techniques of local and regional historical research.

HIS609 Internship I (3 crs.)

HIS610 Internship II (3 crs.)

HIS612 Thesis I (3 crs.)

HIS613 Thesis II (3 crs.)

Human Communication Studies (HCS)

HCS400 Senior Seminar (3 crs.)

Required capstone course for all HCS majors that emphasizes a summative experience in the advanced studies of selected areas of the field of human communication. Students expected to produce, from their own scholarly investigation, results that are potentially presentable at professional conferences and in scholarly publications. *Prerequisites: HSC360 and approval of the instructor.*

HCS410 Feminist Perspectives on Communication Theory and Research Methods (3 crs.)

Critical examination of traditional theories of human communication and research methods in terms of their invalid claims to universalism and their value implications which have perpetuated a world view that is masculine biased. Students develop an understanding of the interaction process, in different communication contexts, as well as the role of the researcher in assessing communicative encounters. Students deconstruct traditional perspectives on basis of the insights gained through diverse feminist perspectives and discover alternative approaches to communication studies.

Information Systems Studies (ISS)

ISS515 Information Systems Project Management (3 crs.)

Introduces the principles and practices necessary to be an effective information systems team member or project manager. Covers project scope, time, costs, quality, and human resource management techniques as applied to the kinds of project management problems and issues unique to the IS environment. Student will obtain hands-on experience using MS Project as well as other types of project management software. Specific course emphasis will focus on the techniques of project management, leadership, teamwork, and project risk management. Case work will be a major part of course.

ISS520 Programs, Data, and File Structures (3 crs.)

Advanced programming, data organization, and accessing design techniques.

ISS530 Modeling and Decision Systems (3 crs.)

Explores a wide range of analytical techniques that may be employed in business decision-making processes. Topical coverage includes simulation, project management, financial analysis, optimization, break-even analysis, and inventory management. While the theoretical foundations of these concepts are addressed, emphasis is on applications and solution techniques relevant to practical business situations. Utilization of current computer technology is an integral part of the course.

ISS540 Data Communications, Networks, and Distributed Data Processing (3 crs.)

Covers communications environments, communication system components, networks and control, common carrier services, design of communications networks, network management and distributed environment, local area data networks, future networks.

ISS550 Database Design (3 crs.)

The data environment, basic technical concepts and system resources for data, database concepts, use and management of databases.

ISS560 Introduction to E-Business (3 crs.)

Covers the Internet and electronic commerce concepts, related business operations and management, technology utilization, and industry-specific applications. Introduces the current business, management, technology, and legal issues in e-business. Topics span a wide range and include web strategies, e-marketing, e-human resources, e-finances, B2B systems, e-legal issues, website design, technology needs, and database-driven websites.

ISS570 Information Analysis (3 crs.)

Designed to provide the necessary skills to accomplish the systems analysis and logical design of information systems. Includes the role of a modern systems analyst as a problem solver in the business organization. Course will progress through the system development life cycle (SDLC) and include project planning, project management, and feasibility assessment. Different methodologies, models, tools and techniques used to analyze and design and build systems will be introduced.

ISS580 Web Programming (3 crs.)

Includes, but not limited to, the following topics: introduction to the Internet and the World Wide Web, programming, using Microsoft Express and Visual InterDev, JavaScript programming, Dynamic HTML programming, ActiveX controls, electronic commerce and security, web servers, active server pages, CGI and PERL, and XML. A major portion of course will be to build a website based upon an e-commerce business.

ISS590 Information Systems Development I (3 crs.)

First in a two semester sequence where students apply the knowledge they have gained in MSIS program. While studying various software development paradigms, the students practice those techniques by performing requirements analysis and design of a state-of-the-art information systems project to solve a given business problem. Course stresses team management, project planning, and risk assessment in addition to technical skills.

ISS600 Information Systems Development II (3 crs.)

Second in a two semester sequence where students apply the knowledge they have gained in MSIS program. The projects started in ISS 590 are implemented and tested. Technical knowledge and experience with configuration management tools, inspection and testing strategies is paired with project management and risk analysis techniques.

Management (MGT)**MGT431 Corporate Entrepreneurship (3 crs.)**

Examines the need for entrepreneurship in a corporate setting. Companies must be faster, more flexible, more aggressive and more innovative in order to maintain their competitive edge. In other words, they must be more entrepreneurial. Topics include the need for speed, adaptability, and innovation in order to maintain a competitive edge. Covers many entrepreneurial issues and controversies, and students will be challenged to develop and defend their positions regarding these matters. This is an application oriented course. Students will apply concepts, tools, and frameworks in a series of real world cases and contexts. *Prerequisites: ACC201, FIN311, and MGT305.*

MGT432 Entrepreneurship (3 crs.)

Focuses on the concepts, skills, and know-how, information, attitudes and alternatives relevant for start-up and early-stage entrepreneurs and entrepreneurial managers. With two fundamental objectives: To teach the use of entrepreneurial perspective in order to make better decisions and increase the odds of success; and teach effective entrepreneurial and general management practice from the perspectives of the founder and the vital stakeholders who can make a substantial difference in the ultimate success or failure of the entrepreneurial process. Central focus is the critical role of opportunity creation and recognition, as the principal success factor in new enterprise formation and building. Especially relevant for aspiring entrepreneurs bent on launching and growing a business. *Prerequisites: MGT 337 and MGT 433.*

MGT433 Small Business Management (3 crs.)

Studies the concerns and trends unique to small businesses. Emphasis on the profitable operation of an ongoing small business. Designed for students who are primarily interested in owning and managing the small business enterprise. Case analysis and analysis of actual small business operations will be used. Consideration will be given regarding how to market and produce new and existing products and how to determine pricing and demand elasticities. Basic objective to enhance the students' probability of successfully running and growing a small business by mixing a variety of instructional exercises including the textbook, Internet exercises, a simulation, and a promotional newsletter or brochure. *Prerequisites: ACC201, FIN311, MGT305, MKT305.*

MGT447 Business and Society (3 crs.)

Examines role of business in a social system including interrelationships with government, the community, employees, and other major publics. A major focus is social responsibility of business. Consideration given to such areas as international business, business ethics, pollution, and impact of governmental regulations. *Prerequisite: departmental permission.*

MGT450 Negotiation (3 crs.)

Provides students with skills needed to approach negotiation and bargaining situations with confidence, including frameworks for the analysis conflict and its origins, knowledge about one's own tendencies in negotiation, and a chance to experiment with negotiating techniques in a variety of contexts. Topics include: integrative and distributive negotiations, individual differences in bargaining styles, coalitions, team negotiations, negotiating through agents, and ethical issues in negotiation. Course content is delivered through readings, cases, and lecture, however, considerable emphasis is placed on in- and outside class negotiation simulations and subsequent class discussion. *Prerequisites: MKT305, FIN311, MGT305.*

MGT470 International Management (3 crs.)

Study of the unique problems associated with the management of firms operating in an international environment. Focus on the strategic and comparative issues. *Prerequisite: MGT370 or departmental permission.*

MGT490 Selected Topics (1-3 crs.)**MGT497 Strategic Management (3 crs.)**

Examines strategic decision making under conditions of dynamic uncertainty, with focus on integrating the domains of the various majors in the college to facilitate understanding of each employee's and each discipline's role in the total organization. Importance of achieving a fit between the internal and external environment for organizational survival and success is a central issue. Consideration given to influence of social, demographic, technological, political/legal, economic, and global environments, as well as industry environment of competitors, buyers, suppliers, and substitutes. Course is cross-functional capstone for all business majors. All students expected to participate in designated AACSB International student learning outcome assessments. *Prerequisites: MKT305, FIN311, SCM330, MGT305.*

MGT498 Strategy Implementation (3 crs.)

Examines the challenges of implementing strategies in multinational firms (MNEs). Successful firms today are distinguished not by those whose planning is stellar but those who are able to implement a stellar plan. Provides students with a more detailed application of strategy concepts and organizational challenges that impact the implementation process. Course is cross-functional capstone course for management concentration business students. *Prerequisites: MKT305, FIN311, SCM330, MGT305, MGT497 (or concurrent).*

Management Information Systems (ISM)

ISM420 Telecommunications and Distributed Processing (3 crs.)

Examines technology, organization, and operations of telecommunications and distributed data processing systems. Topics discussed include hardware/software facilities, transmission systems, system design considerations, and network configurations. Hands-on exercises and case studies used to illustrate the application of telecommunication and distributed processing technology. *Prerequisite: ISM344 or permission of instructor.*

ISM442 Electronic Commerce and Technology Integration (3 crs.)

Covers the Internet and electronic commerce concepts related to three specific areas: business operations and management, technology utilization, and industry-specific applications such as finance and marketing. Class lectures and hands-on application development applied to the examination of business and technical issues involved in designing, implementing, and managing business operations and commerce via electronic means, including the Internet. *Prerequisites: ISM355.*

ISM446 Applied Project Management (3 crs.)

This senior capstone course provides an in-depth coverage of the analysis, design, and development of projects within the various environments including business. Cooperative project teams will propose, design and build solutions for selected academic or business applications. Coverage includes: analysis of current project requirements, management of project activities; design of proposed solution; activity scheduling; establishment of practical quality controls; publication of project documentation; project delivery and closure. Project management concepts, earned value management, and brainstorming techniques will be covered with related software introduced.

ISM490 Selected Topics in Business Information Systems (3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Marketing (MKT)

MKT430 Marketing Research (3 crs.)

In-depth study of the tools of marketing research, including methodology and techniques used in measuring characteristics of markets for products and services. Topics include research process, data collection, sampling, data analysis, and presentation of results. Contains hands-on development of capabilities to study characteristics of the marketplace. *Prerequisites: MKT305, MKT306, and SCM200, or departmental permission.*

MKT490 Selected Topics (1-3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

MKT495 Marketing Analysis and Strategy Development (3 crs.)

Capstone synthesis course for marketing majors. Requires students to apply information and skills learned in business core and marketing courses to case situations and research projects. Critical thinking, use of marketing research, and strategic decision making are stressed. Emphasizes the use of written and oral communication skills as part of the marketing core requirements. *Prerequisites: MKT305, MKT306, and MKT430, or departmental permission.*

Mathematics (MAT)

MAT400 History of Mathematics (3 crs.)

Focuses on the development of mathematical ideas relevant to K-12 mathematics. Some examples include episodes in the development of number systems, algebra, geometry, trigonometry, number theory, and analytic geometry. Some time spent on multicultural issues, sometimes referred to as "ethnomathematics." *Prerequisite: MAT320.*

MAT410 Numerical Analysis (3 crs.)

Primarily methods of numerical approximation to the value of functions, polynomials, and systems of equations. Topics include accuracy of approximate calculations, interpolation and interpolating polynomials, solution of algebraic and transcendental equations. Numerical solution of simultaneous linear and nonlinear equations, principle of least squares, difference equations, and quadrature formulas are studied. *Prerequisites: MAT212 and either CSC180 or CSC110.*

MAT413 Statistics II (3 crs.)

Study of statistical methods and their application to various data sets. The entire statistical process of data collection, fitting data to a model, analysis of the model, verification of the model, and inference will be covered. Topics include hypothesis testing, two-population means, bivariate relationships, regression, ANOVA, experimental designs, two-way tables, time series, survival analysis and multivariate analysis. Examples taken from a variety of disciplines. Concepts reinforced through class projects. *Prerequisite: MAT 313.*

MAT421 Number Theory and Cryptography (3 crs.)

Introduction to a selection of topics from the related fields of number theory and cryptography. Topics may include congruence arithmetic, primitive roots, quadratic residues, perfect numbers, Pythagorean triples, sums of squares, Fermat's Last Theorem, and primality testing, various substitution ciphers including affine, Vigenere, and Hill ciphers and the RSA public key encryption system with several variations. Algorithms for each encryption scheme discussed will be introduced and implemented. *Prerequisite: MAT320.*

MAT422 Partial Differential Equations (3 crs.)

Introduction to partial differential equations, a fundamental branch of applied mathematics. Three classical equations from mathematical physics are discussed: the wave equation, the heat equation and Laplace's equation. Techniques which include separation of variables, Fourier series and fundamental solutions are introduced to address these equations. A introduction to numerical methods is also included. *Prerequisites: MAT213 and MAT322.*

MAT425 Advanced Algebraic Structures (3 crs.)

Detailed study of one or more of the higher level algebraic structures such as groups, rings, fields, or abstract vector spaces. Emphasis on structure theorems such as the fundamental theorem of group homomorphisms and uses the sophistication developed in MAT320. *Prerequisites: MAT318 and MAT320.*

MAT430 Complex Analysis (3 crs.)

Introductory course in the theory of functions of a complex variable. Topics include complex numbers, analytic functions, contour integration, Cauchy's Theorem, and infinite series. Methods of a logical proof are developed and used throughout. *Prerequisites: MAT212 and MAT320.*

MAT441 Real Analysis I (3 crs.)

Designed to give a fundamental understanding of the concepts used in elementary calculus. Methods of a logical proof are developed and used throughout. Topics include real numbers, sequences, limits, continuity, derivatives and the Riemann integral. *Prerequisites: MAT213 and MAT320.*

MAT450 Combinatorics (3 crs.)

