

Academic Calendar 2002-2003

Fall Semester 2002

New faculty orientation	Mon-Tue	Aug 19-20
Faculty meetings	Wed	Aug 21
New students arrive	Thu	Aug 22
Academic orientation day	Fri	Aug 23
New student orientation	Sat-Sun	Aug 24-25
Regular class schedule begins	Mon	Aug 26
Labor Day, University closed	Mon	Sep 2
Fall break begins 4 pm	Fri	Oct 4
Classes resume 8 am	Wed	Oct 9
Thanksgiving break begins 8 am	Wed	Nov 27
Classes resume 1 am	Mon	Dec 2
Last day of classes	Fri	Dec 6
Final exams	Mon-Fri	Dec 9-13
Commencement	Sat	Dec 14

Note: One Monday class will be made up at the discretion of the faculty

Spring Semester 2003

New students arrive	Sat	Jan 18
New student orientation	Sat-Sun	Jan 18-19
MLK day, no classes	Mon	Jan 20
Regular class schedule begins	Tue	Jan 21
Spring break begins	Sat	Mar 8
Classes resume 8 am	Mon	Mar 17
Last day of classes	Fri	May 2
Final exams	Mon-Fri	May 5-9
Commencement	Sat	May 10

Summer Term 3, 2003

Session opens	Mon	May 19
Memorial Day, university closed	Mon	May 26
Make-up day for holiday	Sat	May 31
Session ends	Fri	Jun 6

Summer Term 4, 2003

Session opens	Mon	Jun 9
Make-up day for July 4	Fri	Jun 27
Independence Day, university closed	Fri	Jul 4
Session ends	Thu	Jul 10

Summer Term 5, 2003

Session opens	Mon	Jul 14
Session ends	Thu	Aug 14

Academic Calendar 2003-2004

Fall Semester 2003

New faculty orientation	Mon-Tue	Aug 18-19
Faculty meetings	Wed	Aug 20
New students arrive	Thu	Aug 21
Academic orientation day	Fri	Aug 22
New student orientation	Sat-Sun	Aug 23-24
Regular class schedule begins	Mon	Aug 25
Labor Day, University closed	Mon	Sep 1
Fall break begins 4 pm	Fri	Oct 3
Classes resume 8 am	Wed	Oct 8
Thanksgiving break begins 8 am	Wed	Nov 26
Classes resume 1 am	Mon	Dec 1
Last day of classes	Fri	Dec 5
Final exams	Mon-Fri	Dec 8-12
Commencement	Sat	Dec 13

Note: One Monday class will be made up at the discretion of the faculty

Spring Semester 2004

New students arrive	Sat	Jan 17
New student orientation	Sat-Sun	Jan 17-18
MLK day, no classes	Mon	Jan 19
Regular class schedule begins	Tue	Jan 20
Spring break begins	Sat	Mar 6
Classes resume 8 am	Mon	Mar 15
Last day of classes	Fri	Apr 30
Final exams	Mon-Fri	May 3-7
Commencement	Sat	May 9

Summer Term 3, 2004

Session opens	Mon	May 17
Make-up day for Memorial Day	Sat	May 22
Memorial Day, university closed	Mon	May 31
Session ends	Fri	Jun 4

Summer Term 4, 2004

Session opens	Mon	Jun 7
Make-up day for July 4	Fri	Jun 25
Independence Day, university closed	Mon	Jul 5
Session ends	Thu	Jul 8

Summer Term 5, 2004

Session opens	Mon	Jul 12
Session ends	Thu	Aug 12

Table of Contents

Calendars

Academic Calendars for 2002-2003 and 2003-2004	3-4
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Introduction

Mission of the University	10
Mission of the School of Graduate Studies	10
Brief History, Accreditation, the Campus	11
Office of the Graduate Dean	11
Office of Graduate Admissions	11
Office of the Registrar	11
Travel Times, Directions and Map	12
Statements of Compliance	13-14
Equal Opportunity	13
Sexual Harassment	13
People with Disabilities	13
Access to Educational Records	13
Drug-Free Campus	13
Campus Safety	13
Right-to-Know	13
Consumerism	14
Veteran's Benefits	14
Nonimmigrant Alien Students	14
.....	14

Admissions Policies and Procedures

Graduate Degree Programs	16-17
Admission Policies	16
Admission Procedures	16
Examinations	17
Miller Analogies Test	17
Graduate Record Examination	17
Graduate Management Admission Test	17
Provisional Admission	17
Other Admission Categories	17-19
Non-Degree Students	17
International Students	18
Transfer Students	18
Special Admission	18

Academic Policies and Procedures

Applicable Policies	20
Time Definition	20
Graduate Council	20
Department Chairs and Deans	20
Grading and Point System	21-22
Quality Point Average (QPA)	21
Temporary Grades	21
Other Types of Grades	22
Academic Progress and Standing	22-24
Full-Time Status	22
Issuance of Grades	22
Grade Appeals	22
Minimum Academic Standards	23
Dismissal for Grades	23

Shippensburg University

Notice and Appeal	24
Readmission of Dismissed Students	24
Earning Academic Credits	24-26
Scheduling Classes	24
Dual-Level (400) Courses	24
Undergraduate Courses	24
Withdrawal from a Class	24
Independent Study	25
Individualized Instruction	25
Internships	26
Repeating Graduate Courses	26
Transfer Credit	26
Graduation Requirements	26-27
Time Limit	27
Advisement	27
Admission to Candidacy	27
Research Requirement	27
Comprehensive Requirement	27
Double Counting	27
Thesis	27
Academic Dishonesty	28
Definition	28
Plagiarism	28
Resolution of Charges	28
Penalties	28
Student Matters	
Tuition and Fees	30-32
Summary of Costs	30
Payment of Fees	30
Delinquent Accounts	30
Tuition, Pennsylvania Residents and Out-of-State Students	30
Semester Fees	31
Student Union Fee	31
Educational Services Fee	31
Health Services Fee	31
Activities Fee	31
Special Fees	31-32
Application Fee	31
Late Registration Fee	31
Graduation Fee	31
Miller Analogies Test Fee	31
Parking Fee	32
Bad Check Fee	32
Room and Board	32
Meal Plans	32
Summer Sessions Room and Board	32
Refunds	32
Financial Assistance	33-35
Graduate Assistantships	33
Eligibility	33
Application Procedures	33
Appointment Process	33
Tuition Waiver	34
Academic Load	34
Work and Compensation	34
Employee Benefits	34

Table of Contents

Late Appointments	34
Changing Appointment	34
Resignation or Dismissal	34
Residence Directors	35
Loans	35
Veteran's Benefits	35
Student Services	36-39
Office of the Graduate Dean	36
Registrar's Office/Transcripts	36
Counseling Services	36
Career Development Center	37
Women's Center	37
Multicultural Student Center	37
Child Care	37
University Store	37
Library	38
Computing and Network Services	38
Graduate Student Association Board	39
Other Information	39-40
Commencement	39
Fee Waiver for Senior Citizens	39
Pennsylvania Residency	39
Determination of Domicile	39-40
Evidence	40
Procedures for Reclassification	40
Change of Domicile	40
Weather Conditions	40
 University Curricula	
Graduate Degrees	42
Departments and Degree Programs	42
Master of Education Degree	42-44
General Guidelines	43
Professional Education Courses	43
Teacher Certification	44
Instructional Certificates	44
Elementary and Secondary School Principals	44
Supervisory I Certificate	44
Superintendent's Letter of Eligibility	44
Responsibility	44
College of Arts and Science	45-56
Biology Department	45-46
Communication/Journalism Department	46-48
Computer Science Department	49-51
Geography/Earth Science Department	52-53
History and Philosophy Department	53-54
Political Science Department	54-55
Psychology Department	55-56
John L. Grove College of Business	56-57
College of Education and Human Services	57-86
Counseling Department	57-64
Criminal Justice Department	65-66
Educational Administration/Foundations Department	66-75
Social Work and Gerontology Department	75-78
Teacher Education Department	78-86

Shippensburg University

Courses of Instruction

Accounting ACC	88
Art ART	89
Biology BIO	89-93
Business Administration MBA	94
Business Information Systems BIS	94-95
Chemistry CHM	95
Communication COM	95-97
Computer Science CPS	97-99
Counseling CNS	100-103
Criminal Justice CRJ	103-104
Decision Sciences DSI	104
Early Childhood Education ECH	105
Earth Science ESS	107
Economics ECN	107
Education EDU	107-108
Educational Administration EDA	108-112
English ENG	112-114
Finance FIN	114
French FRG	115
Geography GEO	115-119
Gerontology GRN	119-120
History HIS	120-123
Management MGT	123-124
Management Information Systems MIS	124-125
Marketing MKT	125
Mathematics MAT	125-128
Music MUS	128
Philosophy PHL	128
Physics PHY	128-129
Political Science PLS	129-131
Psychology PSY	131-133
Reading RDG	133-134
Social Work SWK	135
Sociology SOC	135
Spanish SPN	135
Special Education—Education of Exceptional Children EEC	136-138
Speech SPE	138
Teacher Education TCH	138-140

Directory

State System of Higher Education Board of Governors	142
Shippensburg University Council of Trustees	142
Administrative Offices and Associates	143-144
Location of Offices	144

Faculty

Administration	146
Faculty Members	146-154

Index

Index	156-160
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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 offers master's degree and post-master's certificate programs in the Colleges of Arts and Sciences, Business, and Education and Human Services. In contrast with its broad range of undergraduate programs, the university offers graduate programs within a more limited range of fields. These fields are determined by the educational needs of the citizens of this region and the university's faculty expertise and academic resources. These graduate programs typically provide advanced study to allow students entrance into or advancement within a profession, but they may also be a stepping stone for pursuit of a doctorate or some other advanced degree.

While the purpose and focus of each of the graduate programs vary according to the intended educational outcomes, all graduate programs stress a high degree of interaction between and among students and faculty and a focus on one field of study. They emphasize the independence of the learner and provide opportunities for independent and collaborative scholarship. All of them expect their graduates to function effectively as professionals within their chosen fields.

The university's expectation is that its faculty who teach graduate courses will have advanced terminal degrees in their fields and will be actively engaged as scholars and professionals. This engagement can include applied or theoretical scholarly research as well as professionally relevant service to the citizens of this region. The university expects its faculty who teach graduate courses to exemplify the professional autonomy, integrity, and engagement with the field that it also expects of those who successfully complete its graduate programs.

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; the AACSB, International Association for Management Education; the American Chemical Society; the Council on Social Work Education; the Council for the Accreditation of Counseling and Related Educational Programs; the International Association of Counseling Services; and by the National Council for the Accreditation of Teachers (NCATE).

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.

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 AM to 4:30 PM Monday through Friday during the academic year. Summer hours are 8 AM to 4 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. To contact the office, call (717) 477-1381 or e-mail at gradsch@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 the same as above. To contact the office call (717) 477-1381.

Shippensburg University

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

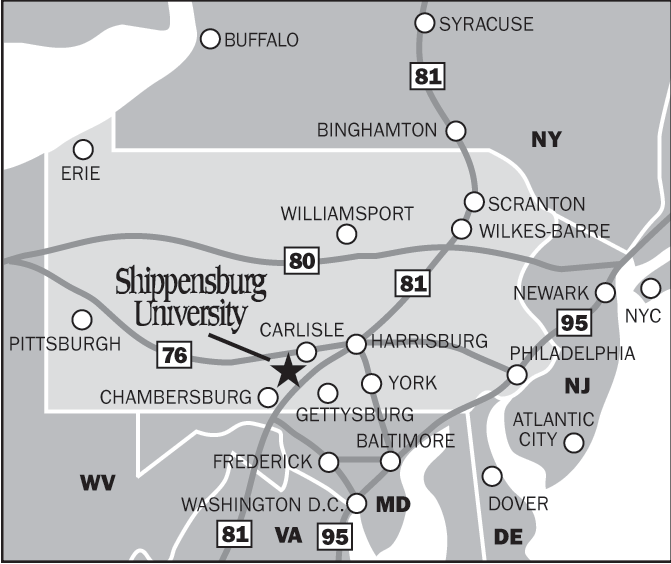
If your point of departure is ...

East of Shippensburg: Use Pennsylvania Turnpike Exit 16 (Carlisle) to I-81 south. Take I-81 to Exit 29.

West of Shippensburg: Use Pennsylvania Turnpike Exit 15 (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 disabled accommodation. Any questions or complaints should be directed to the 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* and Title IX of the *Education Amendments of 1972*, and the Americans with Disabilities Act of 1990, Shippensburg University provides equal educational, employment, and economic opportunities for all persons without regard to race, color, religion, national origin, age, sex or disability. This policy extends to disabled veterans and veterans of the Vietnam era.

Sexual Harassment

Shippensburg University prohibits behaviors which inappropriately assert sexuality in the work or learning environment. Such behaviors are prohibited by federal regulations, which state that unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature can constitute sexual harassment. Shippensburg University is committed to civil rights and will promptly investigate allegations of sexual harassment and take appropriate corrective action.

People with Disabilities

Shippensburg University in compliance with *Section 504 of the Rehabilitation Act of 1973* and the Americans with Disabilities Act of 1990, makes every effort to ensure that reasonable accommodations are made to meet the needs of individuals with disabilities.

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, and e-mail address, as well as verification of dates of enrollment and degrees awarded. 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.



The current diversity policy can be found <http://www.ship.edu/about/diversity.html>

Catalog Provisions

This catalog is intended to be a description of the policies, academic programs, degree requirements, and course offerings in effect for the 2002/2003 and 2003/2004 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 anytime.

Graduate Degree Programs

To take courses towards a graduate degree, a student must be formally admitted to that graduate degree program.

Admission Policies

The following policy governs 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 quality point average of at least 2.75 as determined by a grading system in which A equals 4.0 quality points. If you have less than a 2.75 undergraduate quality 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. If you are applying for a program in a field which 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 towards 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 Admissions. You will be officially notified of a decision by the Office of Graduate Admissions.

An offer of admission to graduate studies requires you to matriculate and begin academic studies at Shippensburg University within one year of the semester for which you have been admitted. If you do not matriculate by enrolling in graduate course work at Shippensburg within one year, you must submit a new application and pay an additional application fee.

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 for admission. No additional application fee is required.

Admission Procedures

Applicants for admission to Shippensburg University should write, e-mail admiss@ship.edu, or call 717-477-1213 or toll free 800-822-8028 the Office of Graduate Admissions and request an application. Applicants may also visit our web site at www.ship.edu to apply online.

Applications are accepted for the fall or spring semesters or the summer terms. Complete and submit the application together with a non-refundable fee of \$30 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 work. 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. The special education, reading, and curriculum and instruction programs have review deadlines. Application files must be complete and ready for depart-

mental review by February 1 for summer admission, June 1 for fall admission, and October 1 for spring admission. Please refer to the those individual departmental descriptions for more specific information.

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.

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 the Psychological Corporation of San Antonio, Texas. Information regarding the test and the testing dates is available in the Office of Graduate Admissions. The fee for anyone who takes this test at Shippensburg University is \$45 (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 Graduate Record Examination subject test only for the Educational Testing Service of Princeton, New Jersey. Applications and information on the GRE are available in the Office of Graduate Admissions.

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 Graduate Admissions and on the web at www.MBA.com.

Provisional Admission

Occasionally an applicant will present an undergraduate academic record and standardized test scores which 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 the applicant be admitted to the graduate degree program on a provisional basis.



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.

Students with provisional status are not eligible for appointment as graduate assistants.

Other Admission Categories

Non-Degree Students

If you are a college graduate not planning to enroll in a degree program, you may register as a non-degree graduate student. You must complete the graduate non-degree application form in order to register.

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 their 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. In addition, academic departments at their discretion may approve a maximum of nine

Shippensburg University

credit hours of course work (with grades of "B" or higher) taken in non-degree status to count toward the master's degree.

International Students

Students from outside the United States who do not hold immigrant or permanent residence visas may apply for admission to graduate degree programs as international students. Applications for admission must include an authorized certified copy of undergraduate course work, including an authorized certified translation if the record is not in English. This record must show the completion of the equivalent of a four-year baccalaureate degree in order for the student to be admitted.

International students who have English as a second language must present a TOEFL score of at least 220 (based upon the new computer-based test). Communication studies and computer science majors must present a minimum TOEFL score of 237.

Immigration regulations require an affidavit of support and a bank statement if the support is not furnished by an official governmental or international agency.

All material, including application form and fee, official TOEFL score report from the Educational Testing Service, certified copies of all academic credentials in the original language and English translation, affidavit of support, and current bank statement, should be submitted to the Office of Graduate Admissions.

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. The Master of Business Administration (MBA) and the Master of Science in Information Systems (MSIS) are part-time programs. Therefore F-1 visa holders are not eligible for these degree programs.

International students who are admitted to degree programs will be issued an I-20 form by the Office of International Student Services in order to obtain an F-1 student visa.

Upon arrival on campus, students holding F-1 or J-1 visas should report to the Director of International Student Services, Old Main 210, and bring with them their passport and any immigration forms.

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.

Transfer credit evaluation is done by the academic department of the graduate degree program to which you are applying. Additional documentation (such as catalog course descriptions) may be required to complete the evaluation.

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 admissions. No application fee is required and an undergraduate transcript does not have to be submitted.

This category of admissions 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.

Introduction

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 studies. 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 which 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 2002/2003 and 2003/2004 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 of the 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

<i>A</i>	Excellent
<i>A-</i>	
<i>B+</i>	
<i>B</i>	Good
<i>B-</i>	
<i>C</i>	Fair
<i>F</i>	Failure

Special Grades

<i>I</i>	Incomplete
<i>Q</i>	Deferred grade
<i>P</i>	Passed
<i>TR</i>	Transfer Credit
<i>N</i>	Audit (no credit)
<i>W</i>	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:

<i>A</i>	4.0 quality points
<i>A-</i>	3.7 quality points
<i>B+</i>	3.3 quality points
<i>B</i>	3.0 quality points
<i>B-</i>	2.7 quality points
<i>C</i>	2.0 quality points
<i>F</i>	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, if you receive a grade of B (3 points) in a 3 credit course you have 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 which 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 internship which 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 end 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 instructor of the course. 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 web site or mailed to you at your legal or permanent address.

Grade Appeals

If you believe a final course grade has been awarded incorrectly or arbitrarily, you should first consult informally with the faculty member. If the faculty member decides the assigned grade was correct, you may then initiate a formal grade appeal.

Each department has an Academic Appeals Committee, which gives students a procedure to appeal final grades. Membership consists of a minimum of three faculty members in the department and an equal number of graduate students who are majors in the department. A faculty member and a student serve as co-chairs.

The following steps must be followed in the appeals procedure:

- 1) First consult on an informal basis with the faculty member who gave the final grade. If the faculty member is not available, contact the department chair. Faculty are permitted 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. If you do not receive satisfactory results, you may continue the appeals procedure.

2) Formal grade appeals are heard by the Academic Appeals Committee of the department in which you were awarded the grade. A written appeal stating the reasons why you believe the grade was awarded incorrectly should be submitted to the department chair no later than 30 calendar days after the beginning of the semester following the awarding of the grade. The summer term does not constitute a semester. If the grade in question has an impact on your academic standing or your ability to graduate, you may request that the appeal be heard during the summer.

3) Following submission of the appeal, the chair will send a copy to the faculty member. The faculty member must respond to the chair in writing. The department committee will then schedule a hearing at a time convenient for all parties. The student and the faculty member will be invited to attend the hearing and present any relevant information about the awarding of the grade. The committee has the power to decide the case by simple majority vote. A tie vote upholds the faculty member's decision. The final decision ordinarily should occur before the end of the semester in which the appeal was filed.

If the committee finds in your favor, a grade change form will be sent to the Registrar's Office after being signed by the department chair. With the exception of the grade, no part of this procedure will become part of your official academic record. In addition, no part of this procedure will become part of the faculty member's record or file.

You may appeal an adverse decision of the committee to the president of the university. This appeal must be made in writing within 14 days after you are notified of the decision. The president will consult with the Graduate Council before making a decision.

Any grade appeal or grade change request initiated on the basis of alleged academic dishonesty (as determined by the department chair) will be handled under the procedures in the *Academic Dishonesty* section later in this chapter.



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 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.

Dismissal for "C" Grades

You may earn only one "C" grade in any graduate course taken at Shippensburg University. This includes any courses which 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.

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 which 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.

Scheduling Classes

The normal semester hour work load 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 will receive a scheduling packet in the mail for the coming semester. You may then schedule classes either by mail or by coming to the Registrar's Office. All scheduling and billing materials must be presented in order to complete the scheduling process. If you schedule after the deadline announced in the scheduling packet, you will be subject to a late registration fee.

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 which placed the hold before you will be allowed to schedule.

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.

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 your graduate transcript along with the grades earned. The credits earned will not be counted towards the master's degree and the grades are not used in calculating your 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 and will be the end of the first week of the semester (for classes which meet more than once a week) or the day of the second class meeting (for classes which meet once a week).

You may withdraw from a class through the eighth week of the semester. Requests for withdrawals 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 ninth week of the semester you will receive an "F" grade.

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. 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 which 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 which 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 adviser, 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 those programs which 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, personality factors, and other relevant issues in addition to course grades.