Concerned with computing within discrete mathematical structures and combinatorial problem solving. Topics include enumeration techniques including recurrence relations and generating functions; and may include graph theory and graph algorithms. *Prerequisite: MAT320 or permission of the instructor.*

MAT456 Deterministic Methods of Operations Research (3 crs.)

After a brief historical introduction, presents a detailed study of mathematics related to linear programming. The theory includes the simplex method, duality theory, sensitivity analysis, and matrix games. Some applications will be given. *Prerequisites: MAT212 and MAT318.*

MAT476 Probability (3 crs.)

In-depth development of probability and distribution theory. Topics include counting techniques, Bayes' Theorem, random variables, moment-generating functions, univariate and multivariate probability distributions, and the Central Limit Theorem. *Prerequisites: MAT213 and MAT318.*

MAT486 Mathematical Statistics (3 crs.)

Continuation of *MAT476*. Topics include transformations of random variables, order statistics, convergence in distribution, point and interval estimation, likelihood ratio tests, hypothesis testing, linear models, analysis of enumerative data, and analysis of variance. *Prerequisite: MAT476.*

MAT490 Selected Topics in Mathematics (3 crs.)

Opportunity to offer experimental courses at the senior level in areas of mathematics not covered by regular courses. Topics such as foundations of mathematics, number theory, graph theory, cryptography, and advanced applications of mathematics are appropriate at this level.

MAT516 Mathematical Modeling (3 crs.)

Involves the process of developing mathematical models as a means for solving real problems. Encompasses several different modeling situations that use a variety of mathematical topics. The mathematical fundamentals of these topics will be discussed, but with continued reference to their use in finding the solutions to problems. Connections to NCTM Standards, current curriculum projects and the use of various technologies will be made throughout the course.

MAT527 Number Theory Discovery (3 crs.)

Number theory, one of the oldest branches of mathematics, is very much an alive subject, with discoveries made every day. Focus is on topics that relate specifically to the natural numbers. These will be treated as motivational problems to be used in an activity-oriented approach to teaching mathematics at the middle and high school levels. Pace will be non-frantic and designed to promote understanding of the topics covered. Topics include prime number facts and conjectures, divisibility theory for integers, magic squares, Pascal's triangle, Fibonacci numbers, modular arithmetic, and mathematical art.

MAT528 Algebra for Teachers of Mathematics (3 crs.)

Classically algebra has its origins in the solution of equations. The term algebra comes from the Arabic word meaning reductions or restoration and had to do with the idea that in equations whatever was done to one side had to be done to the other in order to maintain or restore equivalence. Modern algebra developed from several classical problems such as: efforts to systematically understand the solutions of polynomials of higher degree; problems of geometry such as construction of regular polygons, trisection of angles, etc., and problems in number theory, e.g. Fermat's Last Theorem. Studies the integers, rationals, reals, polynomials and complex numbers from the point of view of being examples of some of the fundamental objects of algebra—rings and fields.

MAT534 Geometrical Concepts (3 crs.)

Focuses primarily on the foundations and applications of Euclidean and non-Euclidean geometries. Incorporates collaborative learning and the investigation of ideas through group projects and the use of technology. Topics include finite geometries, geometric transformations, triangle and circle properties not previously encountered, and spherical geometry. Provides deeper understanding of geometry that is needed to teach geometry and to illustrate connections between it and other branches of mathematics.

MAT538 Topics in Discrete Mathematics (3 crs.)

Discrete mathematics is the primary source of examples for the Problem Solving and Reasoning and Proof Standards in the *2000 NCTM Principles and Standards for School Mathematics*. Provides an in-depth look at one or more of the many branches of discrete mathematics, with particular emphasis on Problem Solving and Reasoning and Proof in the Secondary Math Curriculum. Specific topics will be taken from the fields of graph theory, recurrence relations, generating functions, game theory, design theory, coding theory, combinatorics or cryptography. *Prerequisite: MAT320 or familiarity with mathematical proof.*

MAT543 Concepts of Calculus (3 crs.)

Many high schools teach some form of calculus. Current reform efforts have shifted the emphasis toward conceptual understanding of key ideas. Conceptual questions take many forms, including interpreting graphical data, using numerical estimation, proving properties of functions and operations, and understanding the foundations of the basic calculus tools. Uses a standard textbook for single variable calculus along with material correlated with the AP Calculus exam, and will emphasize the theory behind the main ideas to prepare teachers for creation, discussion, and assessment of conceptual calculus problems.

MAT551 Technology in the Teaching and Learning of Mathematics (3 crs.)

Provides opportunities to explore the utilization of desktop and handheld technologies, which enhance the teaching and learning of mathematics. Applications of calculators to the school curriculum to be explored include the use of graphing, symbolic, and scientific calculators as well as peripherals such as CBLs and CBRs. Opportunities to investigate computer supported symbolic manipulation systems, geometry programs, spreadsheet applications, and Internet resources. *Prerequisite: graduate standing or permission of instructor.*

MAT552 Mathematical Discovery (3 crs.)

Treats problems from many areas of math with emphasis on understanding, learning, and teaching problem solving. The history of problem solving in general and its application to particular problems is investigated.

MAT572 Probability for Middle and High School Teachers (3 crs.)

Explores introductory topics such as computing probabilities for simple, compound events, mutually exclusive and conditional events. Further topics include the study of random variables, expected value, discrete distributions including binomial and Poisson, continuous distributions including normal, uniform, and exponential, simulations, and sampling distributions of sample statistics. TI-83 graphing calculators and the statistical package Fathom used throughout the course.

MAT573 Statistics for Middle and High School Teachers (3 crs.)

Involves the study of statistical methods. Both graphical and numerical representations of data, including histograms, box plots, scatterplots, and measures of center and spread will be introduced. Process of data collection and experimental design will be explored. Concludes with topics involving inference, including confidence intervals and hypothesis tests for means and proportions. Real data sets from a variety of disciplines will be utilized. The TI-83 graphing calculator and the statistical package Fathom used throughout the course. *Prerequisite: MAT572.*

MAT594 Selected Topics (3 crs.)

MAT600 Elements of Research (3 crs.)

Devoted to research techniques and procedures in mathematics and/or mathematics education. Instructor discusses research methods and each student selects a topic on which to do a research study. This study is presented to the class in oral and written form.

Music (MUS)

MUS490 Selected Topics (1-3 crs.)

Philosophy (PHL)

PHL490 Selected Topics (1-3 crs.)

Provides the opportunity for the department to offer courses in areas of departmental major interest not covered by the regular courses. *Prerequisite: Instructor's option.*

Physics (PHY)

PHY411 Quantum II (3 crs.)

Introduction to physical concepts and mathematical formulations of nonrelativistic quantum mechanics. Enables a detailed study of the Schrodinger Equation and its properties. The Schrodinger Equation is solved exactly for the particle in a square well potential, the simple harmonic oscillator, and the hydrogen atom. Both perturbation theory and variational calculation are developed as methods for handling more complicated systems. Spin is introduced as an ad hoc concept and the properties of simple magnetic systems studied. Heavy emphasis on applications to simple systems. Three periods lecture/week. *Prerequisites: PHY311, MAT318, and MAT322 (at least concurrently).*

PHY421 Electricity and Magnetism II (3 crs.)

A continuation of Electricity and Magnetism I, treating some of the same topics but with an increased of sophistication. Provides a solid foundation in one of the core subjects of the discipline. Topics include: electrodynamics and Maxwell's equations; conservation laws; electromagnetic waves and relativistic electrodynamics; electromagnetic waves; potentials and fields of moving charges; radiation by moving charges; special relativistic treatment of electrodynamics; electromagnetic radiation by a point charge. *Prerequisites: PHY321 and MAT322.*

PHY431 Mechanics II (3 crs.)

Intermediate course in the treatment of Newton's laws of motion, vector analysis, and rectilinear and curvilinear motion in a plane, as well as study in areas of statics and dynamics, including concurrent and non-concurrent forces, movements and torques, energy, rotational motion, moments of inertia and oscillatory motion. Three periods of lecture/week. *Prerequisites: MAT213, MAT318, MAT322 (at least concurrently), and PHY331.*

PHY450 Quantum Materials (4 crs.)

Lecture/lab course covers material topics in modern solid state physics with an emphasis on applications to nanotechnology. Topics covered include carbon nanotubes, organic conductors and semiconductors, photonic crystals, and microfluidics. Topics in biological and self-assembled systems including, biomolecular motors, motor proteins and the organic-to silicone interface are also covered. Techniques for manipulating and characterizing materials at the nanoscale are also covered in both the lecture and the laboratory. *Prerequisites: PHY311 and MAT322, or CHM362 and PHY461, or permission of instructor.*

PHY461 Mathematical Physics (3 crs.)

Introduces some of the many mathematical concepts used routinely by theoretical physicists. Specific topics are left to the discretion of the instructor but can include such subjects as elements of differential geometry, complex analysis, or methods for solving integral and differential equations. *Prerequisite: PHY301.*

PHY471 Computational Physics (4 crs.)

Introduces the use of sophisticated numerical techniques to solve physical problems. Topics include: approximation methods; numerical integration; ordinary and partial differential equations; random processes; spectral analysis; and Monte Carlo methods. *Prerequisites: PHY301, CSC110, and MAT322.*

PHY481 Atoms and Photons (3 crs.)

Investigates the structure of matter at the atomic level, the free photon field and their mutual interaction. Possible topics are: hydrogen atom review; generalized angular momentum theory; radial wave functions and self-consistent field solutions; coupling schemes and atomic eigenstates; general excitation and decay dynamics; quantization of the free EM field; coherent and incoherent states of the photon field; atom-photon interaction terms, gauge representations; 1st order process: e.g. absorption and emission; and higher order processes: e.g. 2-photon decay. *Prerequisites: PHY301, PHY311, and PHY321.*

PHY485 Optics (4 crs.)

Both geometrical and physical optics and applications. Optical instruments, wave propagation, interference diffraction, polarization, and atomic molecular spectra are studied. Spectroscopes, spectrometers, polariscopes, photometers, and interferometers are some of the instruments used. Three periods lecture and two periods lab/week. *Prerequisites: MAT213, MAT318, MAT322, and PHY321.*

PHY493 Selected Topics (1-3 crs.)

Opportunity to offer courses in areas of departmental major interest not covered by the regular courses.

Political Science (PLS)

PLS431 Pennsylvania Local Government (3 crs.)

Concerns the structure and administrative functions of local governments in Pennsylvania. Extensive emphasis placed on analyzing local governmental functions and problems emanating from the jurisdictions' political, social, and economic environments. *Prerequisite: nine hours in political science or permission of instructor.*

PLS501 Organizational Theory and Behavior (3 crs.)

Examines organization theory relevant to the administration and leadership in complex organizations. Focus is on topics of bureaucracy and development of administrative thought; human behavior in organizations including individual motivation, group and interpersonal dynamics, and leadership modes; organization structure, process, and dynamics; organizational development and change; and emerging perspectives in the field.

PLS502 Human Resources Management (3 crs.)

Case study course reviewing personnel administration integratively as an administrative, behavioral, and technical area. Role of the line manager in personnel administration is covered, as well as the technical roles of central personnel agency and the operating personnel office.

PLS503 Foundations of Public Budgeting and Finance (3 crs.)

Provides knowledge base required to understand the principles underlying public sector budgeting and decision making. Public sector decision models are explained and the theory of public goods examined in depth. Evolving techniques for satisfying public needs through the private sector (e.g. privatization) are investigated and outcomes analyzed.

PLS504 Ethics for Public Service Managers (3 crs.)

Examines specific contemporary ethical concerns in the public sector and the ethical conduct required by statutes and codes of conduct. Appropriate case studies discussed, emphasizing the constantly changing standards in the public sector.

PLS511 State Government (3 crs.)

Studies state governments in the American federal system and analyzes state government institutions and processes with special reference to Pennsylvania.

PLS512 Intergovernmental Relations and Programs (3 crs.)

Examines the developing area of intergovernment relations among federal, state, and local governments. Special emphasis placed upon the work of the Advisory Commission on Intergovernmental Relations and implementation where feasible by state and local governments.

PLS521 Collective Bargaining and Labor Relations in the Public Sector (3 crs.)

Reviews whole area of relations between public employees and public employers and impact on public personnel administration. Some guide-lines used for past contractual arrangements are covered.

PLS551 Planning and Public Policy (3 crs.)

Examines relationship between the planning process and public policy including the inputs into the development of public policy as well as legal and other constraints. Using the current national budget priorities as a national plan and in-depth examination and reconciliation of these priorities is carried out in view of political, social, and economic constraints.

PLS561 Administrative Law (3 crs.)

Study of the law concerning the powers and procedures of administrative agencies. These governmental bodies which affect the rights of private and public parties through either adjudication or rule making are compared to and contrasted with the judicial, legislative and executive processes using the case method.

PLS591 Selected Topics (3 crs.)**PLS601 Research Methods (3 crs.)**

Survey of the research process including preparation of a research design, use of theoretical framework, and testing of hypothesis by gathering and analyzing data. Recommend the student complete this course as early in the graduate program as possible.

PLS603 Public Policy Analysis (3 crs.)

Briefly examines the policy making and policy implementation processes as they relate to the analysis of public policies. Major focus is upon results-oriented management techniques, and a number of specific quantitative policy analysis techniques.