Repeating Graduate Courses

You may not repeat a graduate course in which you received a grade of "B-" or better. You may repeat a course in which you received a "C" grade, with the permission of your academic department.

If you have been dismissed because you received an "F" and are readmitted, you may only repeat that failed course if the academic



department grants permission. If you repeat a course, only the most recent grade will be used in calculating your cumulative QPA. You are limited to two repeat courses during a graduate degree program.

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, you must receive prior approval from your adviser 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 graduate transcript with grades of "B" or higher.

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, and the completion of any comprehensive requirement (including thesis).

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

Academic Policies and Procedures



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 adviser. It is your responsibility to arrange an appointment with the program adviser 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 adviser will assist you in planning your program, you are responsible for knowing the curriculum requirements and for 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 which demonstrates mastery of subject area.

Double Counting

The concept of "double counting" credits to 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.

Thesis

Before registering for thesis you should confer with the department chair concerning the appointment of your research adviser and the other members of your thesis committee. The names of the adviser 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.

Shippensburg University

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

Academic Dishonesty

It is the policy of Shippensburg University to forbid academic dishonesty. 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.

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 own 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 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.

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 whenever possible. If an informal resolution cannot be achieved, a formal process of deciding culpability and assessing sanctions will be followed.

Penalties

Penalties for academic dishonesty may include grade reduction, imposition of a failing grade, suspension or expulsion from graduate study at the university.

The graduate school policy on plagiarism is stringent. First offenders may be penalized with an "F" grade in the course in which the plagiarism occurs or by suspension from the degree program. If a second offense occurs, the student shall be suspended from graduate studies at Shippensburg University.

Shippensburg University

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 semester costs for a full-time graduate student who is a Pennsylvania resident (current through 2001-02 academic year).

Graduate Tuition	\$2,300
Student Union Fee	\$102
Educational Services Fee	\$200
Health Services Fee	\$72
Total	\$2,674

Payment of Fees

Fees are payable in advance as indicated below. Payment by check or money order is preferred. Unless otherwise indicated, all checks shall be made payable to Shippensburg University. *Do not send cash by mail.*

Semester	Payments Due
First	August 2
Second	December 18

The above dates are subject to change.

Delinquent Accounts

If you do not settle your accounts with the university, you will not be permitted to enroll for classes, graduate, or receive a transcript. Accounts delinquent for 90 days are turned over to the Pennsylvania Attorney General for collection.

Tuition for Pennsylvania Residents

A basic fee of \$2,300 will be charged to full-time graduate students who are Pennsylvania residents. A full-time student may take between 9 and 15 credit hours per semester (total graduate and undergraduate courses). Students taking more than 15 credit hours must pay an additional per credit fee.

Part-time students (less than 9 credit hours) pay a fee of \$256 per graduate credit hour. Students taking undergraduate courses (not for graduate credit) pay a fee of \$167 per undergraduate credit hour.

Tuition for Out-of-State Students

Full-time graduate students whose legal residence is not in the state of Pennsylvania pay a basic fee of \$3,777. A full-time student may take between 9 and 15 credit hours per semester (total graduate and undergraduate courses). Students taking more than 15 credit hours must pay an additional per credit fee.

Part-time students (less than 9 credit hours) pay a fee of \$420 per graduate credit hour. Students taking undergraduate courses (not for graduate credit) pay a fee of \$418 per undergraduate credit hour.

NOTE: The above fees are valid only through the summer of 2002.



Semester Fees

All fees are subject to change without notice.

Student Union Fee

State law and policies of the Board of Governors of the State System of Higher Education require the cost of constructing the original Cumberland 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		
Over 8 credit hours		\$102
7 to 8 credit hours		\$76
1 to 6 credit hours		\$51
Summer Sessions		
All students		\$8 per credit hour

The Student Union Fee is refundable according to 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		
Over 8 credit hours		\$200
Part-time		\$22 per credit hour
Summer Sessions		
All students		\$22 per credit hour

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

Health Services Fee

Full-time graduate students must pay a Health Services Fee of \$72 per semester. Part-time students (less than 9 credit hours) do not pay this fee.

During the summer sessions, all graduate students must pay a health services fee for each term they are registered. This fee is \$4 per credit hour.

Activities Fee

During the regular semester, the graduate activities ticket is optional. You may purchase a ticket for each semester from the Student Association fiscal office at a cost of \$7.50. You will be admitted to all events in Memorial Auditorium, Heiges Field House, and the athletic fields except for those special events which require an additional charge. When an additional charge is established for special events, you may, upon presentation of your activities ticket, purchase a ticket at the price established for all students.

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 \$5 per credit hour.

Special Fees

All fees are subject to change without notice.

Application Fee

A fee of \$30 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.

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

Late Registration Fee

If you submit your materials for payment after the officially announced deadlines, you will be subject to a late registration fee of \$25.

Graduation Fee

A fee of \$25 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 \$45 is required of all persons who take the Miller Analogies Test.

Shippensburg University

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. The cost for student parking decals:

- \$20 for the academic year
- \$5 for the summer only
- \$2 for additional vehicles

Bad Check Fee

A fee of \$15 may be charged for each check that is not honored by the payee's bank.

Room and Board

Campus housing is not available for graduate students during the regular semester. 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 2001-2002 cost for these plans are: 19 meals a week, \$1,064; 15 meals, \$950; 10 meals, \$752; and 5 meals, \$550. Meal plans are also available during the summer sessions. Meal plan rates are subject to change. For more information contact the Student Affairs Office at 477-1308.

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 2002 summer sessions:

Double occupancy — \$426 for 3 weeks, \$710 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 will determine the amount of refund or credit to be granted in the event of withdrawal:

0-1 Class Days	100%
1st Week	90%
2nd Week	80%
3rd Week	70%
4th Week	60%
5th Week	50%
Over 5 weeks	0%

During the summer sessions the following schedule will determine the amount of refund or credit to be granted in the event of withdrawal:

	3 weeks	5 or 6 weeks
0-1 Class Days	100%	100%
1st Week	90%	90%
2nd Week	25%	50%
3rd Week	0	25%
4th Week	0	0

The refund schedules assume that the student account is paid in full and that the percentages are not being applied to a partial payment of tuition. The application fee is not refundable.

If a student is a recipient of Federal Title IV financial aid, 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) Federal SEOG

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

Information concerning the detailed application of the refund policy can be obtained by contacting the Student Accounts Office at 477-1211.

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

Financial Assistance

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

Graduate Assistantships

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

Graduate assistant appointments are awarded on a competitive basis without regard to financial need. They provide a tuition waiver as well as compensation for work performed.

Eligibility

To be eligible to receive a graduate assistant appointment, you must be admitted into a graduate degree program. Non-degree students, or those working towards certification without a degree, are not eligible.

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.

You 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 which 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 with the approval of the Dean of Graduate Studies.

Application Procedures

Apply online at <http://www.ship.edu> and navigate to "Graduate Assistantships" before March 1 for the summer and fall terms.

Applications will be accepted after the deadline, and 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* section).

Appointment Process

Lists of available graduate assistantships are available online. You may wish to contact some of these departments directly to express interest in their positions. You should also work with your academic department to identify potential positions.

Departments that hire graduate assistants will review the applications that have been submitted and consult with academic departments to identify candidates. They may contact you and conduct an interview before making a final decision. If you are selected, the department will make a verbal offer and ask for your acceptance before making the formal recommendation for appointment.

After the appointment is submitted online by the department, the Office of the Graduate Dean will verify your eligibility and then send an official letter of appointment. You will then be required to sign a memorandum of understanding and return it to the Office of the Graduate Dean. If you have not worked for the university before, you will need to fill out appropriate payroll forms.



Tuition Waiver

When an appointment is formally made, the Student Accounts Office will be notified and instructed to process a tuition waiver or a refund if you have already paid tuition. Graduate assistants are responsible for all fees, including late registration, health services, educational services, student union, and graduation.

Academic Load

During the academic year, all graduate assistants must register for and complete nine credit hours of graduate course work each semester. During the summer sessions, all graduate assistants must register for and complete a total of six credit hours of graduate course work during any of the summer sessions.

Students in a degree and certification program must complete at least six credit hours of graduate course work each semester in order to be eligible for an assistantship.

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, graduate assistants are required to work 250 hours (approximately 15 hours per week). During the summer, graduate assistants are required to work 150 hours.

Graduate assistants must work at least 90% 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: 80% - 89% hours worked, 10% of tuition repaid; 70% - 79% hours, 20% tuition; 60% - 69% hours, 30% tuition; 50% - 59% hours, 40% tuition; less than 50% hours worked, 50% of tuition.

Employee Benefits

With the exception of the tuition waiver and compensation for work performed (including social security and workmen's compensation payments), graduate assistants do **not** receive any of the benefits provided to regular university employees. Graduate assistants do not receive health benefits, sick leave, or any paid holidays or vacations, and 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, you will receive the full tuition waiver as long as you 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%; third week, 80%; fourth week, 70%; fifth week, 60%; sixth week, 50%.

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% 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 you would like to resign from one assistant position in order to accept a different one, you must have written permission from the department you originally accepted. If the department chooses not to give this permission, you may not accept the other appointment. You may not circumvent this requirement by resigning from one position and then accepting another appointment.

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

Resignation or Dismissal

Graduate assistants may resign from their positions during the course of a semester. Any hours worked prior to resignation must be recorded on the student payroll and paid to the student.

Students who resign will have their 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% (50/250) of the tuition will be waived. The student will then be billed for the remaining 80%.

Students who withdraw from classes and no longer meet the academic load requirements

will be dismissed from their assistantships. Compensation and tuition waiver policies are the same as those for a resignation.

At the discretion of the department chair or other authorized individual, a graduate assistant may be dismissed from his or her position. The chair must notify the student 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.

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 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, as well as 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 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 Stafford Loan application (available in the Financial Aid office).

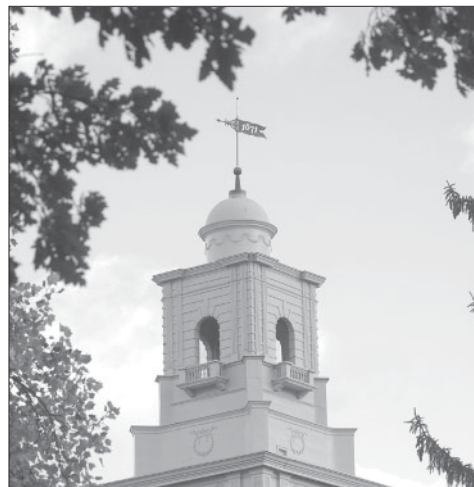
There are two types of Stafford Loans: subsidized and unsubsidized. The subsidized loan is interest-free while the student is in school. The student is charged interest on the unsubsidized loan while in school, and may opt to pay it as it accrues, or allow it to accrue and capitalize. Eligibility for 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 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 Revenue Accounting Office with the registration form.

Students interested in additional information may contact the Office of Financial Aid.

Veteran's Benefits

The university is approved for training veterans under the G.I. Bill as administered by the Veterans Administration. For further information, contact the Veterans Affairs Office (Financial Aid Office) in Old Main.



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 AM to 4:30 PM Monday through Friday during the academic year. To contact the office call (717) 477-1148.

Registrar's Office/Transcripts

You may request copies of your Shippensburg University transcripts in three ways. 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.

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 www.ship.edu/admin/registrar/forms.html. Include the following information:

- full name and social security number – include all previous last names, if any
- dates of attendance
- graduation date and degree received
- specify whether graduate, undergraduate, 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** (*requests received via e-mail 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 a valid photo identification request form.

Generally allow one week for processing transcripts 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. Unofficial transcripts are also sent after individual students have had a grade change made to their academic records.

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.

Counseling Services

A comprehensive program of counseling/psychological services is available at no cost to all students in attendance at the university. Counseling is intended not only to provide help for students with clearly identified concerns, but also to facilitate individual growth and development to supplement the process of education. Services provided include: (1) short-term individual, couples, and group counseling/therapy; (2) crisis intervention, including after-hours crisis coverage; (3) career exploration including vocational and interest inventories; (4) outreach programming to residence halls and other student services as well as academic areas; (5) part-time (one full day per week) psychiatric services for diagnostic assessment and limited medication management; (6) referral to off-campus mental health and other resources when appropriate; (7) consultation to those concerned about others. All services are confidential as dictated by state law and documentation of services do not become part of the student's academic records.

The existence of a professionally staffed Counseling Center is one tangible indication of the university's concern for the holistic development of its students. The University Counseling Center is fully accredited by the International Association of Counseling Services, Inc. The UCC is located on the first floor of Wright Hall and is open Monday through Friday, 8:30 AM to 5 PM, when classes are in session. Call 717-477-1481 for more information.

Career Development Center

The Career Development Center (CDC), located on the second floor of the Cumberland 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 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 on the third floor of the Cumberland Union Building.

Keeping with the CDC's commitment to meeting 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.

Women's Center

The Women's Center (located in Horton Hall) provides a wide variety of opportunities and support services for students. The center sponsors programs, support groups, activities, and speakers, in addition to providing a peer referral service, meeting room space, a library, and information about campus and community events. An attractive lounge area provides a relaxing place for students to gather for conversation, study, or just to get away from it all. Visit its web page at <http://www.ship.edu/~wmscentr/>

Multicultural Student Center (msc)

The Multicultural Student Center (located in Gilbert Hall 200), is a student-centered office that assists groups such as the African-American Organization, Minority Affairs A.P.B., the Latino Student Organization, Cultural Difference Committee, and others with program development and implementation. The office serves as a focal point and a resource for faculty, students, and others. MSC also serves as a liaison with areas such as financial aid, residence life, career development, as well as academic departments. The office strives to expose students to individuals and experiences that will enhance their

awareness of self and culture. It works to improve the quality of life for all students enrolled at the university.

Child Care

The university offers child care through the Learning and Day Care Center on the Shippensburg University campus. Located in McCune Hall at the edge of campus, the facilities are designed for children. The facility offers structured activities designed and led by state certified teachers as well as plenty of free play supervised by caring, fully-trained assistant teachers and aides. Programs are tailored to four age ranges and children are encouraged to participate at their own level without pressure to conform to some predetermined pattern. Age ranges are: toddlers (18-36 months), pre-schoolers, kindergarten, and grade school children. Students enrolled at Shippensburg University are eligible to make use of the child care facility.

University Store

The University Store is operated by the Student Association and is located on the ground floor of the Cumberland Union Building.

The store provides textbooks, trade books, school supplies, gift items, imprinted clothing, greeting cards, and special services such as faxing, check cashing, book buy back, photo developing, and the sale of computer software at a discounted price. The store is open Monday through Thursday, 7:45 AM to 7 PM; Friday, 7:45 AM to 4:30 PM; and 10 AM to 3 PM on Saturday during the school year. For additional information, call (717) 477-1600.



Shippensburg University

Ezra Lehman Memorial Library

The primary role of the library is to assist students in finding information to support their curriculum, research, and general information needs. In doing this, the library is ready and willing to teach students basic computer skills (scheduling, e-mail, Windows, etc.) to help them locate information on the Internet, and, when necessary, to direct them to other people and offices for further assistance. In addition to the traditional services of locating books and journals (in our library or elsewhere) for patrons, the library offers the following services:

- Explain plagiarism

Instructional services

- How to do research on the Internet
- How to cite sources in a paper
- Personal appointments for beginning a research paper. See "Ask A Librarian" on library home page (<http://library.ship.edu>)
- How to use Netscape, Explorer, Windows, and Microsoft Word

Information services

- Locate course descriptions for other colleges for students considering transferring
- Obtain books and articles from other libraries
- Locate names, addresses, and phone numbers

Computer services

- Access to the Internet
- Microsoft Office (Word, Excel, Access, & Powerpoint)
- Laser printing from computer stations @ 10¢/page (vend-a-card required)
- Assistance with online class scheduling

Study services

- Study Room on upper level may be reserved at Circulation Desk
- Extended hours during finals week (until 1 AM Monday-Thursday)

For more information, contact the Information Desk at 717-477-1474 or e-mail libref@ship.edu.



Computing and Network Services

The Information and Computing Technologies Center (ICTC) provides computing and network services for instruction, research, and administration. The center is located in the Mathematics and Computing Technologies Center. The major academic systems are the SUN Academic Server, the Novell based network server, and the Unisys Clearpath Administrative Server. All systems are accessible through our campus-wide gigabit Ethernet network.

Every student has an e-mail and world wide web (www) homepage account on the SUN Server. The SUN Server also supports the SAS statistical package, ORACLE for instruction, and Internet Domain Services. The Novell server provides central printing, files, and software distribution services. Students are encouraged to access their academic and scheduling records at the World Wide Web address of "info.ship.edu".

The university maintains three general purpose microcomputer laboratories and 18 labs which have department or major specific software installed. The general purpose labs have word processing, spreadsheet, SPSS, and presentation software installed. Two of the labs are open 24 hours 7 days per week. All users must have a valid university ID card in order to use the equipment and software.

Graduate Student Association Board

The Graduate Student Association Board has been 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 the 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.

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.

Shippensburg University

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 graduate classes due to bad weather will be available by calling HOTLINE at (717) 477-1200. 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.

Shippensburg University

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

Graduate Degrees

Shippensburg University provides graduate curricula leading to five degrees:

Master of Arts (M.A.)
Master of Business Administration (M.B.A.)
Master of Science (M.S.)
Master of Public Administration (M.P.A.)
Master of Education (M.Ed.)

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.

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.
Management Information Systems M.S.
Communication/Journalism Department
Communication Studies M.S.
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
Psychology M.S.

John L. Grove College of Business

Business Administration M.B.A.

College of Education and Human Services

Counseling Department
Counseling M.S.
College Counseling
Community Counseling
College Student Personnel Work
Mental Health Counseling
Counseling M.Ed.
Elementary School Counselor
Secondary School Counselor
Criminal Justice Department
Administration of Justice M.S.
Administration of Justice
Juvenile Justice
Educational Administration/Foundations Department
School Administration M.Ed.
Social Work and Gerontology Department
Applied Gerontology M.S.
Teacher Education Department
Special Education M.Ed.
Behavioral Disorders
Comprehensive Special Education
Learning Disabilities
Mentally Retarded
Reading M.Ed.
Curriculum and Instruction M.Ed.

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 Shippensburg University's education programs.

Shippensburg University's teacher education programs are accredited by the National Council for Accreditation of Teacher Education (NCATE) 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 nine semester hour credits of graduate work in professional education. A comprehensive list of these courses follows this section.
2. Each candidate's program for the Master of Education degree must include at least nine 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.

Professional Education Courses

The following courses meet the professional education requirement for the Master of Education degree. Other appropriate courses may be elected with advisement.

ECH460 Seminar in Child Development and Early Childhood Education	3 crs.	EDA505 Computers and the School Administrator	3 crs.
ECH461 Individualizing in Early Childhood: Assessing and Planning for Children's Special Needs	3 crs.	EDA508 Graduate Seminar in Instructional Strategies	3 crs.
ECH510 Including Children with Special Needs in Early Childhood Education	3 crs.	EDA512 The Curriculum in the Modern Secondary School	3 crs.
ECH520 Social and Emotional Development in Early Childhood Education	3 crs.	EDA530 The Instructional Leader in the Middle School	3 crs.
ECH530 Cognitive and Language Development in Early Childhood Education	3 crs.	EDA569 Seminar: Diversity in Education	3 crs.
ECH540 Families and Early Childhood Education	3 crs.	EDA580 Statistical Methods in Education	3 crs.
ECH563 Administration and Supervision of Early Childhood Program	3 crs.	EDA591 School Law	3 crs.
ECH577 Curriculum in Early Childhood Education	3 crs.	EDA592 General School Supervision	3 crs.
EDA500 General School Administration	3 crs.	EDA611 The Legal Aspects of Public School Administration	3 crs.
		EDA614 Business and Finance in Public Education	3 crs.
		EDA615 School and Community Relations	3 crs.
		EDA618 Curriculum Theory and Development	3 crs.
		EDU420 Microcomputers in the Classroom	3 crs.
		EEC411 Introduction to Exceptionality	3 crs.
		EEC474 Educational Needs of the Gifted Student	3 crs.
		EEC550 Foundations of Learning Disabilities	3 crs.
		MAT551 Technology in the Teaching and Learning of Mathematics	3 crs.
		PSY512 Theories of Learning	3 crs.
		PSY527 Studies in the Psychology of Adolescence	3 crs.
		PSY530 Studies in the Psychology of the Exceptional Child	3 crs.
		RDG422 Studies in Children's Literature	3 crs.
		RDG528 Foundations of Literacy Development	3 crs.
		RDG529 Reading and Reasoning Beyond the Primary Grades	3 crs.
		RDG532 Diagnosis and Assessment in Reading	3 crs.
		TCH410 Fostering Creativity and Higher-Order Thinking Skills	3 crs.
		TCH445 Strategies in Effective Classroom Management	3 crs.
		TCH475 Inclusive Education: A Practical Approach for Educators	3 crs.
		TCH501 Effective Teaching: Theory and Practice	3 crs.
		TCH511 Elementary School Curriculum	3 crs.
		TCH570 Perceptual-Motor Development and Movement Experience for Children	3 crs.
		TCH575 Advanced Child Development	3 crs.

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.

Instructional Certificates

Instructional I provisional certificates (Chapter 49.82) are issued to applicants who possess a baccalaureate degree, successfully complete a department-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 permanent certificates (Chapter 49.83) are issued to applicants who complete a department-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.

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, Pennsylvania.

Students who can qualify for admission to graduate classes are encouraged to take graduate work to earn the credits required for permanent 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 which may be applied toward certification in specific areas.

Elementary and Secondary School Principals

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 and a post-master's degree program leading to the certification of elementary and secondary school principals. Detailed information concerning this program can be found under the Educational Administration and Foundations 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
- Library Science
- Mathematics
- Reading
- Science
- Social Studies
- 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 Administration and Foundations 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 & Sciences

John E. Benhart, Ph.D., *Interim Dean, College of Arts and Sciences* (717-477-1151)

Biology Department

Michael J. McNichols, Ph.D., *Chair, Department of Biology* (477-1401)

Elaine J. Anderson, Ph.D.

Marcie L. Baer, Ph.D.

Lucinda H. Elliott, Ph.D.

Todd M. Hurd, Ph.D.

Larry H. Klotz, Ph.D.

David R. Long, Ph.D.

Timothy J. Maret, Ph.D.

Michael R. Marshall, Ph.D.

Earl L. Nollenberger, Ed.D.

William J. Patrie, Ph.D.

Gregory S. Paulson, Ph.D.

Ruthanne B. Pitkin, 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 four 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.

A student must apply for admission to candidacy after having completed six biology credits and satisfied any deficiencies.

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 in chemistry, physics, math and computer science, or geography/earth science.

Specific Requirements

Master of Science in Biology (non-thesis): In addition to completing BIO593 and BIO515, candidates must complete 27 semester hour credits of electives. Candidates may elect up to six 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 of electives. Candidates may elect up to three semester hour credits as graduate research. Thesis track candidates must also complete six semester hour credits of Thesis I and Thesis II (BIO612 and BIO613).

Other Requirements

1. All candidates must complete 31 semester hour credits with a 3.0 average 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.

Shippensburg University

FIELD OF SPECIALIZATION

A maximum of 12 credit hours of 400-level courses may be counted toward the master's degree. A plus sign (+) represents a required course in the appropriate track or degree.

BIO409 Immunology	3 crs.
BIO417 Herpetology	3 crs.
BIO423 Plant Pathology	3 crs.
BIO442 Hydrobiology	3 crs.
BIO444 Conservation Biology	3 crs.
BIO448 Field Botany & Plant Taxonomy	3 crs.
BIO450 Endocrinology	3 crs.
BIO455 Algae and Aquatic Plants	3 crs.
BIO462 Invertebrate Zoology	3 crs.
BIO463 Vertebrate Zoology	3 crs.
BIO478 Microtechniques	3 crs.
BIO485 Biological Microscopy & Imaging	3 crs.
BIO491 Selected Topics	3 crs.
BIO494 Field Research Techniques	3 crs.
BIO501 Topics in Evolutionary Biology	3 crs.
BIO513 Cytogenetics	3 crs.
BIO514 Aquatic Entomology	3 crs.
+ BIO515 How to Research, Write, and Publish a Scientific Paper	1 cr.
BIO516-519 Graduate Seminar	1 cr.
BIO535 Problems in Plant Physiology	3 crs.
BIO540 Biogeography	3 crs.
BIO547 Wetland Ecology	3 crs.
BIO555 Comparative Environmental Physiology	3 crs.
BIO556 Physiological Mechanisms of Animal Behavior	3 crs.
BIO557 Microbial Physiology	3 crs.
BIO558 Microbial Ecology	3 crs.
BIO559 Evolutionary Ecology	3 crs.
BIO575 Modern Genetics	3 crs.
BIO576 Structure of Vascular Plants	3 crs.
BIO581 Topics in Mammalian Biology	3 crs.
BIO583 Biological Techniques	3 crs.
+ BIO593 Biometry	3 crs.
BIO594 Selected Topics	1-3 crs.
BIO599 Independent Study	3 crs.
+ BIO600 Elements of Research	3 crs.
BIO605-608 Graduate Research	3-12 crs.
BIO609 Internship	3 crs.
+ BIO612 Thesis I	3 crs.
+ BIO613 Thesis II	3 crs.

Science Supervisor

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

Communication/Journalism Department

Edward J. Carlin, Ph.D., *Chair, Department of Communication/Journalism (477-1521)*

Jeffrey T. Bitzer, J.D.

Joseph Borrell, Ph.D.

Michael Drager, Ph.D.

Margaret Evans, M.F.A.

Richard W. Gibbs, M.A.

Patricia Waltermeyer, J.D.

Communication Studies (M.S.)

A minimum of 30 semester hour credits is required for the completion of the Master of Science degree in Communication Studies. The number of hours required will be determined following an interview with each applicant. Applicants who do not have an undergraduate degree in communications or journalism or extensive professional experience in communications will be required to take appropriate undergraduate courses to make up this deficiency. Applicants who do not have an overall undergraduate grade point average of 2.75 or greater will be required to take the Graduate Record Exam (GRE) or the Miller Analogies Test (MAT) prior to admission.

A student must apply for candidacy for the degree after completing at least six semester hours of graduate communications (COM) courses and any undergraduate courses specified by his or her committee, provided he or she has earned at least 3.0, "B" average in all courses completed. Applications for candidacy may be obtained from the graduate office.

In order to qualify for a Master of Science degree in Communication Studies, a candidate must satisfy one of the following study plans:

1. Complete a minimum of 30 graduate semester hour credits (course numbers 400 or higher) with a "B" average including a written thesis which is certified as acceptable by a committee of the Communication Studies faculty.
2. Complete a minimum of 33 graduate semester hour credits with a "B" average including a communications project which is certified as acceptable by a committee of the Communication Studies faculty.
3. Complete a minimum of 36 graduate semester hour credits with a "B" average and a written comprehensive examination which is certified as acceptable by a committee of the Communication Studies faculty.

Shippensburg University

Communication Studies

The communication studies program is directed to:

1. The media professional who seeks personal enrichment and who wants to advance in his/her career;
2. The baccalaureate degree holder in communication who wishes to refine and build upon previous academic preparation in communication;
3. The baccalaureate degree holder in another discipline who wishes to prepare for a career in the professional communications field.

The goal of the program is to graduate students who have a sophisticated grasp of the theoretical and practical aspects of communication. In order to pursue a broad-based program of theory and research, students may choose up to three electives in other disciplines in addition to those offered by the department (i.e., public affairs, management, political science, psychology, computer science, etc.).

REQUIRED COURSES (12 credits)

COM500 Communication Theory	3 crs.
COM544 Advanced Communication Problems	3 crs.
COM561 Press and Public Affairs	3 crs.
COM600 Introduction to Mass Communication Research	3 crs.

ELECTIVES (18-24 credits with advisement)

Students choose communication and related interdisciplinary courses (i.e. public affairs, management, political science, psychology, computer science, etc.) to satisfy professional goals and personal interests. Students are limited to three interdisciplinary courses.

Communication Studies Electives:

COM400 Public Relations Writing	3 crs.
COM414 History and Philosophy of Mass Communication	3 crs.
COM450 Radio and Television News	3 crs.
COM451 Electronic News Gathering and Field Production	3 crs.
COM460 Case Studies in Public Relations	3 crs.
COM470 Digital Photography	3 crs.
COM475 Magazine and Book Production	3 crs.
COM481 Desktop Design for Writers	3 crs.

COM511 Modes of Film Communication	3 crs.
COM516 Photographic Communication	3 crs.
COM526 Emerging Mass Media Technologies	3 crs.
COM530 Law and the Media	3 crs.
COM536 World Broadcasting Systems	3 crs.
COM570 Fundraising and Association Public Relations	3 crs.
COM603 Professional Project in Mass Communications	3 crs.
COM609 Internship I	3 crs.
COM610 Internship II	3 crs.
COM612-613 Thesis I-II	6 crs.

Interdisciplinary Electives:

With the program adviser's approval, students may select up to three interdisciplinary courses which enrich and broaden the communication studies curriculum.

Internships

COM609 Internship I, may be taken by qualified students. The internship requires a minimum of 120 hours of work at a mass media or 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 a media-related organization.

Professional Organizations

A variety of organizations supplement instruction. There are chapters of the Public Relations Student Society of America and the National Broadcasting Society. The department or its faculty belong to the Association for Education in Journalism and Mass Communications, the Broadcast Education Association, the Society of Professional Journalists, 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 the Educational Administration and Foundations Department.

Computer Science Department

Carol A. Wellington, Ph.D., *Chair, Department of Computer Science (477-1431)*
 John C. Arch, Ph.D.
 David A. Hastings, Ph.D.
 David J. Mooney, Ph.D.
 Mark H. Schroeder, Ed.D.
 Glenn E. Stambaugh, M.S.

Computer Science (M.S.)

To gain admission to the Master of Science degree program in computer science in the mathematics and computer science department, 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 attended a four-year American university must take the Test of English as a Foreign Language (TOEFL). All applicants must achieve a score of 237 on the new computer-based test.

Those students who do not have a minor in computer science must satisfy the requirements by the prerequisite courses listed below or by professional experience equivalent to our undergraduate courses:

CPS103 Overview of Computer Science
 CPS253 Structured Computer Programming
 CPS254 Data Structures and Abstract Data Types
 CPS257 Computer Systems Concept
 CPS308 File and Database Processing
 MAT211 Calculus I
 MAT225 Discrete Mathematics

A limited number of otherwise highly qualified applicants who do not satisfy the course prerequisites may be admitted with the understanding that they successfully take the required background courses.

Requirements are:

1. Graduate school requirements.
2. Thirty (30) credits, consisting of
 - (a) Four core courses: CPS512, 532, 533, 560.
 - (b) Research: CPS630.
 - (c) At least 3 electives at or above the 500 level.
 - (d) No more than 2 electives at the 400 level, none of which may duplicate a 500 level course taken for graduation credit.

3. Apply for candidacy (form available in department office).
4. Selection of a research committee, one of whom will serve as the candidate's primary advisor.
5. Defense of the candidate's research project.

A. REQUIRED CORE COURSES

CPS512 Design and Analysis of Algorithms	3 crs.
CPS532 Parallel Architectures	3 crs.
CPS533 Operating Systems	3 crs.
CPS560 Database Management Systems	3 crs.

B. REQUIRED RESEARCH

CPS630 Research, Design, Development Project in Computer Science	3 crs.
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C. ELECTIVES

CPS404 Software Engineering I	3 crs.
<i>NOTE: Graduate students will not receive credit for Software Engineering I unless they also take Software Engineering II.</i>	
CPS 406 Software Engineering II	3 crs.
CPS411 Microcomputing Interfacing	3 crs.
CPS412 Artificial Intelligence	3 crs.
CPS415 Techniques of Computer Simulation	3 crs.
CPS424 Compiler Design	3 crs.
CPS433 Web Programming	3 crs.
CPS448 Computer Networks and Communications	3 crs.
CPS460 Introduction to Computer Graphics	3 crs.
CPS490 Selected Topics in Computer Science	3 crs.
CPS546 Artificial Intelligence	3 crs.
CPS547 Computer Graphics	3 crs.
CPS548 Computer Networks and Communications	3 crs.
CPS620 Advanced Topics in Computer Science	3 crs.
BIS446 Total Information Systems	3 crs.
MAT410 Numerical Analysis I	3 crs.
MAT450 Combinatorics	3 crs.
MAT456 Deterministic Methods of Operations Research	3 crs.
MAT525 Modern Algebra	3 crs.
MAT538 Topics in Discrete Mathematics	3 crs.

Management Information Systems (M.S.)

Carol A. Wellington, Ph.D., *Chair, Department of Computer Science (477-1431)*
 Mary D. Myers, Ph.D., *Chair, Department of Accounting/Management Information Systems*
 John C. Arch, Ph.D., *Computer Science*
 Gary R. Armstrong, Ed.D., *Management Information Systems*
 J. Winston Crawley, Ph.D., *Computer Science*
 David Hastings, Ph.D., *Computer Science*
 Michael Marsh, Ph.D., *Management Information Systems*
 Dave Mooney, Ph.D., *Computer Science*
 Robert D. Rollins, D.Ed., *Management Information Systems*
 Mark H. Schroeder, D.Ed., *Computer Science*

Information systems permeate the business world. They are necessary to exist in an information dependent, competitive world. The Master of Science degree in Information Systems was developed to improve professional knowledge of information systems.

This interdisciplinary program is offered by the Department of Computer Science and the Department of Accounting/Management Information Systems. The program is designed to educate students in the technology associated with information systems, the concepts and processes of information systems, and the organizational role of information systems. It is intended for students who, either through formal education or experience in the work place, have a background in both business/management and computer science/information systems.

Each year, a cohort of twenty to thirty individuals is selected to go through the 30-credit, ten-course program together. The program is intended for practicing professionals working within an organization that has a computer-based information system. Students accepted into the program will complete the requirements in two and one-half years, taking one course in each of the four, 11 week, semesters per year. This program has a significant distance education component with approximately fifty percent of the material being delivered over the web. The face-to-face classes will be held at the Dixon University Center in Harrisburg. A student must demon-

strate knowledge in three broad areas acquired in a formal classroom setting or through experience in the work environment. The areas are:

Computer Programming: Problem analysis, algorithm synthesis, competence in programming in a high-level language (e.g., C++, COBOL, PASCAL, C, Java).

Quantitative Methods: Finite mathematics, elementary statistics, economic theory, accounting techniques, and problem solving in business, and a working knowledge of micro-computer spreadsheets and database management systems.

Organizational Behavior: Elementary psychology, personality formation, attitudes, motivation, social psychology.

REQUIRED COURSES (30 credits)

MIS510 Technology Integration and Applications	3 crs.
MIS520 Programs, Data, and File Structures	3 crs.
MIS530 Modeling and Decision Systems	3 crs.
MIS540 Data Communications, Networks, and Distributed Data Processing	3 crs.
MIS550 Database Design	3 crs.
MIS560 Introduction to E-Business	3 crs.
MIS570 Information Analysis	3 crs.
MIS580 Web Programming	
MIS590 Information Systems Development I	3 crs.
MIS600 Information Systems Development II	3 crs.

Geography/Earth Science Department

John E. Benhart, Ph.D., *Chair, Department of Geography-Earth Science (477-1685)*
Michael Applegarth, Ph.D.
William Blewett, Ph.D.
Daniel DeVitis, Ph.D.
Jane Ehemann, Ed.D.
Alison Feeney, Ph.D.
Thomas Feeney, Ph.D.
Kurtis Fuellhart, Ph.D.
Paul Marr, Ph.D.
Craig Oyen, Ph.D.
George Pomeroy, Ph.D.
William C. Rense, Ph.D.
Diane Stanitski-Martin, Ph.D.
Kay R.S. Williams, Ph.D.
Christopher J. Woltemade, Ph.D.

Geoenvironmental Studies (M.S.)

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

- a. 12 hours in geography *or* 12 hours in the earth sciences *or* a combined total of 18 hours in the two fields; *or*,
- b. 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.

The Master of Science degree program in geoenvironmental studies is for individuals employed with consulting firms, state or federal agencies, planning departments, engineers, planning commissions, public school teachers and administrators, local governments, and interested citizens who need advanced-level training in the environmental sciences. Increasing numbers of trained personnel are needed in the field of geoenvironmental studies as substantiated by the increase in the number of agencies created to deal with environmental

problems. This expansion is apparent within government at all levels, in education, in research foundations, and in industry (research, product planning, plant development, legal problems, operations and government relations). The graduates of Shippensburg University's program will be uniquely qualified to work on environmental impact assessments and audits, to implement drainage basin management and stormwater plans, to assess water systems and sources, to perform environmental geologic impacts, to design comprehensive land use plans and smart growth plans, to implement GIS (Geographic Information Systems) programs, and to follow proper research techniques to analyze environmental questions. Geographic information systems, computer applications, and field work are an integral part of the graduate program.

Geography-Earth Science Department Technology Center

The first floor of Shearer Hall houses the department's three technology labs. All computer labs are connected to the Internet and supplied with state-of-art data input/processing/output equipment.

The GIS Lab has 24 student workstations, each consisting of a computer and digitizing tablet. The lab has a flatbed scanner, laser printer for black and white hard copies, a color laser printer for map production, and an instructor's station for demonstration and PowerPoint presentations. First level courses (and primary software) such as Introduction to Geographic Information Systems (ArcView), Computer Mapping (AutoCad), and Cartography (Corel Draw) primarily utilize this lab.

The Ford Lab has 20 computers, a flatbed scanner, laser printer for black and white copies, color laser printer for map production, and an instructor's station for demonstrations and PowerPoint presentations. Upper-level courses such as Geographic Information Systems (GIS), Applied GIS, and Mapping Sciences utilize this lab as well as special conferences and workshops.

The Faculty/Student Research Lab is a specialized lab with advanced capabilities. It houses a large-format digitizer and a large-format scanner for capturing data from existing maps, aerial photographs, and satellite images. Two PC computers and a SUN Ultra 5 workstation are available for data processing. Quality map products are printed on a large-format HP DesignJet color printer/plotter.

This lab is designed to assist faculty, faculty/student, and student research projects.

For graduation with a Master of Science degree in geoenvironmental studies, a student must complete a minimum of 36 semester hour credits including 24 hours in geoenvironmental courses with advisement, six hours of electives in the behavioral and social sciences or natural sciences, and must complete a six-hour internship or master's thesis. If a six-hour internship is taken, a three credit geoenvironmental research course is required. A comprehensive written exam will be required after 24 hours of graduate work.

The department has a sequence of courses such as Mapping Sciences, Advanced GIS, Applied GIS, and Remote Sensing that provide valuable technology and computer applications to environmental problem solving.

I. FIELD OF SPECIALIZATION

Entrance level and advanced courses; 24 credits selected with advisement.

ESS413 Mineral and Rock Resources	3 crs.
ESS442 Environmental Geology	3 crs.
ESS491 Selected Topics: Groundwater Geology	3 crs.
GEO401 Geography of Tourism	3 crs.
GEO402 Environmental Health	3 crs.
GEO403 Natural Hazards and Hostile Environments	3 crs.
GEO420 Geographic Information Systems	3 crs.
GEO440 Field Techniques	3 crs.
GEO441 Quantitative Methods	3 crs.
GEO444 Environmental Land Use Planning	3 crs.
GEO445 Remote Sensing	3 crs.
GEO446 Water Resources Management	3 crs.
GEO450 Geography-Geology Field Studies	1 cr.
GEO490 Selected Topics: Environmental Law	3 crs.
GEO500 Environments of the National Parks	3 crs.
GEO514 Urban Environment	3 crs.
GEO517 Applied GIS	3 crs.
GEO522 Geoenvironmental Hydrology	3 crs.
GEO524 The Geologic Environment	3 crs.
GEO526 The Atmospheric Environment	3 crs.
GEO528 Geography of Economic and Environmental Systems	3 crs.
GEO530 Mapping Sciences	3 crs.
GEO532 Geography of Environmental Health	3 crs.
GEO536 Problems of the Atmospheric Environment	3 crs.
GEO542 Land Use Regulations	3 crs.
GEO546 Geoenvironmental Research I	3 crs.
GEO548 Geoenvironmental Research II	3 crs.

II. INTERNSHIP OR THESIS

Six credit internship or thesis required. If an internship is taken, a 3 credit research course is required.

GEO609-610 Internship I & II	6 crs.
GEO612-613 Thesis I & II	6 crs.

III. NATURAL SCIENCES ELECTIVES

At least 3 credits required; to be selected with advisement.

IV. SOCIAL SCIENCES ELECTIVES

At least 3 credits required; to be elected with advisement.

History and Philosophy Department

David Godshalk, Ph.D., *Chair, Department of History and Philosophy (477-1132)*

- Paul Adams, Ph.D.
- Kwabena Akurang-Perry, Ph.D.
- Steven Burg, Ph.D.
- Catherine Clay, Ph.D.
- Betty A. Dessants, Ph.D.
- Kim Klein, Ph.D.
- Susan Meo, Ph.D.
- Chandrika Paul, Ph.D.
- John Quist, Ph.D.
- Vera Reber, Ph.D.
- Christine Senecal, Ph.D.
- Robert Shaffer, Ph.D.
- Jonathan Skaff, Ph.D.
- George Snow, Ph.D.
- Mark E. Spicka, Ph.D.

Applied History (M.A.)

The Master of Arts program in Applied History is specifically designed for college graduates seeking advanced historical training and educators seeking professional development opportunities. It offers advanced study in diverse historical fields and subjects, and advanced training in computerized historical research methods. The program prepares students for immediate employment in museums, historical organizations, business, and government. You may enter the program as a degree candidate or take individual courses as a non-degree student. Graduate credits can fulfill Act 48 requirements, be applied toward permanent certification in teaching or toward work on a doctorate or other advanced degree.

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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 grade point average for your undergraduate studies.

If you have less than a 2.75 cumulative grade point average, you may be accepted following an interview in which you provide additional evidence of your interest in history and your potential as a graduate student.

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 credits)

HIS600 Computerized Historical Research Methods	3 crs.
HIS418 Introduction to Applied History and and	3 crs.
HIS609 and 610 Internship I and II or	6 crs.
HIS612 and 613 Thesis I and II	6 crs.