PLS605 Applied management Techniques in Public Administration (3 crs.)

Requires students to demonstrate their ability to successfully resolve workplace situations by utilizing principles and concepts of public management as presented in the core and elective courses of the MPA curriculum. Employing the case study method and additional reading, the principal focus requires the students as individuals and in teams to work with the development and implementation of public policy. Takes an application and problem-solving approach designed to develop the practical management skills required in the current public administration workplace.

PLS611 Internship I (3 crs.)

Opportunity to practice public administration theory and concepts as participant and an observer in the process. Placement on a limited basis in a government or nonprofit activity enhances the student's preparation in the field.

PLS612 Internship II (3 crs.)

Opportunity to practice public administration theory and concepts as participant and an observer in the process. Placement on a limited basis in a government or nonprofit activity enhances the student's preparation in the field.

PLS621 Thesis I (3 crs.)**PLS622 Thesis II (3 crs.)****Psychology (PSY)****PSY500 Advanced Research Design and Statistics I (3 crs.)**

Concerned with scientific method to the investigation of behavior. Research methods and experimental design and statistics are reviewed along with a survey of the more recent significant developments in the field of psychology. Use of computer statistical packages to analyze data is emphasized. Students demonstrate competency in descriptive statistics. *Prerequisite: required to pass a competency exam prior to entry into the course. Contact the professor or departmental secretary for test procedures.*

PSY501 Advanced Research Design and Statistics II (3 crs.)

Second component of the research design and statistics sequence is concerned with the scientific method in the investigation of behavior. Advanced research methods and experimental design and statistics are reviewed along with a survey of the more recent significant developments in the field of psychology. Use of computer statistical packages to analyze data is emphasized. Students demonstrate competency in multivariate statistics. *Prerequisite: PSY500.*

PSY512 Theories of Learning (3 crs.)

Examines the explanations of human learning processes offered by various behavioral and cognitive theorists. Classical and contemporary theories and applications are presented dealing with topics such as conditioning, motivation, memory, and problem solving.

PSY515 Theories of Personality (3 crs.)

Explores theories, issues, and research in personality, and encourages the psychology graduate student to develop his or her own pragmatic orientation.

PSY516 Motivation (3 crs.)

Examines and compares different theories of motivation. Basic motives such as hunger, thirst, sex, and aggression in humans and animals examined. In addition, more complex motives discussed in light of decision theory.

PSY518 Introduction to Behavior Analysis (3 crs.)

Study of the principles of respondent conditioning, operant conditioning, and observational learning, as well as the application of these principles as a means to modify behavior through the following techniques: Desensitization, counter-conditioning, extinction, stimulus control processes, reinforcement, punishment, modeling. *Prerequisite: PSY500.*

PSY519 Life Span Psychology (3 crs.)

Lifespan development provides information about developmental processes from conception through adulthood. Interaction of environmental and genetic factors stressed. Theoretical points of view are presented. *Prerequisite: undergraduate course in child development and/or permission of the instructor.*

PSY527 Studies in the Psychology of Adolescence (3 crs.)

Systematic study of physical, behavioral, and psychological development of the individual from puberty to emerging adulthood.

PSY529 Psychology of Successful Aging (3 crs.)

Focuses on process of aging during later years of the life span. Developmental approach provides basis for the systematic study of aging. Interaction of the physiological, psychological, emotional, intellectual, and social aspect of aging are emphasized. *Prerequisite: PSY519.*

PSY530 Studies in the Psychology of the Exceptional Child (3 crs.)

Concerned with findings of significant studies on the exceptional child. Emphasis given to the contributions of research dealing with characteristics of the exceptional child, identification, ways of meeting special needs and implications for the child and those who work with them.

PSY531 Advanced Cognitive Psychology (3 crs.)

In-depth analysis of new issues within the field of cognitive psychology. Sample content includes models of memory, processes of cognition, implicit versus explicit memory, and problem solving.

PSY533 Advanced Social Psychology (3 crs.)

Study of how people make sense of others and of themselves; how ordinary people think about people and how they think they think about people.

PSY534 Survey of Research in Abnormal Behavior (3 crs.)

Review research and theoretical contributions to the understanding of abnormal behavior, with primary emphasis on discussion of recent research findings regarding the etiology of various mental disorders.

PSY540 History of Psychology (3 crs.)

Reviews history of psychology from its roots in philosophy through its transformation into a science. Included is a critical examination of major issues, assumptions, and schools of thought.

PSY565 Human Factors (3 crs.)

Focuses on the application of psychological principles of human behavior, perception, and cognition to real-world environments. Topics include improving workplace and transportation safety, improving human-computer interaction, and discussing general ways humans can work more easily and naturally with complex technologies in today's society.

PSY570 Seminar in Cognitive Science (3 crs.)

Cognitive Science is a multi- and inter-disciplinary field that draws primarily from the perspectives of cognitive psychology, artificial intelligence, linguistics, and philosophy that converge on a set of core questions addressing the nature of the human mind. Seminar involving reading primary sources of the various perspectives as well as the overarching cognitive science literature, discussion of methods and findings, and understanding and developing applications to real-world problems using computational or information processing approaches.

PSY590 Introduction to Group Dynamics (3 crs.)

Examines the theory and experiences of group interaction. Observation and participation in face-to-face groups of varying structures and functions are provided. Theories of group development and observational systems and techniques applicable in educational, business, and institutional settings are examined. Selected topics include goal analysis, functional group structures, leadership influence, conforming norm pressures, deviant behaviors, and communication network patterns.

PSY594 Selected Topics (3 crs.)

Opportunity to study concepts and research in areas of psychology not covered by the regular course of study in a seminar setting. Areas covered are those in which instructors have special expertise and in which there is a special student request.

PSY595 Selected Topics in Psychology (3 crs.)

Opportunity to study concepts and research in areas of psychology not covered by the regular course of study in a seminar setting. Areas covered are those in which instructors have special expertise and in which there is a special student interest.

PSY596 Selected Topics in Psychology (3 crs.)

Opportunity to study concepts and research in areas of psychology not covered by the regular course of study in a seminar setting. Areas covered are those in which instructors have special expertise and in which there is a special student interest.

PSY598 Independent Study (3 crs.)

PSY612 Thesis I (3 crs.)

Designed to provide master's degree candidates with opportunity to conduct a major research project. A research proposal, literature review, and a pilot study required. First in a two-course sequence. *Prerequisite: PSY500.*

PSY613 Thesis II (3 crs.)

Second of a two-semester sequence designed to provide master's degree candidates an opportunity to conduct a major research project. Students implement the research proposal designed in Thesis I, collect data, complete a statistical analysis, write a research report, and make an oral presentation. Students experience the procedure and format of conducting a research project that might be prepared for publication in a psychological journal. *Prerequisite: PSY612.*

PSY621 Field Experience I (3 crs.)

Field experience in a governmental, industrial, or institutional setting providing supervised professional experiences. Students must accumulate a minimum of 150 clocked hours at a site during one academic semester. *Prerequisites: PSY500, PSY501.*

PSY622 Field Experience II (3 crs.)

Field experience in a governmental, industrial, or institutional setting providing supervised professional experiences. Students must accumulate a minimum of 150 clocked hours at a site during one academic semester. The field experience may take place in the same setting as PSY621, although it must involve a different project. *Prerequisites: PSY500, PSY501, PSY621.*

Reading (RDG)

RDG413 Teaching Reading to English Language Learners (3 crs.)

Designed to address teaching reading and writing to the English language learner in a non-ESL classroom; address the concerns of teachers who encounter students in their classrooms who are learning English; explore theories about first- and second-language acquisition; introduce classroom best practices in literacy as they relate to learners of English; and support teachers in developing an understanding of the basic principles of teaching and assessing English language learners with practical suggestions for assisting students in learning to cope in their new culture. *Reserved for reading minors and master's of reading students.*

RDG422 Studies in Children's Literature (3 crs.)

Designed to incorporate children's literature as a method for examining the relationships between authors' writing processes, curriculum, and pedagogy in the elementary classroom. Emphasizes current literacy research related to writers' craft in order to demonstrate a wide range of purposes and styles of writing and how various genres can be used to develop literacy skills.

RDG443 Reading Measures and Interventions in PK-4 (3 crs.)

Focuses on assessment methods, including observation, informal, and formal assessment measures to diagnosis and describes stages of reading development among readers, specifically prekindergarten through fourth grades. Uses assessment data to identify and implement literacy instruction for small groups and individual learners. Participation in an education field experience will be required. *Prerequisites: ECH253, RDG323, and RDG363.*

RDG520 Tutoring Secondary Students (3 crs.)

Designed to give master's degree candidates experience working with upper-grade students who are having difficulty becoming effective readers and writers. Candidates will tutor 3-5 freshman students once per week for the course duration. In addition, students' reading and writing abilities will be assessed at the beginning and end of the course.

RDG528 Foundations of Literacy Development (3 crs.)

Provides a comprehensive overview of factors related to literacy development and explores the implications of knowledge about the reading/writing process for effective instruction. Topics considered include research knowledge about literacy processes, early literacy experiences, comprehension, vocabulary/concept development, word identification, literature for reading instruction, microcomputers and literacy, instructional materials, classroom organization for effective literacy instruction, and strategies for instruction/assessment in reading.

RDG529 Reading and Reasoning Beyond the Primary Grades (3 crs.)

Examines comprehensively all aspects of literacy instruction for older children and adults. Special attention given to topics having unique relevance to older readers such as: mastery of expository text structures, development of independence in monitoring and controlling one's own reading, building of vocabulary concepts, and development of positive attitudes toward print.

RDG532 Diagnosis and Assessment in Reading (3 crs.)

Explores varied means for obtaining information about children's abilities in using print as a basis for aiding further development. Critically examines the strengths and weaknesses of assorted reading/writing assessment strategies. Emphasis given to those strategies that are process-oriented and have the most direct application to instruction. Students will practice using informal observation techniques and varied measurement instruments as a basis for preparation of a clinical case report. *Prerequisites: RDG528 and RDG529 or permission of instructor.*

RDG533 Advanced Diagnosis and Assessment in Reading (3 crs.)

Further examines issues introduced in *RDG532* with emphasis upon refining and expanding expertise in observation of literacy development. Preparation of a clinical case report required. Other topics investigated include: current issues in literacy assessment, new strategies for assessment, organizing classrooms for optimal diagnosis and instruction, recent literature by reading researchers with implications for assessment. *Prerequisite: RDG532.*

RDG534 Laboratory Practicum in Reading (3 crs.)

Provides experience in facilitating children's literacy development in a clinical setting with guidance and support from university faculty. Assessment/instructional strategies are practiced and discussed as a means of building insights about literacy processes and individual developmental needs. *Prerequisite: RDG532.*

RDG535 Seminar in Literacy, Language, and Reading (3 crs.)

Explores current understandings of literacy processes with opportunities for in-depth study of topics of special interest and relevance. A capstone course, students reflectively examine concepts introduced in earlier courses including possibilities and problems of their application in varied instructional settings. Practice in curriculum leadership roles such as writing for publication and planning/implementation of in-service sessions provided. *Prerequisites: RDG532, RDG534, and two other graduate-level courses in reading.*

RDG537 Brain Based Strategies for Literacy Learners Experiencing Difficulties (3 crs.)

Focuses on differentiating reading and writing instruction within various settings, including supplemental and classroom, for meeting the needs of struggling learners. Includes techniques for using intervention team meetings to select appropriate services, collaborating with teachers across intervention programs, and using assessment to monitor learner's progress.

RDG554 Practicum in Reading (3 crs.)

Addresses a series of practical issues Teacher Leaders face on a daily basis. Topics include teaching adults, how to work with administrators, parents, and trainers of teacher leaders in coming years. Field site visits are included. *Prerequisite: master's degree.*

RDG555 Practicum in Assessment (3 crs.)

Prepares Reading Recovery teachers to learn to observe and record the reading and writing strengths of individual children. Field site visits are included. *Prerequisite: master's degree.*

RDG594 Selected Topics (1-3 crs.)**RDG599 Independent Study (3 crs.)****RDG601 Language Development Theory (3 crs.)**

Focuses on theory and current research related to effective Reading Recovery instruction. Examines and applies theoretical principles of learning and literacy learning to their practice. Evaluates and relates theories of literacy learning, thinking, and teaching to the process of becoming literate.

RDG602 Reading Thoughts and Processes (3 crs.)

Reading Recovery is a system intervention that changes how educators think about learning and instruction. Teacher Leaders are key to creating systemic change. Examines recent developments and research regarding issues Teacher Leaders are most likely to face when implementing Reading Recovery Programs in their respective sites.

RDG607 Reading Recovery Training for Teachers I (3 crs.)

Assists teachers in developing an understanding of the Reading Recovery procedures in order to select from these procedures to meet individual learning needs. Lesson analysis, specific strategies, and charting student progress are important components of course. *Prerequisite: permission of instructor.*

RDG608 Reading Recovery Training for Teachers II (3 crs.)

Refines and expands the Reading Recovery teacher's level of awareness and understanding of how to effectively implement the Reading Recovery Program. *Prerequisite: permission of instructor.*

RDG609 Internship (3 crs.)**RDG612 Thesis I (3 crs.)**

Students identify, explore, and synthesize current information regarding a topic of special significance in literacy education. Work guided by reading faculty and must be approved by faculty committee. All students expecting to undertake advanced graduate studies in reading are urged to elect the thesis option.

RDG613 Thesis II (3 crs.)

Continuation of *RDG612*.

Science Education (SCED)

SCED510 Foundations of Science Education in the United States (3 crs.)

Includes the historical and philosophical foundations of secondary education in the United States with particular emphasis on science education (i.e. the nature of science). Current issues such as federal and state educational policies and curriculum standards, standardized testing and accountability, and professional expectations for teachers will also be discussed.

SCED520 Research and Contemporary Issues in Science Education (3 crs.)

Surveys various research approaches in science education including quantitative, qualitative, and mixed methods. Emphasis placed on research characterizing contemporary issues such as inquiry-based instruction, effects of curriculum standards and standardized testing, and nature of science instruction. Action research (for the purpose of improving one's own practice) included and each student will design a project to be completed and presented as part of the capstone review (SCED590).

SCED530 Instructional Strategies and Technology in Science Education (3 crs.)

Assists with understanding the variety of strategies and philosophies behind those strategies for presenting instruction. Specific instructional models related to science education (learning cycle, 5E, and inquiry based instruction) utilized. Students develop their own instructional philosophy in concert with the national efforts in the science education field through readings, discussions, classroom observations, plus simulated and real teaching activities. Students will be prepared to design coherent instruction through curriculum design, unit planning and individual daily lessons. Also includes understanding how the instruction/assessment/evaluation process occurs and results in a student grade.

SCED540 Assessment in Science Education (3 crs.)

Includes all facets of the assessment process within the science classroom. Standardized achievement, diagnostic and aptitude tests, and teacher constructed tests will be examined. Emphasis placed on assessing students' conceptual understanding within the sciences through a variety of formative and summative assessment strategies. Also includes understanding how the instruction/assessment/evaluation process occurs and results in a student grade.

SCED550 Safety and Welfare in Science Education (3 crs.)

Surveys the primary safety concerns in science instruction with emphasis on chemical safety, safety equipment and procedures, and legal and ethical considerations for using live and preserved organisms in the classroom and field. Principles and legal requirements for classroom design and how classrooms and laboratories must be modified to accommodate students with learning and physical disabilities also included.

SCED560 Accommodating all Students in Science Teaching (3 crs.)

Examines the intellectual, physical, sensory and social-emotional differences of individuals as they pertain to learning processes. Also addresses the needs of English Language Learners (ELL) in the science classroom and how to best accommodate these students within a science classroom for opportunities to be engaged in all aspects of learning science.

SCED590 Student Teaching and Science Education Practicum (12 crs.)

MAT capstone course consists of two parts: 1) A twelve-week student teaching experience where students assume incrementally more responsibilities for lesson planning, assessment, classroom management, and other teacher-related duties under the guidance of an experienced mentor teacher and a university supervisor. Assignments include a comprehensive unit plan and an assessment portfolio. 2) A four-week period where students complete and present their professional portfolios and action research projects to a panel of secondary science teachers and university professors.

Social Work (SWK)

SWK420 Gender Issues for Helping Professionals (3 crs.)

Examines institutionalized gender socialization, current gender issues and controversies, feminist theory for understanding behavior, and guiding principles and practices for helping professionals. Students encouraged to develop heightened self-awareness about their gender-related attitudes and values for functioning as a helping professional. May be taken for undergraduate or graduate credit. *Prerequisite: SWK270.*

SWK450 Social Welfare Policies and Services (3 crs.)

Presents framework for developing and analyzing contemporary social policies and programs. Focuses on current issues and social problems by examining policy and service implications with an emphasis on realist development and change strategies.

SWK490 Selected Topics in Social Welfare (1-3 crs.)

Provides the opportunity for a range of topics to explore issues and concerns for the helping professions. Designed for advanced undergraduate and graduate students.

SWK501 Principles and Philosophies of Social Work (3 crs.)

Introduces the generalist model for practice, which serves as a base for subsequent social work courses and provides initial understanding of the needs and issues of special populations in relation to social welfare policies and services as well as social work practice. Provides an introduction to the profession and the MSW program while helping to prepare students for their subsequent field placements. Fifteen volunteer hours are required. Approximately one-third each online content, in person with the instructor, and via video conferencing.

SWK505 Understanding Social Work Practice with Diverse Populations (3 crs.)

Focuses on issues of understanding human diversity, risk, societal power and privilege, including issues related to sexism, heterosexism, classism, ageism, religion and spirituality, cultural identity development oppression, risk, resilience, and empowerment. Approximately one-third each online content, in person with the instructor, and via video conferencing.

SWK510 Human Behavior in the Social Environment I (3 crs.)

Examines the life span approach to human development with a focus on the interaction between the individual's bio-psycho-social functioning and the social environment. It considers the impact of micro and mezzo (i.e. families and small groups) systems on behavior with particular emphasis given to populations considered to be at risk. Approximately one-third each online content, in person with the instructor, and via video conferencing. *Prerequisite: SWK501.*

SWK511 Human Behavior in the Social Environment II (3 crs.)

Emphasizes 1) the interaction of social and economic forces with young, middle-aged, and older adults and social systems; 2) traditional and alternative theories about systems as they interact with people, promoting and impeding health, welfare, and well-being, in context of human culture and diversity; and 3) knowledge about opportunity structures and how they promote and deter human development and need-meeting. Students evaluate theory and apply it to practice situations. Approximately one-third each online content, in person with the instructor, and via video conferencing. *Prerequisite: SWK510.*

SWK515 Social Welfare Policy (3 crs.)

Furnishes students with the orienting knowledge and skills needed to examine social welfare policies and to understand their relevance to social service delivery and social work practice. Approximately one-third each online content, in person with the instructor, and via video conferencing. *Prerequisite: SWK501.*

SWK520 Micro/Mezzo Social Work Practice (3 crs.)

Offers opportunities for applying and studying advanced generalist practice with individuals, families and groups. Course content is presented in a face-to-face format with web-based supplements. Students will learn and apply intervention skills to their specific area of interest, which enable development of individuals, families, and groups in environment processes for improving social functioning. *Prerequisite: SWK501; co-requisite: SWK530.*

SWK521 Macro Social Work Practice (3 crs.)

Course conceptualizes macro social work as the profession that brings about social change and extends from understanding theories about communities and organizations to assessment and practice. Focus on analysis of the community as a social system, common strategies for producing change in community work, and the nature of formal organizations as environments through which social services are provided in the community, and the knowledge and skills necessary to affect change within organizations. Examines the role of a macro social worker as program developer, program administrator and organization developer. Meets two-thirds in the classroom with one-third online work. *Prerequisite: SWK520; co-requisite: SWK531.*

SWK525 Research Methods (3 crs.)

Introduces research concepts, procedures for conducting research and their application to social work practice. Advanced knowledge of scientific inquiry, the ethics that guide research, and the roles of social workers as researchers are also covered. Both qualitative and quantitative methods of collecting and analyzing data are given major attention. Students learn the procedure for developing a research proposal. Approximately one-third each online content, in person with the instructor, and via video conferencing.

SWK530, 531 Field Practicum I/II (3 crs. each)

Provides students with practical experience (200 hours each) in supervised direct service activities across all client systems from the individual's level to that of the community. This initial field experience allows students to apply theory and skills acquired in the generalist foundation areas while simultaneously fostering the development of a professionally reflective, ethical, knowledgeable, and self-evaluating social worker. *Co-requisites: SWK520/SWK 521.*

SWK601 Integrative Seminar (3 crs.)

Builds upon the foundation content to integrate BS. learning in preparation for MSW courses. A major focus is an in-depth look at the history of social welfare services and the relationship to current social work knowledge, skills, and values. A volunteer experience is required that serves as the basis for the course project. Primarily taught via distance learning with some meetings with the instructor. *Offered in summer. Prerequisite: advanced standing admission status.*

SWK602 Behavioral Health Care Settings (3 crs.)

Extends and elaborates the advanced generalist approach to social work practice to a special field of practice. Introduces the social worker's role in behavioral health care and the policy issues that impact on practice. Focuses on four content areas: 1) what the social worker's role is in adult and child behavioral health care settings; 2) historic and current policy that affect behavioral health care services; 3) current research in behavioral health care related issues and 4) international models of care. The special field is studied through the examination of curricular areas: human behavior, practice, policy, and services, research and special populations. Designed to help prepare students for advanced generalist social work practice with client systems and social resource systems relating to mental or behavioral health. Social workers are frequently involved in the delivery of services to people and families troubled by mental disorder in settings designed to deal specifically with those problems, as well as in other practice areas such as corrections, schools, child welfare, and gerontology. *Prerequisite: SWK601.*

SWK603 Gender Issues (3 crs.)

In-depth study of the concepts, policies, practices, and research in the field of gender studies. Examines institutionalized gender socialization, current gender issues and controversies, feminist theory for understanding behavior, and guiding principles and practices for helping professionals. Students encouraged to develop heightened self-awareness about their gender related attitudes and values for functioning as a helping professional. *Prerequisite: SWK601 or completion of Foundation year.*

SWK604 Health Care Settings (3 crs.)

Extends and elaborates the advanced generalist approach to social work practice to a special field of practice. Introduces the social worker's role in health care and the policy issues that impact on practice. Focuses on four content areas: 1) what the social worker's role is in various health care settings; 2) historic and current policy that affect health care services; 3) current research in various health care related issues, e.g. living wills and AIDS and 4) international models of care. The special field is studied through the examination of curricular areas: human behavior, practice, policy, and services, research and special populations. *Prerequisite: SWK601 or completion of Foundation year.*

SWK605 Child Welfare Settings (3 crs.)

In-depth study of the concepts, policies, practices, and research in the field of child welfare and family and children services. Provides an introduction to the child welfare field, an overview of the development of services for children, a detailed examination of the provision of services; and an exploration of the ethical implications of child welfare practice. Focuses on the spectrum of services designed to support, supplement, or substitute for the care traditionally given by biological parents, and explores the major issues confronting the practitioner today with implications for the future. Views family events within their ecological context and strives to create sensitivity to various family forms and orientations. In concert with the generalist perspective and program goals and objectives, students will have learning experiences designed to develop and integrate their knowledge, values, and skills essential for the attainment of advanced level competency in child welfare and family and children service. *Prerequisite: SWK601 or completion of Foundation year.*

SWK606 School Settings (3 crs.)

Designed to provide an in-depth understanding of the field of social work practice within school settings. Covers policy, research, practice, and human behavior content within the field of schools through the exploration of broad content and the use of a variety of educational approaches. Examines the roles and functions of social workers within educational institutions, and provides students with opportunities for exploration of the application of social work values and ethics within a host setting. Issues of economic and social justice as well as diversity are also examined in the content of the educational systems of the United States. *Prerequisite: SWK601 or completion of Foundation year.*

SWK607 Emergency Mental Health and Trauma (3 crs.)

In-depth study of the concepts, policies, practices, and research in crisis intervention during disasters. Provides introduction to the disaster field, a detailed examination of the human service delivery systems; and guidelines for attending to the emotional and mental health needs of both disaster survivors and responders, using the Critical Incident Stress Management model. *Prerequisite: SWK601 or completion of Foundation year.*

SWK608 Program Management (3 crs.)

Designed to expand students' knowledge of and skills in effective program management of human services organizations and to provide approaches for managing service program effectively. Organizational and management theories and principles are applied to a range of human services. *Pre- or Co-requisites: SWK601 or completion of Foundation year.*

SWK609 Introduction to Art Therapy (3 crs.)

Advanced elective course explores the principles and the techniques of art therapy and considers the usefulness of art therapy in providing alternatives and supplements to the customary verbal methods of intervention. Ways of working with clients at various stages of the life cycle, childhood through old age, and with clients who are on different levels of psychosocial functioning are examined. Issues in art therapy are explored both cognitively and experientially. Previous training in the visual arts and artistic ability are not required. *Prerequisite: SWK601 or completion of Foundation year.*

SWK610 Advanced Human Behavior in the Social Environment (3 crs.)

Required HBSE course puts emphasis on the application of material in the student's area of interest. Students will be encouraged to help develop their knowledge through a variety of reading, activities and lecture. Additional material will focus on diversity and populations at risk, and social and economic justice. Approximately one-third each online content, in person with the instructor, and via video conferencing. *Prerequisite: SWK511.*

SWK611 Children and Youth at Risk (3 crs.)

An in-depth study of the concepts, policies, practices and research in the field of child services including school social work and child welfare. In addition, this course will provide a detailed exploration and understanding of a range of at-risk children and youth populations and their families. This comprehensive understanding will assist practitioners to effectively conduct an assessment, develop a treatment plan listing evidence-based intervention strategies and/or prevention programs that will effectively meet the complex needs of at-risk populations and their families. The challenges and ethical dilemmas confronting social work practitioners working with at-risk populations and their families will also be addressed. *Prerequisites: SWK521 and SWK601*

SWK612 Social Work and the Law (3 crs.)