ELECTIVES (18 credits)

Chosen within the following fields:

I. History of the Americas (9 credits)

HIS402 Revolutionary America	3 crs.
HIS428 Issues in the Gilded Age and Progressive Era	3 crs.
HIS490 Selected Topics	1-3 crs.
HIS513 Seminar in U.S. Women's History	3 crs.
HIS515 Seminar in 20 th Century U.S. Social History	3 crs.
HIS516 Seminar in African-American History	3 crs.
HIS525 Seminar in U.S. Regional History	3 crs.
HIS526 Seminar in Civil War Era	3 crs.
HIS601 Research in Local & Regional History	3 crs.

II. Global Connections and Comparisons

(6 credits)

HIS407 Women in Comparative Perspective	3 crs.
HIS410 The Islamic World	3 crs.
HIS421 Studies in 19 th Century European History	3 crs.
HIS422 The French Revolution and Napoleonic Eras	3 crs.
HIS423 Issues in 20 th Century Europe	3 crs.

HIS490 Selected Topics	1-3 crs.
HIS499 Historiography	3 crs.
HIS510 Seminar in the Social History of Education	3 crs.

HIS512 Seminar in Comparative Labor History	3 crs.
HIS514 Population in History	3 crs.
HIS519 Seminar in International Relations	3 crs.
HIS534 Seminar in Modern German History	3 crs.
HIS535 Seminar in Medieval Studies	3 crs.
HIS540 Comparative Latin American History	3 crs.
HIS545 History, Theory, and Pre-Industrial Societies	3 crs.
HIS550 Seminar in South Asian History	3 crs.
HIS555 Seminar in Russian, Soviet, and Post-Soviet History	3 crs.
HIS558 Seminar in East Asia and the Modern World	3 crs.
HIS562 Seminar in African History	3 crs.
HIS601 Research in Local & Regional History	3 crs.

III Applied History Skills (3 credits)

HIS419 Advanced Topics in Public History	3 crs.
HIS490 Selected Topics	1-3 crs.
HIS494 Introduction to Archives	3 crs.
HIS594 Selected Topics	1-3 crs.
HIS598 Independent Study	3 crs.
HIS599 Readings in History	3-6 crs.

Political Science Department

Sara A. Grove, Ph.D., *Chair, Department of Political Science* (477-1718)

Curtis R. Berry, Ph.D.

C. Nielsen Brasher, Ph.D.

Kim E. Fox, Ph.D.

Donald K. Frazier, Ph.D.

Donald F. Mayer, Jr., Ph.D.

Ronnie 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 6 semester hour credits in government and/or political science. Students will be required to make up any deficiencies in their undergraduate work. Students who do not meet these requirements must do so prior to admission to candidacy.

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 and/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 the first core course taken by students. It is recommended that Research Methods, PLS601, be taken prior to Quantitative Analysis and Computer Applications in Public Administration, PLS602. PLS601 is a prerequisite for Public Policy Analysis, PLS603. PLS602 is recommended before PLS603. PLS603 should be taken as late as possible in a student's program to provide a capstone experience. In unusual circumstances, and with the approval of the department, an additional elective course may be substituted for Internship II, PLS612. To substitute the thesis for the internship requires the approval of the department.

Master of Public Administration (36 credits)

Required Core Courses (18 credits)

- 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 credits)

- PLS611 Internship I
- PLS612 Internship II
- OR
- PLS621 Thesis I
- PLS622 Thesis II

Electives (12 credits)

- 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

- Ronald Mehiel, Ph.D., *Chair, Department of Psychology (477-1657)*
- Hugh M. Aberman, Ed.D.
- Angela M. Bartoli, Ph.D.
- C. George Boeree, Ph.D.
- Kenneth France, Ph.D.
- Robert L. Hale, Ph.D.
- Scott F. Madey, Ph.D.
- Suzanne Morin, Ph.D.
- Ralph J. Payne, Ph.D.
- Toru Sato, Ph.D.
- Adrian Tomer, Ph.D.
- Kim Weikel, Ph.D.

Psychology (M.S.)

The Master of Science degree program in psychology is designed to provide advanced general knowledge of the field and the opportunity to develop more specific skills in research. In conference with faculty advisers, each candidate will develop a personal program designed to meet his or her own specific needs and interests. This program may be used to achieve the following goals: the enhancement of knowledge of psychology; and knowledge development for further graduate training.

An applicant must meet the minimum standards for admission into the graduate school. Applicants must have a 2.75 quality point average. Additionally, six undergraduate credit hours in psychology and one course in statistics are required for admission. Each applicant will be required to submit an application and fill out a personal goals statement by the first Tuesday in April for summer or fall admission, or the first Tuesday in November for spring admission.

A total of 33 semester hour credits of graduate work is required for the Master of Science degree.

I. REQUIRED (6 credits)

- PSY500 Advanced Research Design and Statistics 3 crs.
- PSY540 History of Psychology 3 crs.

NOTE: PSY500 *has a residency requirement — it must be taken from the Department of Psychology. In addition, successful completion of a statistics competency test is necessary prior to enrollment in this class. This course must be taken prior to earning 15 credit hours.*

Shippensburg University

II. CORE COURSES (15 credits)

(Chose one from each of the following 5 areas)

Learning and Motivation

PSY512 Theories of Learning 3 crs.
PSY516 Psychology of Motivation 3 crs.

Personality and Abnormal

PSY515 Theories of Personality 3 crs.
PSY534 Research in Abnormal Psychology 3 crs.

Cognitive

PSY531 Advanced Cognitive Psychology 3 crs.
PSY533 Social Cognition 3 crs.

Developmental

PSY519 Life Span 3 crs.
PSY527 Studies of Adolescence 3 crs.
PSY529 Psychology of Senescence 3 crs.

Biopsychology

PSY532 Advanced Physiological Psychology 3 crs.
PSY430 Sensation and Perception 3 crs.
PSY435 Psychopharmacology 3 crs.

III. ELECTIVES (12 credits)

PSY405 Qualitative Research Methods 3 crs.
PSY410 Psychology and Women 3 crs.
PSY420 Health Psychology 3 crs.
PSY430 Sensation and Perception 3 crs.
PSY435 Psychopharmacology 3 crs.
PSY470 Legal Psychology 3 crs.
PSY475 Industrial Organizational 3 crs.
PSY485 Tests and Measurements 3 crs.
PSY518 Behavior Modification 3 crs.
PSY526 Studies in the Psychology
of Childhood 3 crs.
PSY527 Adolescence 3 crs.
PSY529 The Psychology of Senescence 3 crs.
PSY530 Studies in the Psychology
of the Exceptional Child 3 crs.
PSY534 Research in Abnormal Psychology 3 crs.
PSY590 Group Dynamics 3 crs.
PSY594 Selected Topics 3 crs.
PSY598 Independent Study 3 crs.
PSY612 Thesis I 3 crs.

Students completing Thesis I must also complete Thesis

II to be awarded credit for Thesis I
PSY613 Thesis II 3 crs.

John L. Grove College of Business

Stephen J. Holoviak, Ph.D., *Dean, John L. Grove College of Business (717-477-1435)*

Business Administration (M.B.A.)

Bryan Booth, Ph.D., *Management*
Larry Bitner, D.B.A., *Accounting*
Louise Hatfield, Ph.D., *Management*
Jonathan Kohn, Ph.D., *Information Management and Analysis*
Daniel Lee, Ph.D., *Economics*
Hong Rim, Ph.D., *Finance*
Ron Taylor, D.B.A., *Marketing*
Joanne Tucker, Ph.D., *Information Management and Analysis*
Thomas Verney, Ph.D., *Management*

Shippensburg University's M.B.A. program provides a broad coverage of required concepts and principles common to all business activities and allows for the selection of specialty areas. The curriculum adheres to the AACSB

International standards and requirements for M.B.A. programs. It is a 30-credit program composed of 24 credits of core courses and 6 credits of electives. Students will select electives from a variety of business topics or from other areas such as gerontology, psychology, and organizational development and leadership.

The M.B.A. program is designed for part-time students who will complete the program in two or two and a half years taking courses in the evenings and online. Students take two core courses per semester. Course sequence is flexible as the core courses do not have prerequisites beyond the basic requirements to enter the M.B.A. program.

Admission criteria will be consistent with guidelines established by AACSB International. The undergraduate course work and degree, relevant work experience, and GMAT scores (if required) will be evaluated and form the basis for admission. Prior experience or undergraduate credits in three areas are required: quantitative analysis, computer usage, and oral and written communications. Eighteen semester hours of prerequisite knowledge in accounting, economics, finance, organizational behavior, marketing, and operations management. These courses may be taken at the undergraduate or graduate level. Following is a list of appropriate courses offered at Shippensburg University:

- ACC200 Fundamentals of Financial Accounting
- ECN113 Principles of Economics
- FIN305 Financial Planning and Analysis
- INM330 Operations Management
- MGT305 Organizational Behavior
- MKT305 Principles of Marketing

Each course will be taught in an electronic classroom and delivered, via video conferencing technology through Shippensburg University, to the Dixon University Center in Harrisburg. For each hour of instructional time, students spend two-thirds of their time in the electronic classroom and one-third on web-based activities. Class time will emphasize concepts and principles. Web time will involve activities that reinforce the learning process such as simulations, team problem solving, online competitions between individuals or teams, chat room to allow for student-to-student or student-to-professor interactions. Each class meeting is videotaped so that students may view missed classes online at any time via video streaming.

REQUIRED CORE COURSES

MBA 502 Managerial Accounting
MBA529 Global Management 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

MBA532 Marketing Research
MBA533 Business Operations and Logistics Planning
MBA547 Management Information Systems and Applications
MBA561 Human Resources and Development
MBA570 Marketing Management
MBA572 Marketing in a Technological Environment
MBA594 Selected Topics
MBA596 Business Practicum
MBA599 Independent Studies
Electives from psychology or gerontology

For more information contact:
Office of Graduate Admissions
Shippensburg University
1871 Old Main Drive
Shippensburg, PA 17257-2299
717-477-1213
717-477-1483

Dr. Robert Rollins
Director of Graduate Studies for Business or
Vickie Shaak, secretary
John L. Grove College of Business
Shippensburg University
1871 Old Main Drive, Grove Hall #324
Shippensburg, PA 17257-2299
717-477-1437
717-477-1438

College of Education and Human Services

Robert B. Bartos, Ed.D., *Dean, College of Education and Human Services (717-477-1373)*

Counseling Department

Thomas L. Hozman, Ph.D., *Chair, Department of Counseling (477-1668)*
Jan L. Arminio, Ph.D.
Robert B. Bartos, Ed.D. (adjunct)
Clifford W. Brooks, Jr., Ed.D.
Andrew L. Carey, Ph.D.
Shirley A. Hess, Ph.D.
Kurt L. Kraus, Ed.D.
Rebecca M. LaFountain, Ed.D.
Beverly L. Mustaine, Ed.D.
Counseling Center
Mary O. Bradshaw, M.Ed.
Kathryn A. Kurdt, Ph.D.
Eric Rosenthal, Ph.D.

Mission Statement

The mission of the Department of Counseling is to provide a comprehensive counselor education program, grounded in the latest research and technology, that will produce knowledgeable, skillful, creative, ethical, self-aware, and multiculturally attuned counselors who can facilitate the helping process with a variety of clients.

Department Goals for Student Learning

The department and faculty are dedicated to the development of students both as counselors and individuals. Thus, department goals for student learning address both the professional and personal development of students. The following 11 overall departmental goal statements identify specific behaviors that are expected of students successfully completing any of the counseling concentrations.

- A high level of personal growth and development.
- Understanding of basic subject matter underlying the practice of counseling and guidance.
- The ability to gather, analyze, and interpret individual and group data.
- The ability to generate and test hypotheses about human behavior.
- The ability to counsel effectively in both individual and group settings.
- The ability to design, implement, and evaluate appropriate programs and interventions.
- The ability to determine how the goals and objectives of counseling programs relate to the goals of the institution or agency.
- The ability to perform effective consultation, coordination, and referral.
- The ability to understand and demonstrate ethical behavior and to be aware of the legal implications of one's actions.
- A sense of responsibility for one's own professional identity and growth.
- The ability to be sensitive to and understanding of the needs of those who are culturally different, including the ability to 1). examine attitudes and myths regarding the culturally different and 2). understand the sociopolitical forces impacting on the minority or culturally different client.

Accreditation

In addition to the accreditations shared with the university, the College Student Personnel, School Counseling, College Counseling, Community 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 which 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 offers graduate programs leading to the Master of Education degree in counseling with certification as elementary or secondary school counselors and the Master of Science degree with specialization in Community or College Counseling or College Student Personnel. A 60-hour Master of Science degree with specialization in Mental Health Counseling is also offered.

Admission to Program

All applicants for admission to the Department of Counseling program must begin by applying to the Office of Graduate Admissions. The Department of Counseling will supply the applicant with required departmental application forms after notification the individual has met the requirements of the Office of Graduate Admissions.

Admission to the Department of Counseling 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 in addition to the general requirements for admission to graduate study.

1. It is strongly recommended applicants 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.).

2. Applicants who do not have an overall undergraduate cumulative QPA of 2.75 or higher are required to take the Graduate Record Exam (GRE) prior to admission. Conditions for retention may be made at the time of admission.
3. 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 an interview. The applicant will be notified by mail of this decision. Applicants who are invited to an interview will be evaluated with respect to personal integrity, professional attitude, capacity to communicate, and appropriateness of counseling as a career choice.

During the personal interview, each student will receive a copy of the *Student Manual*. This manual is an important supplement to the graduate catalog in that it includes policies and procedures unique to the Department of Counseling.

Applicants to all concentrations are expected to have a minimum of one year's experience (paid or volunteer) in the area to which they are applying.

Students are admitted to either Elementary or Secondary School Counseling at the time of application. Students may apply for dual certification at candidacy.

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 on-going 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 competencies, personality factors, and other relevant issues 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 those behaviors which detract from the ability to provide a constructive helping relationship to others.

3. Submit for review additional supportive evidence which demonstrates competence in the skill areas deemed deficient via audio or videotapes or live presentations of skills, etc.
4. Limit enrollment to those courses which 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 attitude, 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's *Student Manual* made available at the admissions interview.

Certification in Counseling

The Department of Counseling offers graduate programs leading to the following certificates for school counselors:

- Elementary School Guidance Counselor (Specialist I)
- Secondary School Guidance Counselor (Specialist I)

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

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 other than elementary and secondary schools; therefore, completion of the Master of Science degree will not lead to certification as a school counselor. A minimum of 48 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 which has been planned with the close assistance of an adviser.

Students in this counseling program may select, with departmental approval, an area of emphasis from the following: College Counseling, College Student Personnel, Community Counseling, or Mental Health Counseling.

The College Counseling concentration prepares counselors to work in therapeutic settings at colleges, universities, and community colleges.

The College Student Personnel concentration provides preparation for persons who plan to work as student affairs administrators in colleges, universities, or community colleges.

The Community Counseling concentration is designed to prepare students to work in community agency settings with a focus on community need and promotion of counseling services.

The Mental Health Counseling concentration is designed to prepare students to work in therapeutic mental health settings with an emphasis on assessment, diagnosis, and direct counseling services.

College Student Personnel Concentration

REQUIRED COURSES (48 credits)

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 adviser 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.

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 8 AM to 5 PM time frame.

Phase I (Required by all students) 15 credits

CNS559 Introduction to the Helping Services	3 crs.
CNS600 Research and Statistics	3 crs.
CNS515 Career Development	3 crs.
PSY519 Life Span Psychology	3 crs.
CNS578 Pre-Practicum in Counseling	3 crs.

Phase II 21 credits

CNS585 Practicum in Counseling	3 crs.
CNS522 Assessment Techniques in Counseling	3 crs.
CNS509 Multicultural Counseling	3 crs.
CNS512 Group Counseling Leadership Skills	3 crs.
CNS560 Introduction to College Personnel Work	3 crs.
CNS565 The College Student and the College Environment	3 crs.
CNS587 Advanced Research Seminar in Counseling	

Phase III 12 credits

CNS562 Student Personnel Work in Higher Education	3 crs.
CNS580 Clinical Field Experience I	3 crs.
CNS589 Clinical Field Experience II	3 crs.
Elective	3 crs.
Research Project	

Minimum = 48 credits

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 should be completed during the CNS600 research course which should be taken during the first semester of full-time study. Work on the project will be continued in CNS 587, Advanced Research Seminar in Counseling. The completed project must be submitted to the student’s advisor two months prior to graduation.

College Counseling Concentration

REQUIRED COURSES (48 credits)

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 adviser on a regular basis is required as a student progresses through the program. A student must apply for admission to candidacy the semester he or she is enrolled in Practicum.

Phase I (Required by all students) 15 credits

- CNS559 Introduction to Helping Services 3 crs.
- CNS600 Research and Statistics 3 crs.
- CNS515 Career Development 3 crs.
- PSY519 Life Span Psychology 3 crs.
- CNS578 Pre-Practicum in Counseling 3 crs.

Phase II 27 credits

- CNS585 Practicum in Counseling 3 crs.
- CNS522 Assessment Techniques in Counseling 3 crs.
- CNS509 Multicultural Counseling 3 crs.
- CNS573 Theories of Counseling 3 crs.
- CNS512 Group Counseling Leadership Skills 3 crs.
- CNS560 Introduction to College Personnel Work 3 crs.
- CNS565 The College Student and the College Environment 3 crs.
- CNS588 Advanced Psychotherapeutic Skills 3 crs.
- CNS524 DSM-IV Classification of Psychopathology 3 crs.

Phase III 9 credits

- CNS580 Clinical Field Experience I 3 crs.
- CNS589 Clinical Field Experience II 3 crs.

Optional Classes

- Elective 3 crs.
- Research Project

Minimum = 48 credits

Community Counseling Concentration

REQUIRED COURSES (48 credits)

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 adviser on a regular basis is required as a student progresses through the program. A student must apply for admission to candidacy the semester he or she is enrolled in Practicum.

Phase I (Required by all students) 18 credits

- CNS559 Introduction to Helping Services 3 crs.
- CNS578 Pre-Practicum in Counseling 3 crs.
- CNS563 Professional Orientation to Community Counseling 3 crs.
- CNS573 Theories of Counseling 3 crs.
- CNS512 Group Counseling Leadership Skills 3 crs.
- CNS524 DSM-IV Classification of Psychopathology 3 crs.

Phase II 24 credits

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

- CNS585 Practicum in Counseling 3 crs.
- CNS600 Research & Statistics 3 crs.
- CNS515 Career Development 3 crs.
- PSY519 Life Span Psychology 3 crs.
- CNS522 Assessment Techniques in Counseling 3 crs.

The following course may be taken prior to or concurrent with enrollment in Clinical Field Experience I:

- CNS588 Advanced Psychotherapeutic Skills 3 crs.

The following two courses may be taken anytime during Phase II or Phase III in the program:

- CNS509 Multicultural Counseling 3 crs.
- Elective 3 crs.

Phase III 6 crs.

Clinical Field Experiences I and II are culminating experiences in the Community Counseling concentration and are generally taken in the last two semesters of the program.

- CNS580 Clinical Field Experience I 3 crs.
- CNS589 Clinical Field Experience II 3 crs.

Minimum = 48 credits

Mental Health Counseling Concentration

REQUIRED COURSES (60 credits)

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 adviser on a regular basis is required as a student progresses through the program. A student must apply for admission to candidacy the semester he or she is enrolled in Practicum.

Phase I (Required by all students) 18 credits

- CNS559 Introduction to Helping Services 3 crs.
- CNS578 Pre-Practicum in Counseling 3 crs.
- CNS568 Professional Orientation to Mental Health Counseling 3 crs.
- CNS573 Theories of Counseling 3 crs.
- CNS512 Group Counseling Leadership Skills 3 crs.
- CNS524 DSM-IV Classification of Psychopathology 3 crs.

Phase II 33 credits

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

- CNS585 Practicum in Counseling 3 crs.
- CNS600 Research & Statistics 3 crs.
- CNS515 Career Development 3 crs.
- PSY519 Life Span Psychology 3 crs.
- CNS522 Assessment Techniques in Counseling 3 crs.

The following two courses may be taken prior to or concurrent with enrollment in Clinical Field Experience I:

- CNS588 Advanced Psychotherapeutic Skills 3 crs.
- CNS510 Drug and Alcohol Counseling 3 crs.

The following two courses may be taken anytime during Phase II or Phase III in the program:

- CNS509 Multicultural Counseling 3 crs.
- Elective 3 crs.
- Elective 3 crs.
- Elective 3 crs.

Phase III 9 credits

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

- CNS580 Clinical Field Experience I 3 crs.
- CNS589 Clinical Field Experience II 3 crs.
- CNS590 Advanced Clinical Field Experience 3 crs.

Minimum = 60 credits

Counseling (M.Ed.)

A minimum of 48 semester hour credits of graduate work is required for the Master of Education degree with specialization in counseling. Students in the Master of Education degree curriculum in counseling may specialize in Elementary School Counseling or in Secondary School Counseling.