Social workers understand that virtually everything they do professionally in the 21st century has to include evaluations of risk, legality, funding and unintended consequences. Malpractice appropriately receives much attention in this regard but legislative and regulatory requirements regarding funding, grants and contracts, definitions of disabilities, responsibilities of different levels of government, and many other legal aspects of the profession must also be considered. Social workers need to be somewhat fluent in the law so they can deal with the convergence of law and social work, social services and social policy. Approximately one-third each online content, in person with the instructor, and via video conferencing. *Pre- or co-requisite: SWK601.*

SWK613 Mediation in Social Work Practice (3 crs.)

Mediation as an alternate form of dispute resolution is continuing to rise and is being used in human services, corporate, labor, consumer, and family issues widely across the United States. Students in the Mediation class will focus on practical and theoretical aspects of mediation and its place in the larger framework of alternate dispute resolution for social work clients. Skills in helping parties find common ground, creating a climate for reaching agreement, aspects of confidentiality, and both directive and non-directive mediation techniques will be explored. *Prerequisites: SWK511 and SWK601.*

SWK615 Advanced Social Welfare Policy (3 crs.)

Course introduces conceptual approaches to policy analysis and assesses selected social policies, programs and services in the areas of income maintenance, health care and personal social services in accordance with these approaches and with specific reference to their impact on special populations. Approximately one-third each online content, in person with the instructor, and via video conferencing. *Prerequisite: SWK515.*

SWK620 Advanced Micro/Mezzo Social Work Practice (3 crs.)

Provides advanced knowledge, practice experience and consultation in both a classroom setting and in collaboration with practice in the student's field placement, which focuses on individuals, families, and/or groups. The use of the supervisory model in agencies will be explored in depth. *Prerequisite: SWK520; co-requisite: SWK630.*

SWK621 Advanced Macro Social Work Practice (3 crs.)

Assists the student in developing knowledge of administration supervision, grant writing, fundraising, and budgeting. The macro social work practice course will provide models for developing programs that promote social and economic justice for the underserved, the poor, and the oppressed populations. Meets two-thirds in the classroom and one-third online. *Prerequisite: SWK 521; co-requisite: SWK630.*

SWK625 Advanced Research Methods (3 crs.)

Focuses on social work practice research paradigms, models, and methods. Particular attention is given to the conduct of evaluation and assessments projects. Students will conduct independent evaluative research within their field placement settings. also gives the student a more in depth exploration of gender and ethnic minority

research issues and computer-assisted, descriptive and exploratory data analysis. Approximately one-third each online content, in person with the instructor, and via video conferencing. *Prerequisite: SWK525.*

SWK630,631 Advanced Field Practicum I/II (5 crs./4 crs.)

Students complete 270 hours of supervised agency/organization practice experience during the first semester of the second year. Students will be in the field three days per week. In the second semester students will complete 230 hours of field experience for a total of 500 hours over the academic year. *Prerequisite: SWK530/531 or advanced standing status; co-requisite: SWK620 or SWK621.*

SWK632 Capstone Seminar (3 crs.)

Taken concurrently with SWK631 provides a bridge between the graduate student role and functioning as an advanced practitioner. Examines issues and concerns facing social workers in advanced professional practice, and integrates and synthesizes knowledge, value and skill components with field experiences through focused case studies. *Prerequisite: SWK620 or SWK621; co-requisite: SWK631.*

SWK640 Selected Topics (3 crs.)

Provides the opportunity for a range of topics to explore issues and concerns for the social work profession. Designed for advanced graduate students. *Prerequisite: SWK601 or completion of Foundation year.*

Sociology (SOC)

SOC410 Family and Society (3 crs.)

Focuses on the family as a social institution, a social process, and as an interacting system. Includes emphasis on historical development and interrelationship between the family and society. Major theoretical perspectives are applied to the study of the family. Cross cultural and utopian (U.S.) family movements included. *Prerequisite: SOC101 or SOC257.*

SOC425 Sociology of Law (3 crs.)

Introduction to study of sociology of law and sociology in law. Primarily looks at legal systems of the United States, primary actors in those legal systems, social/cultural contests in which laws exist and are created, and how laws both reflect and affect social structure. Not designed to be a law course in the law school sense. Examines and applies sociological theories, concepts, and research to a particular arena of the social structure—laws and legal systems. *Prerequisite: SOC101.*

SOC435 Gender and Leadership (3 crs.)

Examines the interrelationship of gender and the broader social structure as we come to understand leadership in a variety of settings. Focuses on the larger realm of women and men working, together or otherwise, in leader-follower situations. Examines some of the critical theory on gender and leadership and students will apply the lessons learned to practical examples. *Prerequisite: SOC101.*

SOC445 Sexuality and Sexual Orientation: A Social Approach (3 crs.)

Examines the interrelationship of sexuality and the broader social structure in a variety of settings. Analyzes some of the critical theory on gender and sexuality and apply the lessons learned to issues such as the globalization of sexuality, transgendered and intersexed individuals, sexual exploitation and sex trafficking. intentionally not a course on just sexual orientation; also examines the specific issues, opportunities and threats surrounding the social experiences of GLBTQ and their allies. Students work together to develop better strategies for female/male sexuality and sexual interaction. *Prerequisite: SOC101 or permission of instructor.*

SOC452 Contemporary Social Theory (3 crs.)

Focuses on 20th-century American sociologists and their contributions to the discipline. Idiosyncratic, biographical considerations and a broader "schools of theory" perspective will be utilized. Significant theoretical issues relevant to contemporary sociology also reviewed. *Prerequisite: SOC450.*

SOC486 Qualitative Social Research (3 crs.)

Students will learn techniques of qualitative interviewing and participant observation. Involves basics of ethnographic research, writing fieldnotes, coding and analyzing qualitative data, and writing an ethnographic report. Each student selects individual research question and conducts a field research project of own choice that will reflect own academic interests. Skills learned will be transferable to many disciplines and occupations. *Prerequisite SOC101.*

SOC490 Selected Topics (1-3 crs.)**SOC530 Sociology of Higher Education (3 crs.)**

Examines the different social structures, organizations, and communities that make up higher education in the U.S. today. Emphasis is placed upon the history and recent development of higher education models. Examines how the bureaucratic and institutional structures handle many of the issues, including the role of the “liberal arts,” governance, distance education, the financing of higher education, the emergent emphasis on professional/vocational programs, institutional and systemic inequalities, growth of higher education administrative staffs, increasing role of for-profit institutions, the marketing of higher education, and the various “crises” identified by commentators and critics.

SOC550 Leadership Theory and Practice (3 crs.)

Overview of theories of leadership historical and contemporary. Emphasis on application of theories in pragmatic situations to promote system goals. Understanding of variations in effective leadership models across diverse cultures and subcultures is discussed.

SOC560 Leadership, Change, and Innovation (3 crs.)

Analysis of leaders as agents of social change. Leadership characteristics and strategies that have changed the world will be identified through a diverse set of case studies.

SOC570 Applied Organizational and Leadership Analysis (3 crs.)

Part of capstone experience that will prepare students to conduct an organizational and leadership analysis during their concurrent internship experience. Students will develop a design for their analysis, present and discuss their designs with other students, meet during their internship to discuss their progress, and present their conclusions. *Prerequisites: SOC550, SOC560, PLS501, and PLS601.*

SOC594 Selected Topics (3 crs.)

Provides the opportunity to offer courses in areas of interest to the Organizational Development and Leadership Program not covered by the department’s regular graduate courses.

SOC609 Sociology Graduate Internship (3 crs.)

Designed to give relevant leadership experience in the concentration area. All ODL internships are to be approved by the director of the program in semester prior to the start of the internship. Students would ideally register for *SOC609* and *SOC570* concurrently.

Spanish (SPN)**SPN400 Seminar: Advanced Studies in Spanish Language and Literature (3 crs.)**

Detailed examination of specific aspects of Spanish linguistics, Hispanic literature, history and culture. The seminar may be taken more than once provided that a specific topic is not repeated. *Prerequisite: permission of instructor.*

SPN410 Internship for Students of Spanish (1 cr.)

Contact the department for further information on internships.

SPN420 Theory and Practice of Translation (3 crs.)

Introduces various types and tools of oral and written translation and provides extensive practice in translating in professional contexts (such as business, education, criminal justice, medicine and international politics) and in translating works of literature. A theoretical approach to the problems of translation is also applied.

SPN490 Selected Topics (3 crs.)**SPN510 Hispanic Theater (3 crs.)**

Intends to help in understanding the complexity of Spanish or Latin American Theater throughout the centuries. In a multidisciplinary approach, studies the importance of this literary form, its stature and the social influences that have impacted it. Students analyze the literary importance of the texts and their political, historical and sociological impact on the respective cultures that produced them. Films will be included. Taught in Spanish.

SPN515 Hispanic Poetry (3 crs.)

Intends to help in understanding the complexity of Spanish or Latin American Poetry throughout the centuries. In a multidisciplinary approach, studies the importance of this literary form, its stature, and the social influences that have impacted it. Students analyze the literary importance of the texts and their political, historical, and sociological impact on the respective cultures that produced them. Films will be included. Taught in Spanish.

SPN520 Hispanic Fiction (3 crs.)

Intends to help in understanding the complexity of Spanish or Latin American Fiction throughout the centuries. In a multidisciplinary approach, studies the importance of this literary form, its stature, and the social influences that have impacted it. Students analyze the literary importance of the texts and their political, historical, and sociological impact on the respective cultures that produced them. Films will be included. Taught in Spanish.

SPN525 Hispanic Culture (3 crs.)

Intends to expose the students to the complexity of Spanish or Latin American cultures throughout the centuries in a multidisciplinary approach. Studies the importance of different cultural issues from a political, historical, and sociological standpoint, exploring the impact on the diverse cultures of the Hispanic world. Analyzes different texts and films to illustrate these issues. Taught in Spanish.

SPN530 Spanish Linguistics (3 crs.)

Deals with the grammatical structure of the modern Spanish language and addresses issues relating to phonetics, syntax, morphology, and semantics, all part of what is commonly referred to as grammar. Lectures grounded in practicality and consider the needs of teachers. Prescriptive norms of the language and the actual use of the language in its dialectal variations, including those found in the United States, will be studied. Practicality further emphasized with applications in the written language that will discuss common errors and pitfalls in this form of expression.

SPN535 History of Spanish Language (3 crs.)

Seminar course lets students travel both in time and in space, while considering the evolution of the Spanish language. Starting with Latin, changes systematically studied and analyzed, focusing on the nascent dialectal varieties, their importance, the impact of substrate languages and of others that have influenced what is known as Spanish (Greek, Italian, and Arabic among many others). While the language was in part stabilized thanks to the Academia de la lengua, a body influenced by the French Académie, Spanish has gone through many changes on the American continent, but also in Africa and Asia. Spanish of Latin America, United States, and several countries in Africa and Asia will be explored. Several documentaries complement the seminar.

Special Education — See Education of Exceptional Children (EEC)

Teacher Education (TCH)

TCH423 Integrating Literature in Middle Grades (3 crs.)

Focuses on broadening knowledge base and understanding of children's/young adults' literature available for use with students in content area study. Literature discussed with exploration of incorporating it into middle level content subjects and using it as a tool to enhance literacy and content learning.

TCH440 Gender Equity in Education (3 crs.)

Surveys role of women in educational systems, focusing on women as students, teachers, and administrators. Examines how traditional expectations of women are perpetuated throughout the educational system.

TCH445 Strategies for Effective Classroom Management (3 crs.)

Presents historical perspective of past practices in classroom management strategies, including discipline techniques. Relates current school law to what is legal for teachers in managing classrooms. Surveys current theories and programs regarding classroom and time management strategies. Provides practical suggestions based upon research findings as to how to more effectively and efficiently develop a proactive environment conducive to instruction. Explores multicultural settings and inclusion dynamics as they relate to classroom management strategies.

TCH490 Selected Topics (1-3 crs.)

TCH501 Effective Teaching: Theory and Practice (3 crs.)

Emphasis on assisting teachers to understand and utilize the research and data-based principles of effective teaching. Included are planning and management techniques which enable effective teachers to make efficient use of class time while preventing discipline problems. Theories and practical applications of various discipline models, creative teaching techniques, and self-assessment devices presented.

TCH502 Strategies for Critical Thinking and Problem-Solving (3 crs.)

Offers both a research base and real-world classroom applications for infusing critical thinking and problem-solving into all levels of curricular areas. Encourages participants to create learning environments fostering intellectual curiosity and inventiveness. Explores strategies that challenge students to pose problems and search for ways to solve them. Incorporates performance-based assessment.

TCH505 Instructional Technology for Today's Educator (3 crs.)

Students develop skills in using current technologies to support instruction in a variety of settings. Multimedia software, web page development, and distance learning design and implementation are required. Students examine various aspects of interactive and noninteractive technologies and make instructional applications. Evaluating appropriate hardware and software configurations for delivering instruction is included. Students will use technology to research and develop real life classroom curricular solutions.

TCH511 Elementary School Curriculum and Assessment (3 crs.)

Surveys existing elementary school programs and research to determine and evaluate curricular models and assessment issues. Investigates such areas as purposes of education, curricular content, scope and sequence, classroom climate, standards, and program evaluation.

TCH524 Middle School Curriculum and Assessment (3 crs.)

Surveys basic characteristics of middle school organizational patterns, curriculum design, and evaluation models. Evaluates student development, instructional strategies, and assessment issues. Reviews these areas based on current research.

TCH542 Modern Elementary School Mathematics: Its Content and Method (3 crs.)

Deals with the structure of mathematics: reasoning, sets, numeration systems, operations and their properties and number sentences (equalities and inequalities). Discovery learning of the mathematics is emphasized. *Prerequisite: undergraduate course in teaching of mathematics or permission of the instructor.*

TCH543 Diagnostic Techniques in Teaching Mathematics in the Elementary School (3 crs.)

Designed to help the classroom teacher develop skills in diagnostic teaching of elementary school mathematics. Various learning theories and their implications for mathematics development discussed. A case study interpreting data from standardized and informal tests and applying this diagnostic information to remediation activities required. *Prerequisite: undergraduate course in teaching of mathematics or permission of the instructor.*

TCH545 Earth Science for Elementary Teachers (3 crs.)

Comprehensive study of the earth, including its origin, structure, rocks, soils and minerals, land forms, water, weather and climate in relation to the solar system. The interrelationships between the earth and its peoples are emphasized. The special needs of the elementary teacher are considered.

TCH546 Teaching Science in the Elementary School (3 crs.)

Explores a variety of strategies and techniques for effective N-8 science teaching. An understanding of related science principles is interwoven with practical applications for the classroom. Science curriculum construction and analysis is an emphasis. Science, technological, and societal connections are considered. *Prerequisite: undergraduate course in elementary science methods or permission of the instructor.*

TCH560 Making Social Studies Dynamic (3 crs.)

Eliminates the "bore" and "gore" from social studies by studying the impact of dynamic forces on the technological age of information. Explores the arena for modern media literacy. Examines social forces, controversial issues, current events, cooperative learning, conflict resolution, and pragmatic research findings about the social studies. Investigates how to make the classroom teacher's social studies more relevant and meaningful. *Prerequisite: undergraduate course in teaching of social studies or permission of the instructor.*

TCH575 Advanced Child Development (3 crs.)

Stresses the results of scientific studies which are used to examine cognitive, physical, and social processes in child development from birth to pre-adolescence with an emphasis placed on the early years. Influence of child's environment, home, and school explored.

TCH594 Selected Topics (1-3 crs.)

TCH599 Independent Study (3 crs.)

TCH600 Elements of Research (3 crs.)

Includes a study of the nature and types of research, the selection of appropriate research topics, research techniques including simple statistics, the use of the library resources in research and the systematic collection, evaluation and presentation of research data. Students are guided in developing an action research project in the area of elementary education. Students who have departmental approval and are enrolled in *TCH612* and/or *TCH613* may use the course to assist them in preparing a research proposal. *TCH600 must be completed within the first 15 crs. leading to a master's degree.*

TCH605 Research Seminar (3 crs.)

Presents formal literature reviews of topics related to instructional utilization of computers. Students are required to conduct library research projects as well as action research projects. Seminar leadership on selected topics responsibility of the instructor and students.

TCH609 Internship and Action Research Seminar (3 crs.)

Designed for graduate students to engage in supervised professional activities in selected early childhood, elementary, middle school or secondary education placements.

TCH612 Thesis I (3 crs.)

TCH613 Thesis II (3 crs.)

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Charles J. Haney, M.S., EMAP Specialist
David R. Killius, M.S., Business Consultant
Cheryl E. Young, Business Consultant
J. Patrick Byrne, Ed.D., Coordinator, Entrepreneurial Leadership
Center

College of Education and Human Services

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 Nellie M. Cyr, Ph.D., Associate Dean
 Penny L. Stum, Administrative Assistant
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 Donna L. Ackelsberg, Administrative Assistant
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 Janice M. Allen, Clerk Typist
 Melissa L. Ricketts, Ph.D., Chair, Criminal Justice
 Bonnie G. Heming, Clerk Typist
 Christopher L. Schwillk, Ph.D., Chair, Educational Leadership and Special Education
 Cindy M. Poe, Clerk Stenographer
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 James F. Struna, MAJ, Assistant Professor of Military Science
 John Crumley, CPT, Assistant Professor of Military Science
 Charlie Brown, CPT, Assistant Professor of Military Science
 Todd Eisenhuth, MSG, Senior Military Instructor
 Matthew R. Larzelere, SFC, Training NCO
 Gene B. Mizdail, LTC, PAARNG, ComTek, Recruiting Operations Officer
 Byron C. Stouffer, Human Resources Technician
 Rodney J. Oberbroekling, Supply Technician
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Student Affairs

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 Heidi R. Clark, Executive Assistant to the Vice President
 David L. Lovett, Ed.D., Associate Vice President of Student Affairs and Dean of Students
 Donna K. Gross, M.S., Associate Dean/Director of Orientation
 Janet McKeithan-Janifer, M.A., Associate Dean/Director of Judicial Affairs
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 William J. Yost, M.A., Associate Director for Housing and Residence Life Administration
 Melissa A. Kougher, M.A., Assistant Director of Residence Life
 Jennifer S. Milburn, M.A., Assistant Director of Residence Life
 Robert E. Smith, M.Ed., Associate Dean/Director of Veterans Affairs
 Angela L. Winter, M.Ed., Interim Director of Drugs/Alcohol Education
 Yvonne M. Shoop, B.S.B.A., Management Technician
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 Teresa Clevenger, A.A., Clerk Typist
 Erin F. Kissinger, Clerk Typist

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 Emilee A. Danielson, M.S., Assistant Dean/Director of Fraternity/Sorority Life
 Danielle L. Dabrowski, A.A., Clerk Typist
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 Michelle Olexa, Ph.D., Licensed Psychologist
 Tomoko Grabosky, Ph.D., Licensed Professional Counselor
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 Gloria J. Gardner, Secretary
 Cheryl A. Rotz, Secretary
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 Eric A. Dinsmore, Associate Director
 Melinda R. Kasper, Financial Aid Advisor
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 Kathleen G. Jengeleski, R.N., Registered Nurse
 Deborah C. Lee, R.N., Registered Nurse
 Kathleen Rundquist, Registered Nurse
 Mary D. Shirley, R.N., Registered Nurse
 Barbara H. Summers, R.N., Registered Nurse
 Margaret Horn, R.N., Registered Nurse
 Kimberly Spitler, R.N., Registered Nurse
 Janice M. Bye, United Campus Minister
 Roxanne M. Dennis, Catholic Campus Minister
 Fr. Dave Hillier, Catholic Campus Minister and Pastor, Our Lady of the Visitation Parish
 Nick Iula, Director, Campus Dining Services
 Lisa Horner, Controller, Campus Dining Services
 Brooke Hall, Marketing Director for Dining Services
 Michael Haus, Campus Executive Chef
 Gregg Thuemmel, Production Manager of Reisner Dining Hall
 Bill Connor, Assistant Director of Retail Operations, Campus Dining Services
 Matthew Mosley, Director, Kriner Dining Hall
 Brenda E. Kunkleman, Director, Cash Operations, Campus Dining Services
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 Tony Emondi, Catering Executive Chief
 Lori A. Willis, Catering Supervisor, Campus Dining Services
 Cathy Campbell, Catering Administrative Assistant
 Trish Gamble, Starbucks Manager

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Miranda S. Fisher, B.S., Acting Assistant Director, Sports Medicine
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Melissa P. Hazzard, Assistant Director, Recreation

Coaches

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Kurt Elbin, Assistant Baseball
C. David Springer, M.S., Men's Basketball
Eric D. Rahausser, M.S., Acting Assistant Men's Basketball
Kristin K. Trn, B.S., Women's Basketball
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Kurt A. Dunkel, M.S., Assistant Track and Field
Alison Freas, Assistant Track and Field
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Amanda Houser, Assistant Field Hockey
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Jessica McEvoy Griggs, Assistant Women's Soccer
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Bobbi Jo Carosi, Assistant Softball
Paul O'Brien, Assistant Softball
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Leanne R. Piscotty, B.S., Women's Volleyball
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Ollie Cooperwood, Interim Assistant Wrestling
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Stephanie A. Berger, Patrol Officer

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 (Vacant), Assistant Director, Energy Management
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 Garry E. Wall, Controls Management Technician
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 Duite E. Ricker, Utility Plant Operator
 Shawn L. Rosenberry, Utility Plant Operator
 Randy R. Russell, Utility Plant Operator
 Chad W. Stevenson, Utility Plant Operator
 Gerald L. Swanger, Utility Plant Operator
 Steven A. Trayer, Utility Plant Operator
 Stephen J. Walters, Utility Plant Operator
 Richard L. Bittinger, Utility Plant Helper
 Larry P. Rotz, Utility Plant Helper
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 Timothy L. Hull, Automotive Mechanic
 C. William Jumper, Maintenance Foreman Carpentry
 Ricky E. Group, Maintenance Repair
 Shawn W. Martin, Maintenance Repair
 Daniel K. Timmons, Maintenance Repair
 (Vacant), Carpenter
 Gary S. Harglerode, Locksmith
 Roger S. Woltz, Locksmith
 Kevin L. Oakes, Maintenance Foreman, Electrical/Electronics
 Art E. Crull, Electrician
 Wayne E. Hershey, Jr., Electrician
 Dustin L. Koser, Electrician
 Brian J. Cordell, Electronics Technician
 Paul E. Gutshall, Jr., Maintenance Foreman, Mechanical Systems
 Kayedon M. O'Neal, Refrigeration Mechanic
 Roy F. Ryder, Plumber
 Scott E. Stoops, Refrigeration Mechanic
 Dominic Barbagallo, Maintenance Repair
 Robert C. Martin, Jr., Maintenance Foreman, Painting/Carpentry Repair
 Paul W. Besecker, Painter
 Thomas A. Weaver, Painter
 Roy E. Wisner, Painter
 Daniel P. Geyer, Carpenter
 Arthur E. Martin, Carpenter
 Rodger L. Yohe, Carpenter
 Robert J. Koch, Custodial Services Manager
 Reginald G. Lindsey, Semi-Skilled Laborer
 (Vacant), Semi-Skilled Laborer
 Greg C. Rhone, Labor Foreman
 Chester J. Jumper, Equipment Operator
 Curtis L. Miller, Equipment Operator
 Jeryl S. George, Grounds Manager
 John O. Gossert, Groundskeeper Supervisor
 Jeanne M. Yohe, Groundskeeper Supervisor
 Michael Frey, Groundskeeper
 Joel L. Hosfelt, Groundskeeper
 (Vacant), Groundskeeper
 (Vacant), Groundskeeper
 Terry L. Dunlap, Equipment Operator
 Jason D. Fritz, Equipment Operator
 Bryan K. Kyner, Equipment Operator
 Darrell E. McKenrick, Equipment Operator
 Gregg W. Naylor, Equipment Operator
 Lonnie E. Shaffer, Equipment Operator
Building Services
 Matthew D. Varner, Maintenance Foreman, E and G Zone
 Douglas E. Stepler, Electrician
 Ralph D. Alleman, Maintenance Repair
 Thomas A. Graham III, Maintenance Repair
 Derek Howard, Maintenance Repair
 Scott T. Moyer, Maintenance Repair
 Curtis P. Oakes, Maintenance Repair
 Ronald J. Shindlecker, Maintenance Repair
 Rex A. Henry, Maintenance Foreman, Auxiliaries Zone
 Robert D. Shoop, Maintenance Repair
 Justin R. Strickler, Maintenance Repair
 Hipolito R. Torres, Maintenance Repair
 Timothy L. Wingert, Maintenance Repair
 (Vacant), Maintenance Repair
 (Vacant), Custodial Work Supervisor, Day Shift
 Cindy A. Geyer, Custodial Work Supervisor, Second Night
 Richard E. Foster, Custodial Work Supervisor, Night Shift
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 Christina M. Barrick, Custodial Worker
 Donald J. Baskerville, Custodial Worker
 Troy Bigler, Custodial Worker
 William L. Bittinger, Custodial Worker
 Gladys M. Butts, Custodial Worker
 Jeffrey L. Callan, Custodial Worker
 Karen L. Carey, Custodial Worker
 Steven D. Carroll Jr., Custodial Worker
 Judy A. Cassner, Custodial Worker
 William A. Clayton, Custodial Worker
 Donald Diehl, Custodial Worker
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 Tonya Green, Custodial Worker
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 Donn A. Keck, Custodial Worker
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 Rocky L. Kelly, Custodial Worker
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 Sharon K. Liberator, Custodial Worker
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 Donna L. Loy, Custodial Worker
 Evelyn A. Melius, Custodial Worker
 Donna J. Miller, Custodial Worker

George R. Mogle, Custodial Worker
 Thomas M. Myers, Custodial Worker
 George M. Natoli Jr., Custodial Worker
 Tiffany Nay, Custodial Worker
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 Thomas M. Provins, Custodial Worker
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 V. Paulette Sheets, Custodial Worker
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 JoAnn Sprecher, Custodial Worker
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 Lori A. Stine, Custodial Worker
 Kirk Taylor, Custodial Worker
 Randolph M. Truman, Custodial Worker
 Samuel Vazquez, Custodial Worker
 Dottie L. Werner, Custodial Worker
 Joanne Willis, Custodial Worker
 Lloyd Willis, Custodial Worker