Elementary School Counseling Concentration (degree and certification)

REQUIRED COURSES (48 credits)

Courses are organized into three phases and should be taken in that order. The sequence within each phase should be adhered to as closely as possible. Consultation with an adviser 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 15-18 credits

- CNS559 Intro to Helping Services 3 crs.
- CNS515 Career Development 3 crs.
- CNS600 Research and Statistics 3 crs.
- PSY519 Life Span Psychology 3 crs.
- CNS578 Pre-Practicum in Counseling 3 crs.
- TCH511 Elementary School Curriculum* 3 crs.

(*Only if not certified to teach Elementary level)
Note: All students must successfully complete the four subtests of the PPST (i.e. reading, mathematics, writing, listening skills) of the PRAXIS examination prior to candidacy.

Phase II 21 credits

- CNS585 Practicum in Counseling 3 crs.
- CNS573 Theories of Counseling 3 crs.
- CNS522 Assessment Techniques in Counseling 3 crs.
- CNS512 Group Counseling Leadership Skills 3 crs.
- CNS509 Multicultural Counseling 3 crs.
- CNS505 Organization and Administration of School Counseling Services 3 crs.
- CNS567 Counseling Children 3 crs.

Phase III 6 crs.

- CNS580 Clinical Field Experience I 3 crs.
- CNS589 Clinical Field Experience II 3 crs.

Shippensburg University

Electives	6 crs.
***Choose one from the following:	
EEC550 Foundations of Learning Disabilities	3 crs.
EEC411 Introduction to Exceptionality	3 crs.
TCH475 Inclusive Education: Practical Approaches	3 crs.

***Choose one from the following:	
CNS508 Marriage and Family Counseling	3 crs.
CNS510 Drug and Alcohol Counseling	3 crs.
CNS564 Grief and Loss Issues in Counseling	3 crs.

Minimum = 48-51 crs.

Please note: Not all courses are offered each semester

***Certification in School Counselor by the Pennsylvania Department of Education requires successful completion of the School Guidance and Counseling PRAXIS examination (#0402). Students should register for and take this test toward the end of their course of study, ideally following CNS 589 Clinical Field Experience II and CNS 505 Organization and Administration of School Counseling Services.

Secondary School Counseling Concentration (degree and certification)

REQUIRED COURSES (48 credits)

Courses are organized into three phases and should be taken in that order. The sequence within each phase should be adhered to as closely as possible. Consultation with an adviser 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	15-18 credits
CNS559 Introduction to Helping Services	3 crs.
CNS515 Career Development	3 crs.
CNS600 Research and Statistics	3 crs.
PSY519 Life Span Psychology	3 crs.
CNS578 Pre-Practicum in Counseling	3 crs.
EDA512 Curriculum in the Modern Secondary School*	3 crs.

(*Only if not certified to teach Secondary level)

Note: All students must successfully complete the four subtests of the PPST (reading, mathematics, writing, listening skills) of the PRAXIS examination prior to candidacy.

Phase II	21 credits
CNS585 Practicum in Counseling	3 crs.
CNS573 Theories of Counseling	3 crs.
CNS522 Assessment Techniques in Counseling	3 crs.
CNS512 Group Counseling Leadership Skills	3 crs.
CNS509 Multicultural Counseling	3 crs.
CNS505 Organization and Administration of School Counseling Services	3 crs.
CNS588 Advanced Psychotherapeutic Skills	3 crs.

Phase III	6 credits
CNS580 Clinical Field Experience I	3 crs.
CNS589 Clinical Field Experience II	3 crs.

Electives	6 crs.
***Choose one from the following:	
EEC550 Foundations of Learning Disabilities	3 crs.
EEC411 Introduction to Exceptionality	3 crs.
TCH475 Inclusive Education: Practical Approaches	3 crs.

***Choose one from the following:	
CNS508 Marriage and Family Counseling	3 crs.
CNS510 Drug and Alcohol Counseling	3 crs.
CNS564 Grief and Loss Issues in Counseling	3 crs.

Minimum = 48-51 credits

Please note: Not all courses are offered each semester

***Certification in School Guidance Counselor by the Pennsylvania Department of Education requires successful completion of the School Guidance and Counseling PRAXIS examination (#0420). Students should register for and take this test toward the end of their course of study, ideally following CNS 589 Clinical Field Experience II and CNS 505 Organization and Administration of School Counseling Services.

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 Educational Administration and Foundations Department.

Criminal Justice Department

Robert M. Freeman, Ph.D., *Chair, Department of Criminal Justice* (477-1558)
 Thomas L. Austin, Ph.D.
 Donna C. Hale, Ph.D.
 James L. Jengeleski, Ed.D.
 John H. Lemmon, Ph.D.
 Daniel J. Menniti, Ph.D., J.D.
 E. Britt Patterson, Ph.D.

Administration of Justice (M.S.)

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). Students not meeting either requirement may be admitted on a conditional or probationary basis after an interview with the department. Provisionally admitted students must successfully complete a minimum of two (2) courses (six credits) from the required criminal justice core (see below) with a grade of “B” or better in each course.

Mission Statement

The Department of Criminal Justice offers three 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 cohort program is designed for in-service students pursuing graduate study. The “weekend” program is designed specifically for juvenile probation officers employed in the Commonwealth of Pennsylvania and is offered in conjunction with the Pennsylvania Juvenile Court Judges Commission. 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.

Shippensburg University

I. Required Core Courses (24 credits)

CRJ501 Foundations of Criminal Justice	3 crs.
CRJ520 Criminal Justice Administration and Management	3 crs.
CRJ550 Graduate Seminar	3 crs.
CRJ560 Theories of Crime and Delinquency	3 crs.
CRJ590 Criminal Justice Policy Analysis	3 crs.
CRJ600 Research Methods in Criminal Justice	3 crs.
CRJ610 Quantitative Methods in Criminal Justice	3 crs.
CRJ631 Designing and Evaluating Criminal Justice Research	3 crs.

II. Criminal Justice Electives (12 credits)

CRJ570 Legal Trends and Issues in Criminal Justice	3 crs.
CRJ580 Juvenile Justice Systems	3 crs.
CRJ585 Corrections: Offender Treatment and Rehabilitation	3 crs.
CRJ593 Independent Study in Criminal Justice	3 crs.
CRJ594 Selected Topics	3 crs.
CRJ595 Practicum I	3 crs.
CRJ597 Practicum II	3 crs.
CRJ612 Thesis I	3 crs.
CRJ613 Thesis II	3 crs.
CRJ617 Internship I	3 crs.
CRJ618 Internship II	3 crs.

Interdisciplinary Course(s) 3-6 credits

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, Educational Administration and Foundations, Government/Public Administration, History, Psychology, and Special Education. These may be substituted for Criminal Justice electives up to a maximum of six (6) credits.

Educational Administration and Foundations Department

Nancy H. Stankus, Ed.D., *Chair, Department of Educational Administration (477-1591)*
 Thomas W. Cypher, Ed.D.
 James A. Ryland, Ph.D.

Programs Offered

The Department of Educational Administration and Foundations offers graduate programs leading to the Master of Education degree in educational administration and post-master's degree programs leading to the certification of elementary/middle and middle/secondary school principals, and the Superintendent's Letter of Eligibility. The department also offers post-master's degree programs leading to the Supervisory I Certificate in 12 fields of specialization. Applicants who do not have an overall grade point average of 2.75 or greater will be required to schedule a personal interview with the Department of Educational Administration and Foundations prior to admission to the degree program.

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

Students in educational administration programs are encouraged to take the following courses in their initial 18 hours of graduate studies: EDA500 General School Administration, EDA592 General School Supervision, EDA580 Statistical Methods in Education, EDA600 Research for School Administrators, EDA501 Curriculum for School Leaders K-12.

It is highly recommended that EDA580, Statistical Methods in Education, and EDA600, Research for School Administrators, be taken as soon as possible in their program of studies. Students should register for EDA580 prior to taking EDA600.

In those programs which 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, personality factors, and other relevant issues 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 administration must have an instructional or educational specialist certificate. The applicant must obtain from the Department of Educational Administration and Foundations 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. 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 with the Department of Educational Administration an official application and a letter applying for admission to candidacy upon the completion of at least six and not more than 12 semester hour credits of graduate work at this institution. These hours should include at least one required course in administration, supervision, and curriculum.
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 the graduate courses completed.
4. Recommendation for admission to candidacy for the master's degree will be determined by faculty involved in the administration program, following an interview by a committee of three faculty members. Judgments will involve consideration of the academic record, interview interaction, and letters of recommendation and a discussion of the student's statement of purpose as presented in the letter that accompanies the application for admission to candidacy.

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

School Administration (M.Ed.)

A minimum of 30 semester hour credits is required. Students planning a career in the elementary schools should register for TCH575 Child Development. Students planning a career in the secondary schools should register for PSY527 Studies in the Psychology of Adolescence. Starred (*) courses are required.

I. Administration and Supervision (9 credits required)

EDA500 General School Administration *	3 crs.
EDA505 Computers and The School Administrator *	3 crs.
EDA592 General School Supervision *	3 crs.

II. Curriculum and Instruction (6 credits required)

EDA501 Curriculum for School Leaders K-12 *	3 crs.
EDA530 Instructional Leader in the Middle School *	3 crs.
EDA508 Graduate Seminar in Instructional Strategies	3 crs.
TCH511 Elementary School Curriculum	3 crs.
EDA512 Curriculum in the Modern Secondary School	3 crs.

III. Research and Measurement (6 credits required)

EDA580 Statistical Methods in Education *	3 crs.
EDA600 Research for School Administrators *	3 crs.

****IV. Psychological Foundations (3 credits required)**

PSY527 Studies in the Psychology of Adolescence*	3 crs.
TCH575 Child Development *	3 crs.

****V. Educational Foundations (3 credits required)**

EDA503 Educational Foundations- Contemporary Issues	3 crs.
EDA569 Seminar: Diversity in Education	3 crs.

VI. Electives**

EDA574 Finance and the School Principal	3 crs.
EDA508 Graduate Seminar in Instructional Strategies	3 crs.
EDA615 School and Community Relations	3 crs.
EDA620 Thesis	3 crs.

*** All electives require adviser's approval.*

Principal Certification Programs

Post-Master's Degree Curricula Leading to Certification of Elementary/Middle School and Middle/Secondary School Principals

Applicants for admission to the post-master's degree certification program leading to certification as an elementary/middle school principal or middle/secondary school principal shall file with the dean of the School of Graduate Studies an application for admission to the respective program.

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 administration at Shippensburg University shall also provide official transcripts sent to the dean of the School of Graduate Studies by any institution at which the applicant has taken undergraduate or graduate work. Applicants must obtain from the Department of Educational Administration and Foundations and have executed two reference forms. These forms may be obtained by contacting the Department of Educational Administration and Foundations. 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. A statement of purpose for seeking principal certification must also be sent to the

dean of the School of Graduate Studies.
3. Recommendation for admission to the certification program will be determined by the faculty in the Department of Educational Administration and Foundations.

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 adviser, the chair of the educational administration and foundations department, and the dean of the School of Graduate Studies.
4. Prescribed experiences for the certification program must be completed within a three-year period. Requirements for the combined master's degree and certification program must be completed within a nine-year period. These requirements will apply unless an extension is granted for extenuating circumstances by the educational administration and foundations department and the School of Graduate Studies.
5. Individuals pursuing principal certification who have not gone through a candidacy review for the master's degree with the Department of Educational Administration and Foundations at Shippensburg University may be required to complete an oral review. If required, this review must be conducted after completion of six to nine hours of course work.
6. It is essential that the student work closely with his or her adviser 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 the stated competencies of the program and the experiences of the candidate. Each candidate is required to serve parts of the internship in at least two of the following three settings: urban, suburban, or rural. (Arrangements for the practicums should be made a year in advance through the Department of Educational Administration and Foundations.)

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 administration at Shippensburg University will not be required to complete a second master’s degree; however, his or her program will need to include additional courses identified as necessary to attain the required competencies.

EDA545 The Principalship	3 crs.
EDA591 School Law	3 crs.
EDA597 Practicum in Educational Administration	3 crs.
EDA598 Advanced Practicum in Educational Administration	3 crs.
Electives	
EDA574 Finance and The School Principal	3 crs.
EDA508 Graduate Seminar in Instructional Strategies	3 crs.
EDA615 School and Community Relations	3 crs.

Superintendent’s Letter of Eligibility Program

The Superintendent’s Letter of Eligibility enables the holder of this certificate, when requested by a district’s board of education, to be commissioned by the Commonwealth of Pennsylvania to serve in the following role positions within the schools of the Commonwealth of Pennsylvania: district superintendent, assistant district superintendent, intermediate unit executive director, intermediate unit assistant, executive director of an intermediate unit, central office position such as supervisor of curriculum and instruction, and supervisor of pupil personnel services.

The program of studies leading to this certification must address and meet the standards adopted by the Department of Education of the Commonwealth of Pennsylvania governing the issuance of this certificate. The program of studies for this certification at Shippensburg University completely satisfies all standards of the Commonwealth and provides the student completing this program at the university with the knowledge, competencies, and skills needed to function in roles requiring this certification.

It is recognized that individuals desiring to pursue this certification will, in all probability, have had considerable graduate course work in educational administration 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.

A program of studies 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 the 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

1. Applicants shall file an application with the dean of the School of Graduate Studies for admission to this certification.
2. Applicants who did not complete the Master of Education degree in educational administration nor their certification programs at Shippensburg University shall provide an official transcript, sent to the dean of the School of Graduate Studies, by any institution at which the applicant has taken undergraduate or graduate work.
3. 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 administration at Shippensburg University may be required to successfully complete an oral review conducted by the faculty of the Department of Educational Administration and Foundations at Shippensburg University. This review will be conducted after the applicant has taken six (6) hours of graduate work in the Department of Educational Administration and Foundations.
4. Applicants entering the program of studies for the Letter of Eligibility Program shall be required to take a minimum of fifteen (15) credit hours with the educational administration and foundations department at Shippensburg University.
5. Applicants must obtain from the educational administration and foundations department 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 given to another school administrator.

6. Applicants must possess a QPA of at least a 3.0 in all graduate work taken prior to application to this program.
7. Applicants must meet all standards governing admission to graduate education at Shippensburg University and those admission standards established by the Department of Educational Administration and Foundations for this program.
8. Final recommendation for admission to this certification program will be determined by the educational administration and foundations department of Shippensburg University.

Policies for Completing the Superintendent’s Letter of Eligibility Program

1. A 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 a “C” will cause the student to be dropped from this program.
3. Enroll for a minimum of six graduate credit hours per year.
4. Work closely with the student’s adviser while enrolled in this program.
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, 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 Administration and Foundations for students in the Letter of Eligibility program.

Student Advisement of the Superintendent’s Letter of Eligibility Program

1. Applicants for the Letter of Eligibility shall be assigned a faculty adviser by the chair of the Department of Educational Administration and Foundations.
2. It shall be the responsibility of the faculty adviser to promptly meet with the applicant and to review the applicant’s academic records, degrees, and certification held along with past and present professional experiences. The faculty adviser, after consulting with the applicant, shall construct an individualized program of studies for each applicant designed to meet the professional needs of the applicant as well as satisfying the requirements for certification set forth by the Department of Education of the Commonwealth of Pennsylvania and the Department of Educational Administration and Foundations of Shippensburg University.
3. The faculty adviser 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 both the student and the adviser to consult with one another on a continuous basis during the time the student is enrolled in his/her program of studies.
5. The student should seek the advice and counsel of his/her faculty adviser when the need arises. The faculty adviser is the contact person for any questions or concerns the student may have relating to his/her graduate program at Shippensburg University and through the adviser to the educational administration and foundations department if such becomes necessary.
6. The faculty adviser shall be a member of the oral review panel at the completion of the program.
7. The faculty adviser 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 administration and foundations department.
8. The faculty advisor shall be responsible for conducting a final exit review to ascertain the student has met all the requirements of the graduate school, the Department of Educational Administration and Foundations, and the standards for certification established by the Department of Education of the Common-

Shippensburg University

wealth of Pennsylvania prior to recommending this student for certification to the educational administration and foundations department. 9. The faculty of the Department of Educational Administration and Foundations shall review all students' academic records prior to recommending a student to the Department of Education of the Commonwealth of Pennsylvania for the Superintendent's Certification.

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

A minimum of 70 graduate credit hours shall be required prior to the endorsement of the student by the Department of Educational Administration and Foundations for this certification. Of these 70 graduate credit hours, a minimum of 15 graduate credits must be earned at Shippensburg University.

An individualized program of studies shall be constructed for each student that addresses the standards for this certification as set forth by the Commonwealth of Pennsylvania and the academic standards of the Department of Educational Administration and Foundations and the School of Graduate Studies of Shippensburg University.

The program of studies shall consist of the following courses:

I. Administration and Supervision

EDA500 General School Administration	3 crs.
EDA505 Computers and the School Administrator	3 crs.
EDA574 Finance & the School Principal	3 crs.
EDA591 School Law	3 crs.
EDA592 General School Supervision	3 crs.
EDA545 The Principalship	3 crs.
EDA611 The Legal Aspects of Public School Administration *	3 crs.
EDA612 Organizational and Management Theory for the School Administrator *	3 crs.
EDA613 Educational Facilities and Plant Management *	3 crs.
EDA614 Business and Finance in Public Education *	3 crs.
EDA615 School and Community Relations *	3 crs.
EDA616 Negotiations and Personnel Management in Public Education *	3 crs.
EDA617 Policy, Administration, and Governance Issues in School Administration *	3 crs.
EDA597 Practicum in Educational Administration	3 crs.
EDA598 Advanced Practicum in Educational Administration	3 crs.

EDA601 Practicum in Central Office Administration	3 crs.
EDA602 Practicum in Central Office Administration	4 crs.
EDA603 Practicum in Central Office Administration	5 crs.
EDA604 Practicum in Central Office Administration	6 crs.

II. Curriculum and Instruction

EDA501 Curriculum for School Leaders K-12	3 crs.
EDA530 Instructional Leader in the Middle School	3 crs.
EDA618 Curriculum Theory and Development *	3 crs.
EDA512 Curriculum in the Modern Secondary School	3 crs.
EDA508 Graduate Seminar in Instructional Strategies	3 crs.
TCH511 Elementary School Curriculum	3 crs.

III. Research and Measurements

EDA580 Statistical Methods in Education	3 crs.
EDA600 Research for School Administrators	3 crs.

IV. Psychological Foundations

PSY500 Advanced Research Design and Statistics	3 crs.
PSY512 Theories of Learning	3 crs.
PSY519 Life Span Psychology	3 crs.
PSY527 Studies in the Psychology of Adolescence	3 crs.
TCH575 Child Development	3 crs.

V. Educational Foundations

EDA503 Educational Foundations-Contemporary Issues	3 crs.
EDA569 Seminar: Diversity in Education	3 crs.

** Required courses for the Superintendent's Letter of Eligibility.*

Supervisory Certification Programs

Post-master's degree programs leading to the Supervisory 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
- Library Science
- Mathematics
- Reading
- Science
- Social Studies
- Special Education

Requirements vary according to specialty area, with a minimum of 21 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 dropped from this program.

Requirements for Admission to the Supervisory Program

1. An earned master's degree and/or at least 15 graduate credit hours in subject field or educational specialist area.
2. Obtain and execute two reference forms from the educational administration and foundations department. 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. Approval by the School of Graduate Studies on the recommendation of the chair of the Department of Educational Administration and Foundations. The admission letter will outline each student's program, including any additional requirements needed.

Requirements for the Supervisory I Certificate

The candidate shall:

1. Be required to take six to nine graduate credit hours in the field of supervision in the Department of Educational Administration and Foundations to qualify for a practicum experience. (A minimum of 15 credit hours is required at Shippensburg University for the student to be recommended for certification.)
2. Have completed the appropriate curriculum outlined in the letter of admission.
3. Hold and present a copy of an Instructional II or Educational Specialist II certificate in the subject area in which the supervisory certificate is desired.
4. Have completed a recent graduate research course in the appropriate field or show evidence of having completed comparable applied research in the field.
5. Have completed five years of successful professional experience in the supervisory area desired prior to being recommended for certification.

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

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.

CNS512 Group Counseling Leadership Skills	3 crs.
CNS581 Counselor Supervision	3 crs.
EDA500 General School Administration	3 crs.
EDA591 School Law	3 crs.

University Curricula

EDA592 General School Supervision	3 crs.
EDA597 Practicum in Educational Administration	3 crs.
EDA501 Curriculum for School Leaders K-12	3 crs.
EDA508 Graduate Seminar in Instructional Strategies	3 crs.
OR	
EDA505 Computers and the School Administrator	3 crs.
OR	
EDA574 Finance and the School Principal	3 crs.

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

EDA501 Curriculum for School Leaders K-12	3 crs.
EDA591 School Law	3 crs.
EDA500 General School Administration	3 crs.
EDA592 General School Supervision	3 crs.
EDA597 Practicum in Educational Administration	3 crs.
TCH511 Elementary School Curriculum	3 crs.
EDA508 Graduate Seminar in Instructional Strategies	3 crs.
OR	
EDA505 Computers and the School Administrator	3 crs.
OR	
EDA574 Finance and the School Principal	3 crs.

Social Work and Gerontology Department

Anne Gero, Ph.D., *Chair, Department of Social Work and Gerontology*
 Richard Wiscott, Ph.D., *Director of Gerontology* (717-477-1342)
 Denise Anderson, Ph.D.
 Robert Hewitt, Ph.D.
 Deborah Jacobs, Ph.D.
 Michael Lyman, M.S.W., A.B.D.
 Helen B. Miltiades, Ph.D.
 Winfrey M. Ruffin, Jr., Ph.D.

Programs Offered

The Applied Gerontology program prepares students from diverse backgrounds and fields to recognize the opportunities that an increasingly aging society provides. Offering both a post-baccalaureate Graduate Certificate in Aging and a Master's of Science in Applied Gerontology, this program prepares students to

serve older adults in the careers of their choosing. Students will receive a solid foundation in aging studies, supplemented by application of the course content to their respective career tracts. Upon completion of the degree, students will be prepared to work in a variety of settings (e.g., social services, business, government), and possess the ability to work for and on behalf of older citizens.

By definition, gerontology is a multi-disciplinary field. Understanding the aging process, older individuals, and issues relevant to later life require analysis through broad perspectives (e.g., biological, economic, psychological, sociological). To meet this aim, three primary goals (A.G.E.) embody the philosophy of this program:

1. Our curriculum is *applied and practical in nature*. Each course is designed to provide students with knowledge, skills, and abilities that can be used in diverse career settings. Additionally, a strong theoretical foundation necessary for translating scientific theory into practical applications will be provided in each course.
2. Each course incorporates *goal-oriented relevance so that students from diverse backgrounds can incorporate class material into their chosen careers*. In each gerontology course, students complete class assignments and projects that are directly applicable to their current or anticipated career choice.
3. An on-going *emphasis on linking academic content to applied experiences for advancing professional development*. Students completing the degree will be well prepared to work with older adults in a variety of settings.

On-Line Features

Each gerontology course combines traditional and innovative teaching pedagogies. Students will spend 33% of class time in the traditional classroom. This facilitates faculty-student and student-student interaction and provides an atmosphere of team building and community that contributes to the learning process.

The majority of class time (67%) is spent in a virtual environment. Through the use of the Internet, students will view web-cast 'mini-lectures' (i.e., short 3-5 minute lectures where important concepts are explained and illustrated) and case study vignettes. Web-based

activities emphasizing course content are designed so that students can apply these concepts to career-specific applications. The virtual classroom environment will also rely heavily on discussion boards where students and faculty will share ideas and engage in constructive debate. Finally, in many of the gerontology courses, students will use technology in the dissemination of information (i.e., creation of web page or other multimedia tool).

Admission to the Program

Admissions criteria for the Applied Gerontology program adheres to general requirements set forth by the graduate school. No prior undergraduate coursework or practical experience in the field of aging is required to be considered for admission. Student possessing a bachelor's degree in any field will be eligible to apply. Applicants who have taken a minimum of five gerontology courses at the undergraduate level or have a minimum of five years professional experience in the field of aging can have three credit hours of coursework waived for either the M.S. or Certificate options.

Specifically, individuals applying for the Applied Gerontology Program must:

1. Complete the university graduate school application (including transcripts and fees)
2. Have a minimum undergraduate GPA of 2.75 (If GPA is below 2.75, an interview with the Applied Gerontology graduate faculty is required).
3. Complete the Applied Gerontology program application, including
 - a. Information Sheet
 - b. Writing sample (using essay form provided)
 - c. Résumé
 - d. Waiver of Three-Semester Credit Hours Form (if applicable)
4. M.S. in Applied Gerontology only:
 - a. Three letters of professional reference (forms provided)

The GRE or MAT is strongly encouraged but not required. International students are required to submit TOEFL (Test of English as a Foreign Language) scores.

Applied Gerontology (M.S.)

Students enrolled in the M.S. in Applied Gerontology program are required to complete coursework in four essential skill areas comprising 33 hours of credit:

- A. Understanding Diverse Aging Individuals
12 credit hours
- B. Understanding Societal Reactions to Aging
6 credit hours
- C. Proficiency in Advanced Problem Solving
6 credit hours
- D. Professional Skills in Working With Older People
9 credit hours

Overall, the four areas are designed to provide the comprehensive foundation needed to work effectively in the field of gerontology. Through the core offerings, students will be provided with a cohesive perspective on the role of applied gerontology professionals. Through the elective courses, students will be exposed to domain-specific content information. Faculty will work with each student to integrate class material into practical career-oriented applications. Additionally, in each course, students will participate in individual and interdisciplinary group assignments that promote a deeper understanding of the relationship between gerontology and their careers. Together, this combination ensures solid professional training at the graduate level.

As a requirement for the degree, all students will complete either an applied internship placement that focuses on working with and/or advocating for older adults, or a formal thesis with an applied gerontology theme. Through the capstone experience, students will create a project based on their research or field placement.

The academic rigor of this program meets the guidelines outlined by the Association for Higher Education in Gerontology for graduate level instruction in the field of aging. By setting high standards, completion of the M.S. in Applied Gerontology will ensure career-oriented professionals are well qualified to serve older adults. In addition, it will also effectively prepare the small, but significant, number of students expected to pursue advanced graduate (e.g., doctoral) level training.

University Curricula

ESSENTIAL SKILL AREA A: Understanding the Diverse Aging Individual (12 hours)

Required:

GRN511 Foundations of Applied Gerontology II: Cognitive Aging, Mental Health, and Wellness 3 crs.

GRN512 Foundations of Applied Gerontology III: Biological Aging, Physical Health, and Wellness 3 crs.

Electives (Students take two):

GRN480 Valuing Diversity in Later Life 3 crs.

GRN481 Reflecting on the Impact of Gender in Later Life 3 crs.

GRN482 Using Spirituality to Promote Optimal Aging 3 crs.

PYS420 Health Psychology 3 crs.

PSY435 Psychopharmacology 3 crs.

PSY519 Life Span Psychology 3 crs.

PSY529 Psychology Of Senescence (Successful Aging) 3 crs.

SWK420 Gender Issues for Helping Professionals 3 crs.

SOC5XX Leadership and Diversity 3 crs.

ESSENTIAL SKILL AREA B: Understanding the Social Context of Aging (6 hours)

Required:

GRN510 Foundations of Applied Gerontology I: The Social Context of Aging 3 crs.

or

GRN610 Advancing Social and Public Policy in Gerontology 3 crs.

Students take any one:

PLS512 Intergovernmental Relations and Programs 3 crs.

PLS603 Public Policy Analysis 3 crs.

SWK450 Social Welfare Policies and Services 3 crs.

ESSENTIAL SKILL AREA C: Proficiency in Advanced Problem Solving (6 hours)

Prerequisite (take one):

GRN483 Using Applied Statistics in Gerontology Professions 3 crs.

CNS600 Research and Statistics 3 crs.

COM600 Introduction to Mass Communication Research 3 crs.

PSY500 Advanced Research Design and Statistics 3 crs.

Take one:

GRN484 Evaluating Gerontology Programs, Services, and Products 3 crs.

GRN520 Thinking Critically for Gerontology Professionals 3 crs.

GRN621 Creating Successful Models of Aging 3 crs.

PLS504 Ethics for Public Service Managers 3 crs.

ESSENTIAL SKILL AREA D: Professional Skills in Working with Older People (9 Hours)

Required:

GRN650 Applied Projects and Research in Aging (Practicum) 3 crs.

GRN651 Integrating Gerontology into Professional Careers (Capstone) 3 crs.

Electives (take one):

GRN640 Attracting & Keeping Older Clientele 3 crs.

GRN641 Managing an Older Workforce 3 crs.

CNS559 Introduction to Helping Services 3 crs.

CNS564 Grief & Loss Issues in Counseling 3 crs.

COM400 Public Relations Writing 3 crs.

COM570 Fund Raising and Association Public Relations 3 crs.

MBA552 Entrepreneurship 3 crs.

MBA593 Strategic Management 3 crs.

SOC5XX Leadership, Change, & Innovation 3 crs.

Additional Course

GRN690 Learning Something New: Advanced Selected Topics in Aging 3 crs.

(can be used in any of the above essential skill areas depending on topic)

The 400-level courses are also available for undergraduate credit. Graduate students may not take more than 12 hours of credit at the 400-level.

Post-Baccalaureate Certificate in Aging

The Applied Gerontology program offers a post-baccalaureate Graduate Certificate in Aging available to students who choose not to pursue a master's degree, but who wish to gain a concentration in a particular area. This 15-hour (5 class) certificate has practicality, relevance, and flexibility as primary goals.

Students will be required to take two of three foundation courses. Electives chosen from M.S. level course offerings will comprise the remainder of the certificate. This flexibility allows students to choose coursework leading to a unique specialization in gerontology relevant to their professional goals. All certificate courses count towards the Master of Science in Applied Gerontology, if students wish to apply at later date.

Although students can complete any five courses to be awarded the Graduate Certificate in Aging, it is highly recommended a cluster approach be taken. Students are encouraged to take a series of classes that develop professional skills in a particular specialty. Most courses are offered at least once every two years. Concentrations are currently available in:

- Aging & Business
- Aging & Diversity
- General Aging
- Gerontology Research
- Wellness
- Public Policy
- Program Evaluation

Applied Experiences

Through our gerontology courses, students are provided with opportunities to gain experience working with older adults and current aging-related issues in various community settings such as local senior centers, churches, and volunteer organizations.

Students are also encouraged to become involved early in their graduate careers with one of the many applied research projects being conducted by our faculty. Examples of current applied gerontology research projects include aging attitudes and stereotypes, employee satisfaction in long-term care, intergenerational relationships, the use of pets as therapeutic tools, and substance use and abuse in later life.

For more in-depth applied experiences, a wide range of internship sites are available to students in the program (e.g., social service agencies, government offices, professional organizations, local businesses).

Teacher Education Department

Elizabeth J. Vaughan, Ph.D., *Chair, Department of Teacher Education* (477-1688)

- Julie Q. Bao, Ph.D.
- David F. Bateman, Ph.D.
- Thomas B. Bradley, D.Ed.
- Janet Bufalino, Ed.D.
- Kent Chrisman, Ed.D.
- Donna Couchenour, Ph.D.
- Phillip Diller, M.A.
- Linda A. Hoover, Ph.D.
- Carol L. Kahle, Ed.D.
- Tracey Knarr, Ed.D.
- Alice Pauline Kuhns, Ed.D.
- Randall Pellow, Ed.D.
- Rebecca W. Pettit, Ph.D.
- Vonnie Ryland, Ph.D.
- Gerald E. Stafford, Ph.D.
- George L. Strine, Ed.D.
- Gwendolyn Swingler, M.S.
- Yvonne D. Taylor, Ed.D.
- Mary Jane Urbanowicz, Ed.D.
- Brenda Wheeler, D.Ed.
- Cheryl H. Zaccagnini, Ed.D.
- James Zullinger, M.Ed.

Programs Offered

The teacher education department offers graduate programs leading to the Master of Education degree in these areas: early childhood education, reading, and special education. The graduate program in reading includes certification as a reading specialist. The graduate program in early childhood education includes three options: (1) the Master of Education degree with no certification; (2) the Master of Education degree with early childhood certification for those who have elementary, special education, or middle school certification; and (3) the Master of Education degree with early childhood certification for those without a certification as listed above. The department offers graduate programs in special education with two options: (1) the Master of Education degree with comprehensive certification in mentally and/or physically handicapped (M/PH); and (2) the Master of Education degree without certification with an emphasis in learning disabilities (LD), mental retardation (MR) or behavior disorders (BD).

Curriculum and Instruction (M.Ed.)

The Curriculum and Instruction master's degree program is intended for individuals who already possess a certification in teaching. Its purpose is to foster teacher growth through exploration of principles of theory and practice which enhance teaching. The program consists of a core of 18 credits which focus on four critical areas embedded in effective teaching: curriculum and assessment (3 credits), effective teaching and leadership (6 credits), the learner (6 credits), and research (3 credits). An additional cluster of courses (18 credits) allows each student to tailor their program toward their teaching interests and/or situation. Clusters include: early childhood education, elementary education, middle-level education, secondary biology, secondary English, secondary geography/Earth science, and secondary history.

Admission Requirements

A student applying for admission to a teacher education program in elementary education, reading, or early childhood education must have a quality point average of 2.75 or greater to be admitted. Applicants who do not have a quality point average of 2.75 or greater are required to obtain an approved score on the Miller Analogies Test (MAT) prior to admission. An acceptable MAT score is the same as required by the graduate school.

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 the department with 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 October 1. If the applicant is interested in starting in the summer semester(s) all materials must be received by March 1. If applicants are interested in starting in the Fall semester all materials must be received by June 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.
3. Applicants to the comprehensive certification program in special education and 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. Along with the application to the graduate school, the applicant will receive a packet of materials from the Special Education Program 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 special education faculty.
8. Each applicant will be required to submit a writing sample during the interview. Following the interview each applicant will be assessed by the special education program committee with regard to overall performance on the writing sample, and 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 adviser.

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.

Graduate Comprehensive Examination

The teacher education department requires all graduate students pass a comprehensive examination to qualify for graduation. This examination should be taken after successful completion of the core courses for the area of specialization as listed on the planning sheet.

The graduate comprehensive examination will be offered on the first Saturday in November and the first Saturday in March of each academic year, and the first Saturday in Term V of the department's offerings. Students must register for this examination. Registration for the November exam must be completed before October 1. For the March exam registration must be completed before February 1. Registration for the summer exam must be completed before June 1. Application forms and the complete policy guidelines are available in the teacher education department office.

Examinations will be composed of four questions/items based on issues, principles, or materials relevant to the area of specialization. A list of discussion questions will be available for students. The examination will be read by at least two qualified faculty members. A satisfactory rating must be received on each item. Items (questions) will be scored on a pass/fail basis. If an unsatisfactory rating is received for an item, the student may petition to retest on the specific area of that item or register to retake the entire examination in a subsequent semester. An interview may be required prior to re-examination. The student may retest only once.

Notification of performance will be mailed to students completing the examination no later than the beginning of the month following the examination. An alternative culminating experience may be approved with advisement.

Elementary Education Supervisor

For information concerning the post-master's degree program leading to Pennsylvania certification as an Elementary Education Supervisor, refer to the educational administration and foundations department.

Early Childhood Concentration

The graduate program in early childhood education emphasizes child development and family theory and practice. Most courses will have a balance of theory, research, and practical application. A minimum of 33 hours is required for the Master of Education Early Childhood Concentration.

Option A. Requirements for Master's Degree in Early Childhood Education. (No certification)

I. ALLIED ELECTIVES 3-6 credits elected with advisement from the following courses:

- CNS559 Introduction to the Helping Services 3 crs.
- CNS564 Grief and Loss Issues
in Counseling 3 crs.
- EDA569 Seminar: Diversity in Education 3 crs.
- SWK450 Social Welfare Policies and Services 3 crs.
- SWK490 Selected Topics in Social Welfare 3 crs.
- SOC510 The Family 3 crs.
- Women's Studies course at the 400 level 3 crs.
- Elective outside major with adviser's approval 3 crs.

II. PROFESSIONAL EDUCATION

3-6 credits elected with advisement from the following courses:

- EEC411 Introduction to Exceptionality 3 crs.
- EEC474 Educational Needs of the Gifted
Student 3 crs.
- EEC550 Foundations of Learning Disabilities 3 crs.
- EEC551 Teaching Children with Specific
Learning Disabilities 3 crs.
- RDG490 Selected Topics 3 crs.
- RDG528 Foundations of Literacy
Development 3 crs.
- TCH511 Elementary School Curriculum 3 crs.
- TCH575 Child Development 3 crs.

III. RESEARCH—TCH600 required of all candidates (3-9 credits):

- TCH600 Elements of Research 3 crs.
- TCH612 and TCH613 Thesis I and II
(in place of 6 hours of course work from
Field of Specialization, with adviser's approval).

IV. FIELD OF SPECIALIZATION

24 credits elected with advisement from the following courses:

- ECH460 Family School and Community
Partnerships* 3 crs.
- ECH461 Assessment in Early Childhood* 3 crs.
- ECH510 Including Children with Special
Needs in Early Childhood Education 3 crs.
- ECH520 Social and Emotional Development
in Early Childhood 3 crs.

Shippensburg University

ECH530 Cognitive and Language Development in Early Childhood	3 crs.
ECH540 Families and Early Childhood Education	3 crs.
ECH563 Administration and Supervision of Early Childhood Programs	3 crs.
ECH577 Early Childhood Curriculum	3 crs.
TCH570 Perceptual-Motor Development in Early Childhood	3 crs.
Three 1-credit specialty courses	3 crs.

* Required for state certification and must be taken as part of block in Option B.

Option B.

Required for Pa. Early Childhood Certification (*for those who have Elementary, Special Education, or Middle School Certification*).

Meet all requirements for Option A. Twelve credit-hour block, including:

ECH462 Practicum in Early Childhood Education	3 crs.
ECH340 Teaching the Preoperational Learner	3 crs.
ECH460 and ECH461 listed under IV. Field of Specialization	6 crs.

Option C. Required for state early childhood certification for those without a certification as listed in Option B.

Meet all requirements for Option A.

Meet all requirements for Option B.

ECH215 Child Care and Learning	6 crs.
ECH240 Activity Based Primary Curriculum	
EDU391 Student Teaching	

Transcripts will be evaluated individually. Additional course work may be required.

Early Childhood Supervisor

For information concerning the post-master's degree program leading to Pennsylvania certification as an Early Childhood Education Supervisor, refer to the Educational Administration and Foundations Department.

Special Education (M.Ed.)

A graduate program which 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 the official transcripts of the student. 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 adviser 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 comprehensive certification in special education 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: with Comprehensive Certification in Learning Disabilities in Mental Retardation in Behavior Disorders

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

University Curricula

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

COURSE REQUIREMENTS: Master of Education degree with *Comprehensive Certification* *

Core Courses (18 credits)

TCH475 Inclusive Education: A Practical Approach for Educators	3 crs.
EEC513 Medical and Psychological Aspects of Disability	3 crs.
EEC544 Formal/Informal Assessment of Individuals with Exceptionalities	3 crs.
EEC545 Proactive Approaches for Classroom and Behavior Management	3 crs.
EEC547 Instructional Content and Practices for Special Education	3 crs.
TCH600 Elements of Research	3 crs.

***Specialty Knowledge and Skills* (18 credits)**

EEC550 Foundations of Learning Disabilities	3 crs.
EEC551 Programming and Instruction for Individuals with Learning Disabilities	3 crs.
EEC560 Foundations of Mental Retardation/Development Disabilities	3 crs.
EEC561 Programming and Instruction for Individuals with Mental Retardation/Developmental Disabilities	3 crs.
EEC570 Foundations of Behavior Disorders	3 crs.
EEC571 Programming and Instruction for Individuals with Behavior Disorders	3 crs.

***Practicum and Seminar* (6 credits)**

EEC590 Practicum I	3 crs.
EEC591 Practicum II	3 crs.

Total Program Hours for Comprehensive Certification 42

Background Courses (*may be required based upon deficiencies identified through transcript analysis*)

EEC411 Introduction to Exceptionalities	3 crs.
RDG528 Foundations of Literacy	

Development	3 crs.
TCH511 Elementary School Curriculum	3 crs.
TCH575 Child Development	3 crs.
PSY527 Studies in the Psychology of Adolescence	3 crs.
EDA512 The Curriculum in the Modern Secondary School	3 crs.

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

COURSE REQUIREMENTS: Master of Education degree in *Learning Disabilities (without certification)* **

Core Courses (18 credits)

TCH475 Inclusive Education: A Practical Approach for Educators	3 crs.
EEC513 Medical and Psychological Aspects of Disability	3 crs.
EEC544 Formal/Informal Assessment of Individuals with Exceptionalities	3 crs.
EEC545 Proactive Approaches for Classroom and Behavior Management	3 crs.
EEC547 Instructional Content and Practices for Special Education	3 crs.
TCH600 Elements of Research	3 crs.

***Specialty Knowledge and Skills* (6 credits)**

EEC550 Foundations of Learning Disabilities	3 crs.
EEC551 Programming and Instruction for Individuals with Learning Disabilities	3 crs.

***Practicum and Seminar* (3 credits)**

EEC590 Practicum I	3 crs.
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Elective(s)

TBA	3 crs.
TBA	3 crs.

Total Program Hours for masters degree 33

** Program total is a minimum of 33 credits plus background credits. Elective courses may be chosen with advisement. Background courses are not counted in the 33 credit total.

Shippensburg University

COURSE REQUIREMENTS: Master of Education degree in *Mental Retardation/Developmental Disabilities (without certification)* ***

Core Courses (18 credits)

TCH475 Inclusive Education: A Practical Approach for Educators	3 crs.
EEC513 Medical and Psychological Aspects of Disability	3 crs.
EEC544 Formal/Informal Assessment of Individuals with Exceptionalities	3 crs.
EEC545 Proactive Approaches for Classroom and Behavior Management	3 crs.
EEC547 Instructional Content and Practices for Special Education	3 crs.
TCH600 Elements of Research	3 crs.

Specialty Knowledge and Skills (6 credits)

EEC560 Foundations of Mental Retardation/Development Disabilities	3 crs.
EEC561 Programming and Instruction for Individuals with Mental Retardation/Developmental Disabilities	3 crs.

Practicum and Seminar (3 credits)

EEC591 Practicum II	3 crs.
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Elective(s)

TBA	3 crs.
TBA	3 crs.