Shippensburg University Foundation

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 Anne M. Detter, M.B.A., Director of Marketing
 Jacqueline L. Stone, A.A., Executive Assistant
 Edna Fenton, Special Projects Assistant
 (Vacant), Director, Development

Kit S. Rossman, B.A., Director, Annual Fund
 Abigail Glock, B.S., Assistant Annual Fund Director
 Patti F. Savoulidis, B.A., Associate Marketing Director for Stewardship and Event Planning
 Krista J. Carroll, B.S., Assistant Annual Fund Director and Phonathon Coordinator
 Sandra R. Jones, B.A., Annual Fund Secretary
 Lani Longarzo, M.B.A., Director, Major Gifts
 Linda L. Miller, M. Ed., Senior Major Gifts Officer
 Kevin S. Bender, B.A., Director, Research
 Graham Messner, B.A., Major Gifts Officer
 Elizabeth C. McKinley, B.F.A., Major Gifts Officer
 Scott D. Lux, B.A., Major Gifts Officer
 Carol H. Rose, Major Gifts Secretary
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 Rhonda K. Horst, M.B.A., C.P.A., Controller
 Diane L. Wenger, A.A., Coordinator, Gift Recording/Records and Office Manager
 Michelle E. Wright, Coordinator, Student Housing
 Samuel E. Wiser, Sr., Maintenance Supervisor
 Virginia Shew, Assistant Maintenance Supervisor
 Stephanie L. McCullough, M.Ed., Child and Family Center Program Director
 Kristi N. Hershey, B.S.Ed., Assistant Director/Lead Preschool Teacher
 Erin L. Rotz, B.S.Ed., Assistant Preschool Teacher
 Kimberly Miller, B.S.Ed., Lead Toddler Teacher
 Nicholas D. Brewer, B.S.Ed., Assistant Preschool Teacher
 Mary Malinda Mansfield, B.S.Ed., Assistant Toddler Teacher
 Lisa M. Taylor, B.S.Ed., Assistant Preschool Teacher

Department Offices

Accounting	Grove Hall	GRH 328	1436
Art and Design	Huber Art Center	HAC 210	1530
Biology	Franklin Science Center	FSC 142	1401
Chemistry	Franklin Science Center	FSC 327	1629
Communication/Journalism	Rowland Hall	RHL 108	1521
Computer Science	Mathematics and Computing Technologies Center	MCT 156	1178
Counseling and College Student Personnel	Shippen Hall	SPH 123	1668
Criminal Justice	Shippen Hall	SPH 321	1558
Economics	Grove Hall	GRH 324	1437
Educational Leadership and Special Education	Shippen Hall	SPH 127	1591
English	Dauphin Humanities Center	DHC113	1495
Finance, Information Management and Analysis	Grove Hall	GRH 228	1434
Geography/Earth Science	Shearer Hall	SRH 104	1685
Exercise Science	Henderson	HG 109	1721
History/Philosophy	Dauphin Humanities Center	DHC 213	1621
Human Communication Studies	Dauphin Humanities Center	DHC 313	1732
Management/Marketing	Grove Hall	GRH 224	1439
Mathematics	Mathematics and Computing Technology Center	MCT 250	1431
Military Science	Wright Hall	WRI 206	1782
Modern Languages	Rowland Hall	RLH 109	1635
Music/Theatre Arts	Performing Arts Center	PAC220	1638
Physics	Franklin Science Center	FSC 123	1570
Political Science	Grove Hall	GRH 424	1718
Psychology	Franklin Science Center	FSC 114	1657
Social Work/Gerontology	Shippen Hall	SPH 335	1717
Sociology/Anthropology	Grove Hall	GRH 428	1735
Teacher Education	Shippen Hall	SPH 214	1688

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As of June 2012

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 B.S., Juniata College; M.S., Shippensburg University; Ph.D., University of North Carolina at Chapel Hill

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 B.S., Shippensburg University; M.P.A., American University; Ed.D., Duquesne University

BARBARA G. LYMAN, Ph.D., *Provost and Senior Vice President for Academic Affairs* (2008)
 B.A., Anna Maria College; M.A., Brandeis University; Ph.D., Louisiana State University; C.A.S. Harvard Graduate School of Education

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Index

- A**
- AACSB International 9, 46
 - ABET, Inc. 9
 - Academic
 - Affairs* 110
 - Appeals Committee* 17
 - Hearing* 18
 - Calendars*
 - 2012-2013 2
 - 2013-2014 3
 - Camps* 66
 - Dishonesty* 22
 - Definition* 22
 - Penalties* 22
 - Plagiarism* 23
 - Resolution of Charges* 22
 - Load* 27
 - Policies and Procedures* 15-24
 - Probation* 19, 29
 - Progress and Standing* 17
 - Academic Progress
 - Requirements for Graduate Student Federal Aid 29
 - Access to Educational Records 10
 - Accounting (ACC) Courses 70
 - Accreditation 9, 48, 57
 - Activities Fee 26
 - Administration and Finance 114
 - Administration of Justice (M.S.) 51. *See* Criminal Justice Department
 - Admission Policies and Procedures 11-14
 - Admission Categories, Other* 12
 - Conditional or Provisional Admission* 12
 - Examinations* 12
 - International Students* 13
 - Non-Degree Students* 12
 - Special Admission* 13
 - Transfer Students* 13
 - Admission Requirements
 - Applied History (M.A.)* 42
 - Business Administration (M.B.A.)* 46
 - Computer Science (M.S.)* 40
 - Criminal Justice Department* 51
 - Educational Leadership and Special Education Department* 52
 - Geoenvironmental Studies (M.S.)* 40
 - Organizational Development and Leadership (M.S.)* 44
 - Science Education (M.A.T.)* 64
 - Teacher Education Programs* 59
 - Transfer Students* 13
 - Admission to Candidacy 21, 49, 58
 - Advanced Studies in Business, Certificate 47
 - Advisement 21
 - American Chemical Society (ACS) 9
 - Americans With Disabilities Act of 1990 9
 - AP Academy 66
 - Applicable Policies 16
 - Application Fee 26
 - Applied History (M.A.) 42
 - Art & Design (ART) Courses 70
 - B**
 - Bad Check Fee 27
 - Behavioral Disorders Option 56, 57
 - B-Grade 13, 16, 49, 55, 56, 57, 62, 81
 - Biology (BIO) Courses 71
 - Biology Department 38
 - Biology (M.S.)* 38
 - Biology (M.S.) 38
 - Board of Governors 110
 - Bookstore 32. *See* University Store
 - Buckley Amendment 10. *See* Family Educational Rights and Privacy Act
 - Business Administration (MBA) 46
 - Business Administration (MBA) Courses 74
 - Business (BSN) Courses 73
 - Business Certificate 47
 - Business Concentration 45
 - C**
 - Campus 9
 - Safety* 10
 - Campus Security Act of 1990 10
 - Cancellation of Classes
 - Weather Conditions* 33
 - Cancellation Policy 64
 - Candidacy. *See* Admission to Candidacy
 - Career Development Center 31
 - Catalog Provisions 10
 - Certificate
 - Advanced Studies in Business* 47
 - Instructional* 37
 - Management Information Systems* 47
 - Programs* 66
 - Supervisory I* 37, 55
 - Certification
 - in Early Childhood* 60
 - in School Counseling* 49, 50
 - in Special Education* 56
 - K-12 School Principal* 37
 - Superintendent's Letter of Eligibility* 37, 53
 - C-Grade 16
 - Changing Appointment 28
 - Chemistry (CHM) Courses 75
 - Child Care 31
 - Civil Rights Act 9
 - Clinical Mental Health
 - Counseling Concentration 50
 - College Counseling
 - Concentration 49
 - College of Arts and Sciences 38, 112
 - Departments and Degrees* 36
 - College of Business, John L. Grove 46, 112
 - Departments and Degrees* 36
 - College of Education and Human Services 48, 113
 - Departments and Degrees* 36
 - College Student Personnel
 - Concentration 50
 - Commencement 21, 32
 - Communication/English Supervisor 39, 55, 56
 - Communication/Journalism (COM) Courses 75
 - Communication/Journalism Department 39
 - Communication Studies (M.S.)* 39
 - Communications Concentration 45
 - Communication Studies (M.S.) 39
 - Digital Media Track* 39
 - Strategic Public Relations Track* 39
 - Comprehensive Health Fee 26
 - Comprehensive Literacy, Partnerships in 62
 - Comprehensive Requirement 21
 - Computer Engineering (CMPE) Courses 77
 - Computer Labs 31
 - Computer Science (CSC) Courses 77
 - Computer Science Department 40
 - Computer Science (M.S.)* 40
 - Computer Science (M.S.) 40
 - Computing and Network Services 31
 - Computer Labs* 31
 - Help Desk* 31
 - Web Support* 31
 - Conditional or Provisional Admission 12
 - Consumer Information 10
 - Continuing and Distance Education Programs 66
 - Cora I. Grove Spiritual Center 32
 - Costs, Summary of 26
 - Council for Accreditation of Counseling and Related Educational Programs (CACREP) 9, 48
 - Council for Exceptional Children (CEC) 9
 - Council of Trustees 110
 - Council on Social Work Education (CSWE) 9, 57
 - Counseling and College Student Personnel Department 48
 - Accreditation* 48
 - Admission to Candidacy* 49
 - Admission to Program* 48
 - Counseling (M.Ed.)* 50
 - Counseling (M.S.)* 49
 - Licensure in Counseling* 49
 - Mission and Student Learning Goals* 48
 - Programs Offered* 48
 - Counseling (CNS) Courses 79
 - Counseling (M.Ed.) 50
 - Counseling (M.S.) 49
 - Clinical Mental Health Counseling Concentration* 50
 - College Counseling Concentration* 49
 - College Student Personnel Concentration* 50
 - Counseling/Pupil Services 55
 - Counseling Services, University 30
 - Counseling Supervisor 55
 - Course Descriptions 69-108
 - Accounting (ACC)* 70
 - Art & Design (ART)* 70
 - Biology (BIO)* 71
 - Business Administration (MBA)* 74
 - Business (BSN)* 73
 - Chemistry (CHM)* 75
 - Communication/Journalism (COM)* 75
 - Computer Engineering (CMPE)* 77
 - Computer Science (CSC)* 77
 - Counseling (CNS)* 79
 - Criminal Justice (CRJ)* 81
 - Early Childhood/Elementary Education (ECH)* 82
 - Earth Science (ESS)* 83
 - Economics (ECO)* 83
 - Educational Leadership and Policy (ELP)* 86
 - Education (EDU)* 83