Total Program Hours for masters degree 33

*** Program total is a minimum of 33 credits plus background credits. Elective courses may be chosen with advisement. Background courses do not count toward the 33 credit program.

COURSE REQUIREMENTS: Master of Education degree in *Behavior Disorders (without certification)* ****

Core Courses (18 credits)

TCH475 Inclusive Education: A Practical Approach for Educators	3 crs.
EEC513 Medical and Psychological Aspects of Disability	3 crs.
EEC544 Formal/Informal Assessment of Individuals with Exceptionalities	3 crs.
EEC545 Proactive Approaches for Classroom and Behavior Management	3 crs.
EEC547 Instructional Content and Practices for Special Education	3 crs.
TCH600 Elements of Research	3 crs.

Specialty Knowledge and Skills (6 credits)

EEC570 Foundations of Behavioral Disorders	3 crs.
EEC571 Programming and Instruction for Individuals with Behavioral Disorders	3 crs.

Practicum and Seminar (3 credits)

EEC590 Practicum I	3 crs.
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Elective(s)

TBA	3 crs.
TBA	3 crs.

Total Program Hours for masters degree 33

**** Program total is a minimum of 33 credits plus background credits. Elective courses may be chosen with advisement. Background courses do not count toward the 33 credit program.

Special Education Supervisor

For information concerning the post-master's program leading to Pennsylvania certification as a Special Education Supervisor, refer to the educational administration and foundations 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. This degree program requires the completion of a minimum of 33 graduate semester hour credits.

Graduate programs are also offered leading to certification of reading specialists and reading supervisors. The requirements are stated with the outline of each program.

Master of Education Degree

Applicants for admission to a master's program in reading will be expected to be fully certified to teach in the public school.

Each student is required to have a planning sheet approved by his or her adviser on file.

Students who have elementary or secondary certification are required to complete a minimum of 33 semester hour credits of graduate work for the Master of Education degree with specialization in reading. Additional course work may be required due to deficiencies in undergraduate preparation. Background courses which may be required could include (but are not limited to) the following: Children's Literature; undergraduate Teaching of Reading course; Language Arts course; Assessment course; Multicultural course. **Please note: Background courses are in addition to graduate program requirements.**

Admission into our Reading program will be offered at three times during each academic year: October 1, for students beginning study in Spring term; March 1, for students beginning study in Summer sessions; and June 1, for students beginning study in Fall term.

To be considered for admission, applicants should provide the following documents: an application to our graduate school; all transcripts of undergraduate/graduate work; three letters of reference from educators in the field; and an information sheet. Upon receipt of all required documentation, candidates will be interviewed by a member of the Reading faculty from the Teacher Education Department.

A "B" average is required for the completion of the master's degree and a minimum grade of "B" must be attained in RDG528, RDG529 and RDG532. In addition, to qualify for certification as a reading specialist, the student must obtain a minimum grade of "B" in each course required for this certification.

I. PROFESSIONAL EDUCATION (3 credits)

- EDA569 Seminar: Diversity in Education 3 crs.
- RDG490 Selected Topics in Reading 3 crs.
- RDG601 Language Development Theory 3 crs.
- RDG602 Reading Thoughts and Processes 3 crs.
- Other electives with advisement

II. CORE COURSES (9 credits)

- TCH511 Elementary School Curriculum 3 crs.
- TCH575 Child Development 3 crs.
- EEC411 Introduction to Exceptionality 3 crs.
- or
- EEC474 Educational Needs of the Gifted Student 3 crs.
- or
- EEC550 Foundations of Learning Disabilities 3 crs.

III. FIELD OF SPECIALIZATION (18-21 credits)

- RDG528 Foundations of Literacy Development 3 crs.
- RDG529 Reading and Reasoning Beyond the Primary Grades 3 crs.
- RDG532 Diagnosis and Assessment in Reading 3 crs.
- RDG533 Advanced Diagnosis and Assessment in Reading 3 crs.
- RDG534 Laboratory Practicum in Reading 3 crs.
- RDG535 Seminar in Literacy, Language, and Reading 3 crs.
- TCH600 Elements of Research (Research proposal must be done in the area of Reading) 3 crs.

IV. ALLIED ELECTIVES

Students working toward a Reading Specialist's certificate must meet a competency regarding students who use dialects or non-standard English. This may be accomplished by either taking an independent study course, an appropriate "selected topics" course, or an in-service course of at least one credit hour equivalent or taking TCH255, Multicultural Issues and Strategies in Basic Education. If students have not had a course in contemporary children's or adolescent literature, they will be required to take RDG422, Studies in Children's Literature.

Shippensburg University

Reading Supervisor

For information concerning the post-master's degree program leading to Pennsylvania certification as a Reading Supervisor, refer to the educational administration and foundations department.

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 will be 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	3 crs.
RDG601 Language Development Theory	3 crs.
RDG605 Reading Recovery Teacher Training I	3 crs.

Spring semester

RDG555 Practicum in Assessment	3 crs.
RDG602 Reading Thoughts and Processes	3 crs.
RDG606 Reading Recovery Teacher Training II	3 crs.

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. Peggy Hockersmith, Site Coordinator for Reading Recovery and Associate Dean/Director of Field Services, College of Education and Human Services, at 717-477-1373.

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 at (717) 477-1373 for information on teacher training sites.

Course descriptions are organized in alphabetical order by subject. Information on courses can be found under appropriate headings in the following sequence:

ACC	Accounting
ART	Art
BIO	Biology
BIS	Business Information Systems
MBA	Business Administration
CHM	Chemistry
COM	Communication/Journalism
CPE	Computer Education
CPS	Computer Science
CNS	Counseling
CRJ	Criminal Justice
DSI	Decision Sciences
ECH	Early Childhood Education
ESS	Earth Science
ECN	Economics
EDU	Education
EDA	Educational Administration
ENG	English
FIN	Financial Administration
FRN	French
GEO	Geography
GRN	Gerontology
HIS	History
MGT	Management
MIS	Management Information Systems
MKT	Marketing
MAT	Mathematics
MUS	Music
PHL	Philosophy
PHY	Physics
PLS	Political Science
PSY	Psychology
RDG	Reading
SWK	Social Work
SOC	Sociology
SPN	Spanish
EEC	Special Education
SPE	Speech
TCH	Teacher Education

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 FINANCIAL ACCOUNTING AND REPORTING III (3 CREDITS)

Third in a sequence of three courses involving an intensive study of accounting concepts, theories, and practices relative to external financial reporting. Topics considered include accounting for pensions and leases, financial reporting and changing prices, mergers, consolidated financial statements, foreign currency transactions, and translating foreign currency financial statements. Issues relating to full disclosure and the role of the Securities and Exchange Commission and professional accounting organizations in financial reporting are considered. Prerequisite: *ACC302* ("C" grade or better).

ACC404 AUDITING (3 CREDITS)

Introduction to the standards and procedures employed by the professional accountant 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* ("C" grade or better).

ACC418 ACCOUNTING INFORMATION AND CONTROL SYSTEMS (3 CREDITS)

Designed to provide the student with an understanding of the accounting function as a subsystem within the total management information system. Consideration is 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 is on the relationship of the information needs of management to the classification of data and the design of the accounting system. Prerequisite: *ACC312* ("C" grade or better).

Art (ART)

ART425 COMPUTER DESIGN IV (3 CREDITS)

Is the fourth level course taught on the Macintosh computer. Students will learn 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 will learn how 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 to it. 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. The content in this course includes techniques directed at creating visually strong multimedia productions. Prerequisite: *ART217*.

Biology (BIO)

BIO409 IMMUNOLOGY (3 CREDITS)

Introduction to the field of immunology, including immunity, serology, immunochemistry, and immunobiology. Other topics include immunodeficiency diseases, tumor immunology, transplantation immunology, autoimmune diseases, and allergies. (*Three lecture hours/week.*) Prerequisites: Principles of Biology, Zoology, & Microbiology or permission of the instructor.

BIO413 MARINE ICHTHYOLOGY (3 CREDITS)

Study of the internal and external structure of fishes, their systematic and ecological relationships, and their distribution in time and space. *Taught only at WIMSC during summers.*

BIO417 HERPETOLOGY (3 CREDITS)

Introduction to the study of amphibians and reptiles including their classification, evolution, functional morphology, ecology, and husbandry. Laboratory work includes anatomical study, identification, and field trips. (*Two periods lecture and one period lab/week.*) Prerequisites: Principles of Biology and Zoology or permission of instructor.

BIO423 PLANT PATHOLOGY (3 CREDITS)

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. Prerequisites: Principles of Biology and Botany.

BIO425 BIOTA OF FLORIDA (2 CREDITS)

Seminar/field course deals with the biology of warm temperate and subtropical Florida including vegetation, fauna, geology, history, and economy. Offered spring semester of odd-numbered years, it requires a single weekly class meeting plus an intensive ten-day field trip to parks, natural areas, and refuges in Florida over springbreak. Field trip costs for the student include food, entrance and camping fees. Prerequisite: Biology major with junior standing or permission of instructors.

BIO442 HYDROBIOLOGY (3 CREDITS)

Introductory course in fresh water ecology. Field work consists of the study of selected aquatic environments and includes methods of collecting data, identification of aquatic organisms and the interpretation of factors which influence their distribution. A paper based upon field work is required. Prerequisites: Principles of Biology, Zoology, and Botany or graduate status.

BIO444 CONSERVATION BIOLOGY

(3 CREDITS)

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.*) Course includes midweek and weekend field trips. Prerequisites: college course in ecology or wildlife biology, or either senior or graduate status in the biology department.

BIO446 ECOLOGY OF MARINE PLANKTON

(3 CREDITS)

Deals with the phytoplankton of near shore and pelagic waters. The importance of phytoplankton in energy flow is emphasized. *Taught only at WIMSC during summers.*

BIO448 FIELD BOTANY AND PLANT TAXONOMY (3 CREDITS)

Deals with the principles of classification and systematics of vascular plants, with an 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 the principles and literature of plant systematics and ecology. Memorization of selected, local species is required. Field trips include several local excursions plus a weekend trip to the Delmarva Peninsula and two Saturday trips to natural areas in Pennsylvania. Prerequisite: Principles of Biology or Basic Biology or permission of the instructor.

BIO450 ENDOCRINOLOGY (3 CREDITS)

Study of the glands of internal secretion and their biochemical and physiological role in development, growth, metabolism, homeostasis and reproduction of animals. Prerequisite: Human Physiology or permission of instructor.

BIO455 ALGAE AND AQUATIC PLANTS (3 CREDITS)

Lectures and laboratories explore the structure, function, diversity, and economic importance of algae plus the aquatic groups of fungi, bryophytes, and vascular plants. Laboratories emphasize the use of technical keys and include collecting techniques plus a Saturday field trip in early September. Prerequisites: Principles of Biology and Botany or permission of the instructor.

BIO462 INVERTEBRATE ZOOLOGY (3 CREDITS)

Synopsis of the phylogeny, classification and important adaptive features of major and minor invertebrate phyla. Emphasis is placed on taxonomy and a comparative study of the morphology, composition, and functioning of the animal organ systems or their operational equivalent, as they occur in a broad representation of invertebrate groups, to include patterns of development, reproductive strategies, and life history adaptations. Prerequisites: Upper division standing, graduate status, or permission of instructor. Graduate students enrolled in this class will be required to complete additional course requirements.

BIO462 VERTEBRATE ZOOLOGY (3 CREDITS)

Explores the diversity, function, and phylogenetic relationships among the vertebrate animals. Graduate students are required to submit a research paper on a topic approved by the instructor in addition to other course

requirements. Two hours lecture and two hours lab/week. Prerequisites: Principles of Biology I and II or graduate standing, or permission of the instructor.

BIO485 BIOLOGICAL MICROSCOPY AND IMAGING (3 CREDITS)

This course covers principles and techniques in macrophotography, light microscopy, especially microphotography and videography, and scanning electron microscopy (SEM). Students will learn specimen handling and preparation including basic theory and practice in fixation, dehydration, dark room techniques, and computer imaging. Students are expected to perform basic maintenance and alignment of the SEM. A research project is required of all students. Prerequisites: Upper division or graduate standing or permission of instructor. Graduate students enrolled in this class will be required to complete additional course requirements.

BIO491 SELECTED TOPICS (1-3 CREDITS)

Opportunity for the department to offer courses in areas of departmental major interest which are not covered by the regular courses.

BIO494 FIELD RESEARCH TECHNIQUES (3 CREDITS)

This course provides an overview of methods for investigating biological field problems. Students will learn to use a variety of techniques in field conditions. Collection, analyses, and interpretation of data will be emphasized. Methods applied in current professional literature will be discussed. Prerequisites: Graduate or upper division standing or permission of instructor. Graduate students enrolled in this class will be required to complete an independent project culminating in a written report.

BIO501 TOPICS IN EVOLUTIONARY BIOLOGY (3 CREDITS)

Overview of selected contemporary issues in evolutionary biology. Class time divided between lectures and student-led discussions, which focus on topics of current interest in evolutionary biology. Prerequisite: undergraduate degree in biology or permission of instructor.

BIO513 CYTOGENETICS (3 CREDITS)

Concerned with those aspects of genetics which can be studied by microscopy including chromosome structure, mitosis, meiosis, chromosome number, sex determination, and speciation. Aspects of human cytogenetics

including abnormalities in chromosome number and structure is considered. Molecular biology of chromosome structure and function is emphasized. Prerequisite: 3 hours of genetics.

BIO514 AQUATIC ENTOMOLOGY
(3 CREDITS)

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: Entomology, graduate status, or permission of the instructor.

BIO515 HOW TO RESEARCH, WRITE, AND PUBLISH A SCIENTIFIC PAPER (1 CREDIT)

Designed to introduce 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.

BIO516-519 GRADUATE SEMINAR (1 CREDIT)

Designed to provide biology graduate students with an in-depth survey of current research in one of four core areas in the graduate curriculum: ecology, physiology, genetics/cell biology, and structure/morphology/taxonomy. Emphasis is on student-led discussions of papers assigned and read. Biology graduate students must take two seminars in two different core areas or one core area plus *BIO515*.

BIO520 PLANT ECOLOGY (3 CREDITS)

Explores structure and function of natural plant communities and exposes students to methods of field sampling and data analysis in community ecology. Will include field labs to local forest and wetland plant communities. Prerequisite: Ecology.

BIO535 PROBLEMS IN PLANT PHYSIOLOGY
(3 CREDITS)

Laboratory experience in selected topics of plant physiology such as photosynthesis, translocation of the photosynthate, metabolic conversions, respiration, nitrogen metabolism, mineral nutrition and water relations. Prerequisite: 8 hours of chemistry or permission of the instructor.

BIO540 BIOGEOGRAPHY (3 CREDITS)

Examines factors influencing the distribution of animals and plants in the biosphere through lecture and discussion. Prerequisite: Graduate status.

BIO541 ECOSYSTEMS (3 CREDITS)

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: Ecology.

BIO547 WETLAND ECOLOGY (3 CREDITS)

Wetlands and the resident wildlife are studied as a unit to better understand the fragility of this invaluable habitat. Classification, delineations, wetlands protection techniques, current status of wetlands, specifically coastal wetlands will be the focus of this course.

BIO555 COMPARATIVE ENVIRONMENTAL PHYSIOLOGY (3 CREDITS)

Considers the comparative aspects of life functions in selected representatives of the animal kingdom with respect to their different environments. Prerequisite: Animal Physiology or Human Physiology or permission of the instructor.

BIO556 PHYSIOLOGICAL MECHANISMS OF ANIMAL BEHAVIOR (3 CREDITS)

Emphasizes neural and hormonal control of behavioral adaptations of a wide variety of organisms, both invertebrates and vertebrates. Beginning with basic neurophysiology and culminating in associative learning, the commonalities and varieties of behavioral adaptations are investigated. Prerequisite: 12 hours of either college biology or psychology.

BIO557 MICROBIAL PHYSIOLOGY
(3 CREDITS)

Examines the basic metabolism of bacteria, yeasts, and protozoans. Topics include metabolic pathways, regulations of metabolism, mechanisms of motility, and the role of oxygen in anaerobes, aerobes, and microaerophiles. Prerequisite: Microbiology.

BIO558 MICROBIAL ECOLOGY (3 CREDITS)

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: Microbiology.

BIO559 EVOLUTIONARY ECOLOGY
(3 CREDITS)

Lectures and discussion periods cover topics of physiological ecology, interspecific interactions, population ecology, community structure, the ecological niche, coevolution, and biogeography. Prerequisite: A previous college ecology course or permission of the instructor.

BIO575 MODERN GENETICS (3 CREDITS)
Examines recent developments in molecular aspects of gene structure, recombination and regulation of expression in both prokaryotes and eukaryotes. It also reviews classical and other aspects of genetics including mapping, sex determination and mutation.

BIO576 STRUCTURE OF VASCULAR PLANTS (3 CREDITS)

Investigates selected aspects of the anatomy and morphology of the vegetative and reproductive organs in lower vascular plants and seed plants. Comparative and developmental aspects of plant structure are emphasized, including an introduction to paleobotany, the study of plant fossils. Laboratories provide projects in botanical histochemistry and microtechnique. *Laboratory time in addition to the scheduled periods is required.* Prerequisite: Principles of Biology, Botany, or permission of the instructor.

BIO581 TOPICS IN MAMMALIAN BIOLOGY
(3 CREDITS)

Lectures and discussion examine topics of contemporary interest in mammalogy, including ecology, population dynamics, systematics, physiology, behavior, and zoogeography. Emphasis is placed on ecological studies of temperate forest small mammals. *May involve some field work.* Prerequisite: A course in mammalogy or graduate status.

BIO583 BIOLOGICAL TECHNIQUES
(3 CREDITS)

Laboratory and field-oriented course in which students become skilled in a variety of techniques, selecting with advisement those activities most related to their interests and goals.

BIO593 BIOMETRY (3 CREDITS)

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 CREDITS)

Opportunity for the department to offer courses in areas of departmental major interest which are not covered by the regular courses.

BIO599 INDEPENDENT STUDY (3 CREDITS)

Opportunity for students to pursue special studies in biology or biology education on topics not available in other courses.

BIO600 ELEMENTS OF RESEARCH
(3 CREDITS)

For Master of Education students and has two component parts: a general study of research methodology and a specific project which may be completed on the job. 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 study of a research problem or in the design or testing of curriculum materials. The project is related to life science in the secondary school and includes the preparation of a final report.

BIO605-608 GRADUATE RESEARCH
(3-12 CREDITS)

Opportunity for the graduate student to engage in research under the guidance of a member of the biology faculty.

BIO609 INTERNSHIP (3 CREDITS)

Opportunity for students to gain practical experience in their chosen career area.

BIO612 THESIS I (3 CREDITS)

BIO613 THESIS II (3 CREDITS)

Business Administration (MBA)

MBA554 INTERNATIONAL BUSINESS (3 CREDITS)

The course presents a broad view of issues facing professionals in the international business area. The topics are broad and include international trade, exchange rates, finance, organizational structure, and international legal dimensions. The student learns to weave the social, technical, cultural, risk and human relations factors into a global context.

MBA502 MANAGERIAL ACCOUNTING (3 CREDITS)

The primary purpose of this course is to develop an understanding of the quantitative use of accounting data for decision-making within the firm. The focus for most of the course is on developing an understanding of and appropriate use of cost in managerial decisionmaking. Although the appropriate use of cost in this course refers primarily to short-term decisions, the strategic implications of cost analysis are also addressed.

MBA556 ORGANIZATIONAL LEADERSHIP (3 CREDITS)

Examines the leadership and influence issues that managers face. Attention is given to leading up, down, and across the organization, recognizing that 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.

MBA529 GLOBAL MANAGERIAL FINANCE (3 CREDITS)

This course will explore basic financial theories, their application, and financial decision models necessary for handling complex corporate financial problems in the global environment. This course mainly emphasizes the important role of finance in the global business operations.

MBA 565 INFORMATION MANAGEMENT AND ANALYSIS FOR DECISION MAKING (3 CREDITS)

This course provides the 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 will be investigated. In addition, models based on quantitative and non-quantitative data will be studied.

MBA593 STRATEGIC MANAGEMENT (3 CREDITS)

Examines strategic analysis and decisionmaking 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.

MBA552 ENTREPRENEURSHIP (3 CREDITS)
Examines all aspects of starting a new business, with emphasis on the critical role of recognizing and assessing opportunities. Topics include tributes of entrepreneurs and entrepreneurial careers, creating and evaluating opportunities, writing business plans, and financing new ventures.

MBA577 SUPPLY CHAIN MANAGEMENT (3 CREDITS)

This course introduces students to 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. This course covers the issues facing managers of import-export firms, trading companies, international service companies, and multinational corporations.

Business Information Systems (BIS)

BIS420 TELECOMMUNICATIONS AND DISTRIBUTED PROCESSING (3 CREDITS)

Examines the technology, organization and operations of telecommunications and distributed data processing systems. Topics include hardware/software facilities, transmission systems, system design considerations and distributed system configurations. Business functions and case studies are used to illustrate the application of telecommunication and distributed processing technology. Prerequisite: *BIS355*.