- Education of Exceptional Children/Special Education (EEC)* 84
English (ENG) 89
Finance (FIN) 91
French (FRN) 91
Geography (GEO) 92
Gerontology (GRN) 94
History (HIS) 94
Human Communication Studies (HCS) 96
Information Systems Studies (ISS) 96
Management Information Systems (ISM) 98
Management (MGT) 97
Marketing (MKT) 98
Mathematics (MAT) 98
Music (MUS) 100
Philosophy (PHL) 100
Physics (PHY) 100
Political Science (PLS) 100
Psychology (PSY) 101
Reading (RDG) 102
Science Education (SCED) 103
Social Work (SWK) 104
Sociology (SOC) 106
Spanish (SPN) 107
Teacher Education (TCH) 108
- Criminal Justice (CRJ) Courses 81
 Criminal Justice Department 51
 Administration of Justice (M.S.) 51
 Cumulative QPA 16, 19, 20, 21, 27, 29
 Curricula, University 35
 Curriculum and Instruction (M.Ed.) 59
 Early Childhood Cluster 60
 Elementary Education Cluster 60
 Middle School Cluster 60
 Secondary Biology Cluster 60
 Secondary English Cluster 60
 Secondary Geography/Earth Science Cluster 61
 Secondary History Cluster 61
 Secondary Mathematics Cluster 61
 Secondary Modern Languages Cluster 62
- D**
- Deferred grade (Q) 16
 Degree Programs 36
 Delinquent Accounts 26
 Department
 Chairs and Deans 16
 Degree Programs 36
 Offices 116
 Desire2Learn 31
 Digital Media Track 39
- Directions to Campus 9
 Directory 109–116
 Disability Services, Office of 9, 10
 Dishonesty, Academic 22
 Dismissal
 for C Grades 19
 for F Grades 19
 Graduate Assistantships 29
 Distance Education 13, 47, 66
 Dixon University Center 46, 47, 64, 66
 Domicile
 Change of 33
 Definition of 33
 Determination of 33
 Evidence of 33
 Reclassification of 33
 Double Counting 21
 Drug-Free Campus 10
 Dual Graduate Degrees 21
 Dual (K-12) School Counseling (M.Ed. and certification) 50
 Dual-Level (400) Courses 20, 70
- E**
- Early Childhood
 Certification 60
 Cluster 60
 Early Childhood Education Supervisor 55, 56, 62
 Early Childhood/Elementary Education (ECH) Courses 82
 Earning Academic Credits 19
 Earth Science (ESS) Courses 83
 Economics (ECO) Courses 83
 Educational Credential Evaluators (ECE) 13
 Educational Diversity 10
 Educational Leadership and Policy (ELP) Courses 86
 Educational Leadership and Special Education Department 52
 Admission Requirements 52
 Principal Certification Programs 53
 Programs Offered 52
 School Administration (M.Ed.) 52
 Special Education (M.Ed.) 56
 Superintendent's Letter of Eligibility Program 53
 Supervisory I Certification 55
 Educational Records, Access to 10
 Educational Services Fee 26
 Education (EDU) Courses 83
 Education of Exceptional Children/Special Education (EEC) Courses 84
- Electronic Communication Policy 30
 Elementary Education Cluster 60
 Elementary Education/Early Childhood (ECH) Courses 82
 Elementary Education Supervisor 55, 56, 59
 E-mail Accounts 30
 Emerging Leaders, MBA 46
 English (ENG) Courses 89
 Environmental Education Supervisor 55, 56
 Environmental Management Concentration 45
 Equal Opportunity 9
 Essay. *See* Writing Sample
 Examinations 12
 Graduate Management Admission Test (GMAT) 12
 Graduate Record Examination (GRE) 12
 Miller Analogies Test 12
 Extended Studies.
 See Professional, Continuing, and Distance Education Studies
 External Affairs and University Relations 110
- F**
- F-1 student visa 13
 Faculty and Administration 117–126
 Faculty Members 118
 Failing (F) Grade 16, 17, 20, 22, 56
 Family Educational Rights and Privacy Act 10
 Federal Aid 27, 29
 Federal Direct Stafford Loan 29
 Fees 26
 Activities Fee 26
 Application Fee 26
 Bad Check Fee 27
 Comprehensive Health Fee 26
 Educational Services Fee 26
 Graduation Fee 26
 Late Payment Fee 26
 Miller Analogies Test 26
 Parking Fee 27
 Payment of 26
 Semester Fees 26
 Student Union Fee 26
 Technology Tuition Fee 26
 Fee Waiver for Senior Citizens 32
 Finance (FIN) Courses 91
 Financial Aid 29. *See also* Financial Assistance
 Title IV 27
- Financial Assistance 27
 Graduate Assistantships 27
 Loans 29
 Residence Directors 29
 Student Payroll Positions 29
 Foreign Languages Supervisor 55, 56
 Foundation, Shippensburg University 116
 Free Application for Federal Student Aid (FAFSA) 29
 French (FRN) Courses 91
 Full-Time Status 17
- G**
- G.A.. *See* Graduate Assistantships
 Geoenvironmental Studies (M.S.) 40
 Admission Requirements 40
 Geography/Earth Science Department 40
 Geoenvironmental Studies (M.S.) 40
 Geography (GEO) Courses 92
 Geotechniques 41
 Gerontology. *See* Social Work/ Gerontology Department
 Gerontology (GRN) Courses 94
 GIS Lab 41
 GMAT. *See* Graduate Management Admissions Test
 Governing Boards State System of Higher Education 110
 Grade
 Appeals 17
 Change Form 18
 Reduction 22
 Grades
 Issuance of 17
 Other Types of 17
 Grading and Point System 16
 Other Types of Grades 17
 Quality Point Average (QPA) 16
 Temporary Grades 16
 Graduate Admissions, Office of 9
 Graduate Assistantships 27
 Application Procedures 28
 Appointment Process 28
 Benefits 28
 Changing Appointment 28
 Eligibility and Academic Load 27
 Late Appointments 28
 Resignation, Dismissal, or Academic Probation 29
 Tuition Waiver 28
 Work and Compensation 28
 Graduate Certificate of Management Information Systems 47

- Graduate Council 16
- Graduate Dean, Office of 9, 30
- Graduate Degrees 36
Dual 21
- Graduate Management
Admission Test (GMAT) 12, 46, 47
- Graduate Record Examination (GRE) 12
- Graduate Student Association Board 16, 30
- Graduation Fee 26
- Graduation Requirement
Comprehensive Requirement 21
- Graduation Requirements 21
Research Requirement 21
Thesis 21
Time Limit 21
- GRE. *See* Graduate Record Examination
- GSAB. *See* Graduate Student Association Board
- H**
- Health Fee, Comprehensive 26
- Help Desk 31
- Higher Education Structure and Policy Concentration 45
- Historical Administration Concentration 45
- History and Philosophy Department 42
Applied History (M.A.) 42
- History (HIS) Courses 94
- History, University 8
- Hold on Account 13, 19
- HOTLINE 33
- Housing 29
- Human Communication Studies (HCS) Courses 96
- I**
- I-20 13
- I-94 13
- Improper documentation 23
- Incomplete (I) Grade 17
- Independent Study 20
- Individual and Organizational Development Concentration 45
- Individualized Instruction 20
- Information Systems Studies (ISS) Courses 96
- Instructional Certificates 37
- International Association of Counseling Services (IACS) 9
- International Students 13
- Internships 19, 20, 39, 41, 42, 43, 44, 45, 49
- Interview 12, 28, 31
- Issuance of Grades 17
- J**
- John L. Grove College of Business. *See* College of Business, John L. Grove
- Journalism/Communication (COM) Course 75
- K**
- K-12
Dual School Counseling (M.Ed.) 50
Educators Institute 66
School Principal Certification 37, 53
- L**
- Late Payment Fee 26
- Learning Center 31, 32
Learning Specialists 32
Tutoring Services 31
- Learning Disabilities Option 56
- Learning Specialists 32
- Letter Grades 16
- Letters of recommendation 12
- Library and Multi-Media Services 31
Television studio 31
- Licensure in Counseling 49
- Loans 29
- Luhrs Library Media Center 31
- M**
- Management Information Systems
Concentration 45
Graduate Certificate of 47
(ISM) Courses 98
- Management (MGT) Courses 97
- Marine Science Consortium at Wallops Island 38, 41, 60
- Marketing (MKT) Courses 98
- Master of Business Administration. *See* Business Administration (MBA)
- Master of Education Degree 36
- M.A.T. 64. *See also* Science Education (M.A.T.)
- MAT. *See* Miller Analogies Test
- Mathematics (MAT) Courses 98
- Mathematics Supervisor 55, 56
- MBA. *See* Business Administration (MBA)
Full-time 46
Online 46
Part-time 46
- Meal Plans 27
- Medical Withdrawal 20
- Mental Health Counseling Concentration, Clinical 50
- Mental Retardation/Developmental Disabilities Option 56
- Middle School Cluster 60
- Middle States Association of Colleges and Schools 9
- Miller Analogies Test 12, 43, 49, 51, 57, 59
Fee 26
- Minimum Academic Standards 19
- Mission
of the School of Graduate Studies 8
of the University 8
- M.P.A.. *See* Public Administration
- M.S.W. 57. *See* Social Work
- Multicultural Student Center 32
- Multi-Media Services 31
- Music (MUS) Courses 100
- N**
- National Council for Accreditation of Teacher Education (NCATE) 9, 36
- NCATE. *See* National Council for Accreditation of Teacher Education
- N-Grade (no credit) 17
- Non-Credit Programs 66
- Non-Degree Students 12
- Nonimmigrant Alien Students 10
- Notice and Appeal 19
- O**
- ODL. *See* Organizational Development and Leadership
- Office of
Disability Services 9, 10
Graduate Admissions 9
Professional, Continuing, and Distance Education Studies 65
the Graduate Dean 9, 30
the Registrar 9
- Online
Courses 66
Programs
Certificate of Advanced Studies in Business 47
MBA 46
- Organizational Development and Leadership (M.S.) 44. *See also* Sociology/Anthropology Department
Admission Requirements 44
Business Concentration 45
Communications Concentration 45
Environmental Management Concentration 45
Historical Administration Concentration 45
Individual and Organizational Development Concentration 45
Management Information Systems Concentration 45
Public Organizations Concentration 45
Social Structures and Organization Concentration 45
- Out-of-State Student Tuition 26
- P**
- Parking Fee 27
- Part-time Status 28
- Payment of Fees 26
- PCDE. *See* Professional, Continuing, and Distance Education Studies
- Penalties for Academic Dishonesty 22
- Pennsylvania Department of Education (PDE) 36, 37, 49, 53, 55, 62, 63
- Pennsylvania Residency 33
- Pennsylvania Resident Tuition 26
- P-Grade (passed) 17
- Philosophy (PHL) Courses 100
- Physics (PHY) Courses 100
- Plagiarism 23
- Point System 16
- Political Science Department 43
Public Administration (M.P.A.) 43
- Political Science (PLS) Courses 100
- Post-Master's
K-12 School Principal Certification 37
Superintendent's Letter of Eligibility 53
Supervisory of School Guidance 51, 55
Supervisory I Certificate 37, 55
- Practicum 20, 62
- President's Office 110
- Principal Certification Programs 53

- Professional, Continuing, and Distance Education Studies 64, 65, 66
- Proofreader, Use of 23
- Provisional Admission 12
- Psychological Science (M.S.) 43
- Psychology Department 43
Psychological Science (M.S.) 43
- Psychology (PSY) Courses 101
- Public Administration (M.P.A.) 43
- Public Organizations Concentration 45
- Pupil Services Supervisor 55, 56
- Q**
- Q-Grade (deferred) 16
- Quality Point Average (QPA) 16
- R**
- Reading
Courses (RDG) 102
(M.Ed.) 62
Supervisor 55, 56, 62
- Readmission of Dismissed Students 19
- Refunds 27
- Registering for Classes 19
- Registrar, Office of 9
Transcripts 30
- Religious Observances 10
- Repeating Graduate Courses 21
- Research Requirement 21
- Residence Directors 29
- Residency. *See* Domicile
- Right-To-Know 10
- Room and Board 27. *See also* Housing
for Summer Sessions 27
- S**
- Safety, Campus 10
- Satisfying Your Bill 19
- Scheduling Classes
Dual-Level (400) Courses 20
Hold on Account 19
Independent Study 20
Individualized Instruction 20
Internships 20
Registration 19
Repeating Graduate Courses 21
Undergraduate Courses 20
Withdrawal from a Class 20
- School Administration (M.Ed. includes Principal Certification) 52
- School Guidance 55
Supervisor of 51
- School of Academic Programs and Services 112
- School of Graduate Studies
Goals and Objectives 8
Mission 8
- Science Education (M.A.T.) 64
Admission Requirements 64
- Science Education (SCED) Courses 103
- Science Supervisor 39, 55, 56
- Secondary Education
Biology Cluster 60
English Cluster 60
Geography/Earth Science Cluster 61
History Cluster 61
Mathematics Cluster 61
Modern Languages Cluster 62
- Second Master's Degree
Applying for 12
Double Counting 21
- Semester Fees 26
- Semester QPA 16
- Senior Citizens, Fee Waiver 32
- Sexual Harassment 9
- Shippensburg University Foundation 116
- Social Structures and Organization Concentration 45
- Social Studies Supervisor 55, 56
- Social Work and Gerontology Department 57
Social Work (MSW) 57
- Social Work (MSW) 57
Accreditation 57
Admission Guidelines 57
Degree Requirements 58
Evaluation of Students 58
- Social Work (SWK) Courses 104
- Sociology/Anthropology Department 44
Organizational Development and Leadership (M.S.) 44
- Sociology (SOC) Courses 106
- Spanish (SPN) Courses 107
- Special Admission 13
- Special Education
Courses (EEC) 84
M.Ed. 56
Behavioral Disorders 57
Certification 56
Learning Disabilities 56
Mental Retardation/Developmental Disabilities 56
Supervisor 55, 56, 57
- Special Fees 26
- Special Grades 16
- Speech. *See* Human Communication Studies
- Spiritual Center, Cora I. Grove 32
- SPP. *See* Student Payroll Positions
- Statements of Compliance 9
- State System of Higher Education 8, 9, 26, 27, 33
Board of Governors 110
- Strategic Public Relations Track 39
- Student Affairs 113
- Student Code of Conduct 22
- Student Matters 25–35
- Student Payroll Positions 29
- Student Services 30
- Student Union Fee 26
- Study Abroad 66
- Summer Sessions Room and Board 27
- Superintendent's Letter of Eligibility 37, 53
- Supervisory I Certificate 37, 55
Requirements 55
- T**
- Teacher Certification 37
- Teacher Education Council 37
- Teacher Education Department 59
Admission to Programs 59
Curriculum and Instruction (M.Ed.) 59
Programs Offered 59
Reading (M.Ed.) 62
- Technology and Library Services 111
- Technology Tuition Fee 26
- Television studio 31
- Temporary Grades 16
- Thesis 21, 38, 41, 43, 52
- Time
Definition 16
Limit 21
- Title IV 27
- Title IX 9
- TOEFL 13, 40
- Transcripts 30
- Transfer Credit 21
- Transfer Students 13
- Travel Times 9
- TR-Grade (Transfer Credit) 17
- Tuition 26. *See also* Fees
Out-of-State 26
Pennsylvania Resident 26
Waiver 28
- Tutoring Services 31
- U**
- Undergraduate Courses 20
- University
Administration 118
Counseling Center 30
Curricula 35
History 8
Mission 8
Store 32
- V**
- Veteran's Benefits 10, 29
- W**
- Waiver, Tuition 28
- Weather Conditions 33
- Web Support 31
- W-Grade (withdrawal). *See also* Withdrawal from a Class
- Withdrawal from a Class 20
- Women's Center 32
- World Education Services (WES) 13
- Writing Sample (Essay) 12, 39, 43, 46

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