BIS446 TOTAL INFORMATION SYSTEMS
(3 CREDITS)

In-depth seminar into the total information needs within a corporate structure. Cooperative project teams each develop a total information system design requirement for a corporation. Coverage includes: analysis of case studies of current business systems, organizations of project teams, formulation of the overall data base design within a corporate system, collection and structurization of information, documentation of information flow, flowcharts and decision tables preparation, establishment of practical controls and systems documentation requirements, and development and implementation of the systems test plan. Presentation of project progress and final team document is required. Prerequisites: *BIS344* and *BIS445* or permission of the instructor.

Chemistry (CHM)

CHM413 TOPICS IN POLYMER CHEMISTRY
(3-4 CREDITS)

Introduction to synthesis, characterization, and physical properties of macromolecules. Topics of discussion and experimentation include polymerization mechanisms, kinetics and techniques; structure-property relationships; molecular weight distribution and characterization; the glass transition temperature; rubber elasticity and viscoelasticity. (3 periods of lectures and 3 periods of lab/week.) Prerequisites or concurrents: *CHM222*, *CHM361* and *PHY206* or equivalents. Graduate students may register for the course without the laboratory for 3 semester hour credits.

CHM415 TOPICS IN MEDICINAL CHEMISTRY (3 CREDITS)

Study of basic principles of organic chemistry and pharmacology used in the design of chemical substances that interact with biological systems. Discussion centers on the 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 CREDITS)
Extension of *CHM301*. Develops to a greater depth the topics of bio-organic 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 CREDIT)

Introduces various laboratory techniques essential to the practice of modern biochemistry including separations, purification and analytical methods. Prerequisite: *CHM301*.

CHM450 STUDIES IN PHYSICAL CHEMISTRY (3 CREDITS)

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 the instructor.

CHM460 INSTRUMENTAL ANALYSIS
(3 CREDITS)

Laboratory course dealing with a 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. A short discussion period precedes each laboratory exercise. Prerequisite: *CHM362* or permission of the instructor.

CHM480 ORGANIC REACTIONS AND MECHANISMS (3 CREDITS)

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 the instructor.

CHM490 SELECTED TOPICS (1-3 CREDITS)

Communication (COM)

COM400 PUBLIC RELATIONS WRITING
(3 CREDITS)

Provides public relations majors with a variety of public relations writing experiences most likely to be encountered in business, government, education, journalism, and community organizations and offers practical exercises in progressive sequence. *Different evaluation criteria applied to graduate/undergraduate students.*

COM414 HISTORY AND PHILOSOPHY OF MASS COMMUNICATION (3 CREDITS)

Focuses upon the ideas, conditions, and trends that have interacted to create the media or mass communications in America. Introduces the student to intellectual, political, economic, cultural, and sociological histories. Also focuses on theoretical models and theory building.

Shippensburg University

COM450 RADIO AND TELEVISION NEWS (3 CREDITS)

Explores areas of reporting, writing, editing, and presenting news for radio and television. Prerequisite: Basic word processing skills or permission of the instructor.

COM451 ELECTRONIC NEWS GATHERING AND FIELD PRODUCTION (3 CREDITS)

Studies techniques for recording television news, documentary, and other programs outside the television studio using portable equipment. Reviews the use of taped and live remote transmission. Emphasizes planning and production using field cameras, portable lighting, and audio equipment.

COM460 CASE STUDIES IN PUBLIC RELATIONS (3 CREDITS)

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.

COM470 DIGITAL PHOTOGRAPHY (3 CREDITS)

Introduces the principles of digital photography and teaches students the basic competencies to apply standard photo concepts to the realm of digital imaging. Students study the history of digital photography, the techniques of composition, and the basic processes of producing digital photographs from electronic and traditional camera images. Emphasis is 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.

COM475 MAGAZINE AND BOOK PRODUCTION (3 CREDITS)

Principles and laboratory practice in magazine and/or book production and design include analysis of principles of layout; observing principles of typography; graphics; digital and traditional photography; headlines and titles; ethics of publishing; history and impact on society; editorial design, advertising and circulation challenges; freelance sources; dealing with editors; specialization; positioning and launching. *Visits to publishing houses.*

Graduate students participate directly in publishing projects in process including proofreading, copyediting, and preparation for submission to authors and publishers.

COM481 DESKTOP DESIGN FOR WRITERS (3 CREDITS)

Study in print communication with primary emphasis on desktop publishing (Macintosh) and the practical application of basic contemporary design to printed materials such as newsletters, booklets, pamphlets, and advertising messages, using PageMaker layout program. Prerequisite: Rudimentary experience with Macintosh computer or permission of the instructor.

COM490 SELECTED TOPICS (1-3 CREDITS)

COM500 COMMUNICATION THEORY (3 CREDITS)

Analyzes communication theory as it relates to media and audiences and studies the effects of communications on the attitudes and actions of society.

COM511 MODES OF FILM

COMMUNICATION (3 CREDITS)

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 CREDITS)

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.

COM526 EMERGING MASS MEDIA

TECHNOLOGIES (3 CREDITS)

Reviews and analyzes the role of developing and future telecommunications media technologies and their implication for today's media and society.

COM530 LAW AND THE MEDIA (3 CREDITS)

In-depth study of the law that affects media. The course 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 CREDITS)

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.

COM544 ADVANCED COMMUNICATION PROBLEMS (3 CREDITS)

Students identify a communication problem related to their professional project or to their thesis. Students then suggest possible solutions and produce or procure the materials needed to implement the solution chosen. Prerequisite: *COM500*.

COM561 PRESS AND PUBLIC AFFAIRS (3 CREDITS)

Investigates the relationship between print and electronic mass communication systems and local, state, and national governments, including regulatory agencies and barriers to the free flow of information. Considers the roles and functions of the press in reporting public affairs in the light of topical issues.

COM570 FUND RAISING AND ASSOCIATION PUBLIC RELATIONS (3 CREDITS)

Introduction to the fundamentals of raising funds for education, religious, health, and social welfare organizations. Study 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 CREDITS)

COM600 INTRODUCTION TO MASS COMMUNICATION RESEARCH (3 CREDITS)

Surveys major trends in mass communication research, including sociological and psychological perspectives, that have built our knowledge about how communication systems work. Through the examination of classic studies in the mass communication field, the student is introduced to a variety of research settings and techniques including readability, persuasion, content analysis, interviewing, questionnaire design and sampling. Prerequisite: *COM500*.

COM603 PROFESSIONAL PROJECT IN MASS COMMUNICATIONS (3 CREDITS)

Students design a project of professional and intellectual interest that contributes both to their knowledge and to the field of communications/journalism. Prerequisite: *COM500*, *544*, *561*, *600*. (*This is an individualized instruction course open only to students who are working with an adviser on the professional project option.*)

COM609 INTERNSHIP I (3 CREDITS)

COM610 INTERNSHIP II (3 CREDITS)

COM612 THESIS I (3 CREDITS)
Prerequisite: Prior approval of department chair.

COM613 THESIS II (3 CREDITS)

Prerequisite: Prior approval of department chair.

Computer Science (CPS)

CPS404 SOFTWARE ENGINEERING I (3 CREDITS)

Emphasizes the planning of a large software project. Topics covered include: requirements definition and specification, project management, feasibility studies, and software design. The goal is to design a project which will be implemented in *CPS406*. Prerequisite: *CPS245*.

CPS406 SOFTWARE ENGINEERING II (3 CREDITS)

Involves working in groups to implement the project designed in *CPS404*. Topics covered include: dependability, verification, validation, CASE, testing, and project evolution. Prerequisite: *CPS404*.

CPS411 MICROCOMPUTER INTERFACING (3 CREDITS)

Study of how microcomputers can be interfaced to the real world for purposes of data acquisition and process control. Topics covered include basic electrical theory, digital circuits, microprocessor interfaces, and real time programming. *Laboratory work will be included*. Prerequisite: *CPS447* or permission of the instructor.

CPS412 ARTIFICIAL INTELLIGENCE (3 CREDITS)

Introduction to the field of artificial intelligence. Knowledge representation and expert systems are topics of study. Some advanced LISP techniques and some introductory PROLOG concepts are presented. Students build expert systems of varying degrees of sophistication as projects. A particular inference engine is studied and enhanced as a student project. (This course will not count toward the M.S. in Computer Science.) Prerequisite: *CPS321*, or some knowledge of LISP, or permission of the instructor.

***CPS415* TECHNIQUES OF COMPUTER SIMULATION (3 CREDITS)**

Provides understanding of problems best approached through simulation. Topics include discrete vs. continuous simulation, queueing theory as it relates to simulation, evaluating a model, interpreting the results of a simulation. Experience and understanding are gained by building and evaluating models for widely diverse application areas. While the emphasis is on the problem-solving aspects of simulation using existing software packages, sufficient theoretical underpinnings will be included for thorough analysis of the models.

***CPS424* COMPILER DESIGN (3 CREDITS)**

Study of compilers for programming languages. General compiler design principles are discussed and illustrated by several case studies. Course includes a compiler implementation project completed by the students for a simple language. Prerequisite: *CPS257*.

***CPS433* WEB PROGRAMMING (3 CREDITS)**

An introduction to developing a complete web site. This includes designing web pages, using frames, programming in Java and Java applets for interaction, GUI development, and client-server programming. Various scripting languages will be used. Graduate students taking the course for graduate credit will research special topics related to the course and will share these reports with the class.

***CPS446* DATABASE MANAGEMENT SYSTEMS (3 CREDITS)**

Expands on the elementary database topics of the File and Database Processing course, and covers advanced topics in database management systems. Topics include data models, query languages, relational database theory and practice, database design, data independence, databases, object oriented databases. (This course will not count toward the M.S. in Computer Science.) Prerequisite: *CPS308*.

***CPS447* OPERATING SYSTEMS (3 CREDITS)**

Examines in detail process management, input/output, memory management, and file systems as the major components of operating systems, the most important and largest collection of system software. Students will implement alterations to existing operating system software, augment such software, and measure its performance. (This course will not count toward the M.S. in Computer Science.) Prerequisite: *CPS257*.

***CPS448* COMPUTER NETWORKS AND COMMUNICATIONS (3 CREDITS)**

Explores the fundamentals of computer communications. Provides hands-on experience with a state-of-the-art local area network and methods of internetworking LANs into larger networks. Examines the Internet and various standards such as the ISO layered model. Provides experience programming with at least one commonly used protocol suite. (This course will not count toward the M.S. in Computer Science.) Prerequisite: *CPS257*.

***CPS460* INTRODUCTION TO COMPUTER GRAPHICS (3 CREDITS)**

Covers graphics software packages and the principles on which such packages are based. Topics include raster graphics and frame buffers; clipping, windows, viewports, and coordinate systems; representation of points and lines; 2-D and 3-D transformations and transformation matrices; bezier and B-spline methods of curve-fitting; perspective; hidden line and surface algorithms; computer animation; common graphics I-O devices. (This course will not count toward the M.S. in Computer Science.) Prerequisite: *MAT225*.

***CPS490* SELECTED TOPICS IN COMPUTER SCIENCE (3 CREDITS)**

Presents topics which vary according to need.

***CPS512* DESIGN AND ANALYSIS OF ALGORITHMS (3 CREDITS)**

Analysis of run-time growth of algorithms including the growth classes O , W , Q , w , and α . 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.

***CPS532* PARALLEL ARCHITECTURES (3 CREDITS)**

Studies of various forms on parallelism. Analysis of pipelined processors and the effects of branching. Analysis of single and multi-stage interconnection networks including star, ring, hyper-cube, and Benes networks. Massively parallel computing with array machines, shared memory, and distributed memory multi-processor computers. Applications/algorithms

for parallel computers. Distributed shared memory systems including memory and cache coherence.

CPS533 OPERATING SYSTEMS (3 CREDITS)
Study of the functionality of an operating system and the design of efficient operating system components. Definition of a kernel and higher-level functions of operating systems. CPU scheduling algorithms. Interprocess communication including semaphores with busy-wait and idle-wait. Dead-lock, the dining philosophers problem and starvation. Resource allocation. The Bankers Algorithm. Virtual memory architectures. Introduction to distributed operating systems.

CPS546 ARTIFICIAL INTELLIGENCE (3 CREDITS)
Thorough background in the primary areas underlying AI: Search and Knowledge Representation (KR). A number of search techniques and KR paradigms (e.g., slot-and-filler schemes, semantic nets, rule-based systems, logic-based systems) will be presented, along with their use and applicability to real-world problems. Advanced topics may include: planning; computer learning; natural language processing; robotics; expert systems; computer vision. The roles played by search and KR in each of these areas is emphasized. Course involves an ongoing discussion of the social implications of AI. Projects will utilize Lisp and/or Prolog. Course provides a brief introduction to these languages, but is not intended as a tutorial for them.

CPS547 COMPUTER GRAPHICS (3 CREDITS)
Provides an understanding of the theoretical and conceptual components of computer graphics. Topics included are: 2D and 3D graphics concepts, modeling and transformations, visible surface detection, rendering and animation. *Programming projects use a high level programming language and a standard graphics programming package.*

CPS548 COMPUTER NETWORKS AND COMMUNICATIONS (3 CREDITS)
Provides an understanding of the theoretical and conceptual components of computer networks and communications. Topics include: network technology, protocols and routing algorithms, and network design issues. These topics are discussed vis-a-vis simple point-to-point networks, shared media networks like the Ethernet and the Token

Ring, and ATM and the Internet. In addition students learn how to write network applications using the client/server model. *These applications will be using a high level programming language on networked machines.*

CPS560 DATABASE MANAGEMENT SYSTEMS (3 CREDITS)
Detailed examination of the theory and practical issues underlying the design, development, and use of a DBMS. Topics include: characteristics of a well-designed database; high-level representation of an application using ER modeling; functional dependency theory, normalization, and their application toward a well-designed database; abstract query languages; query languages; concurrency; integrity; security. Advanced topics may be included; e.g., distributed databases; object-oriented databases. Students will apply theory to practice in a number of projects involving the design, creation, and use of a database.

CPS620 ADVANCED TOPICS IN COMPUTER SCIENCE (3 CREDITS)
Brings together faculty and advanced students with a common area of interest to explore state-of-the-art and future trends in an advanced topic of computer science. Topics vary from semester to semester. Prerequisite: permission of the instructor.

CPS630 RESEARCH, DESIGN, DEVELOPMENT PROJECT IN COMPUTER SCIENCE (3 CREDITS)
An individual effort of original work which results in a scholarly paper, a significant software package, a hardware module, or some combination of these in addressing and solving a problem in computer science. Effort is approved and monitored by a committee selected by the candidate. Results will be presented in an open forum.

Counseling (CNS)

CNS490 SELECTED TOPICS (1-3 CREDITS)

CNS502 THE ROLE OF THE ELEMENTARY COUNSELOR (3 CREDITS)

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 of program and *CNS585*.

CNS505 ORGANIZATION AND ADMINISTRATION OF SCHOOL COUNSELING SERVICES (3 CREDITS)

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 the roles of school personnel and community agencies in understanding and promoting the school-community guidance programs. Prerequisites: Completion of Phase I of program and *CNS585*.

CNS508 MARITAL, COUPLE AND FAMILY COUNSELING (3 CREDITS)

Designed to aid student in gaining experience and competency in the use of therapeutic interventions with married person, couple, and families. Emphasis is on the student's understanding of prominent theoretical modalities and applying the relevant techniques to classroom simulations. Students gain understanding and experience in dealing therapeutically with typical marital, couple, and family problematic concerns. Prerequisite: Completion of Phase I or permission of instructor.

CNS509 MULTICULTURAL COUNSELING (3 CREDITS)

Is designed to sensitize students and promote an understanding of their own self as a cultural being and to acquire expertise in the use of therapeutic interventions with diverse populations. Emphasis will be placed on the learning of approaches and the application of techniques that facilitate intra- and inter-group and multicultural experiences.

CNS510 DRUG AND ALCOHOL COUNSELING (3 CREDITS)

Designed to aid students in gaining understanding of 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 LEADERSHIP SKILLS (3 CREDITS)

Provides a didactic and experiential overview of a variety of group theories and group types. Particular attention given to the tools and techniques necessary to function effectively in the role of group leader. Emphasis will be placed on both the acquisition of knowledge and the skills of group leadership theories and techniques. Prerequisite: *CNS578* or concurrent registration with permission of instructor.

CNS515 CAREER DEVELOPMENT (3 CREDITS)

Stresses the development of counselor competencies in the areas of collecting, evaluating, classifying, filing, and using accurate occupational, educational and personal-social informational materials. Also considered are theories of vocational choice, the psychology and sociology of work, vocational interests and aptitudes, the relationship of school and college subjects to jobs and the use of information in helping students decide on matters of curricular choice. Counseling interviews are employed to give students practical experiences in the use of informational materials with counselees.

CNS522 ASSESSMENT TECHNIQUES IN COUNSELING AND STUDENT AFFAIRS (3 CREDITS)

Detailed study of collecting meaningful information about individuals and their environment through both testing and non-testing procedures. Emphasis is on understanding the information in order to help individuals cope with concerns and make decisions. Prerequisite: *CNS600*.

CNS524 CLASSIFICATION OF PSYCHOPATHOLOGY (3 CREDITS)

The classification system of psychopathology is studied. Special emphasis placed on building counseling models based on the integration of the classification and the client's individual situation.

Course Listings

CNS556 GUIDANCE AND COUNSELING CONFERENCE (1 CREDIT)

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 CREDITS)

Surveys a wide range of helping services and introduces the student to 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 CREDITS)

Surveys the 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 CREDITS)

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. Prerequisites: Completion of Phase I, *CNS560*, and *CNS565*.

CNS563 PROFESSIONAL ORIENTATION TO COMMUNITY COUNSELING (3 CREDITS)

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: psychoeducational and developmental counseling, health-promotive services, indirect counseling services, crisis counseling, and ethical and legal issues.

CNS564 GRIEF AND LOSS ISSUES IN COUNSELING (3 CREDITS)

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.

CNS565 THE COLLEGE STUDENT AND THE COLLEGE ENVIRONMENT (3 CREDITS)

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. Prerequisite: *CNS560*.

CNS567 COUNSELING CHILDREN (3 CREDITS)

Intense study of the 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 CREDITS)

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.

CNS573 THEORIES OF COUNSELING (3 CREDITS)

Intensive study of the 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* or concurrent registration with permission of instructor.

**CNS578 PRE-PRACTICUM IN COUNSELING
(3 CREDITS)**

Designed as an introduction to the practicum. The student's interview technique is developed through micro-counseling, both videotaped and directly observed. The interview situation includes other members of the class and volunteer undergraduate students. Recognition of the proper use of the various types of responses (content, feeling, etc.) is stressed. Prerequisite: CNS559 or concurrent registration.

**CNS580 CLINICAL FIELD EXPERIENCE I
(3 CREDITS)**

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 adviser. Course is offered on a pass/fail basis. Prerequisites: Completion of Phases I and II, adviser'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 CREDITS)**

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 adviser 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 CREDITS)**

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. Student must have a site approved by his/her adviser prior to course registration. Prerequisites: A grade of "B" or higher in CNS578, permission of adviser, attendance at orientation meeting the prior semester, and pre-registration form.

**CNS586 ADVANCED PRACTICUM IN
COUNSELING (3-6 CREDITS)**

Extension of CNS585 permits the student to gain greater specialized competencies in the same general setting. Prerequisite: CNS585, consent of adviser, attendance at orientation meeting the prior semester, and pre-registration form.

**CNS587 RESEARCH SEMINAR IN
COUNSELING (3 CREDITS)**

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 ADVANCED PSYCHOTHERAPEUTIC
SKILLS (3 CREDITS)**

Designed to aid student in gaining experience and competency in the use of therapeutic interventions from a variety of theoretical modalities. Emphasis will be placed on understanding, experiencing, and applying each technique; the appropriateness of its application, its effect and side effects, and the theoretical concepts underlying the change process facilitated by the intervention. Prerequisites: Completion of Phase I and CNS573.

**CNS589 CLINICAL FIELD EXPERIENCE II
(3 CREDITS)**

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 adviser. Course is offered on a pass/fail basis. Prerequisite: Completion of CNS580, approval of adviser, and pre-registration form.

CNS590 ADVANCED CLINICAL FIELD EXPERIENCES (3 CREDITS)

Continuation of the CNS580/589 field experience. Course is offered on a pass/fail basis. Prerequisites: Completion of CNS580/589, adviser's approval, and pre-registration form. Site selection must be approved by adviser.

CNS593 THEORIES OF PERSONALITY AND THEIR IMPLICATIONS FOR COUNSELING (3 CREDITS)

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 CREDITS)

CNS599 INDEPENDENT STUDY (3-6 CREDITS)

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 the adviser.

CNS600 RESEARCH AND STATISTICS (3 CREDITS)

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.

CNS609 INTERNSHIP (3 CREDITS)

CNS612 THESIS I (3 CREDITS)

CNS613 THESIS II (3 CREDITS)

Criminal Justice (CRJ)

CRJ501 FOUNDATIONS OF CRIMINAL JUSTICE (3 CREDITS)

Examines the nature, application, and impact of various theoretical approaches, practices and assumptions regarding the function and operation of the criminal justice system.

CRJ520 CRIMINAL JUSTICE ADMINISTRATION AND MANAGEMENT (3 CREDITS)

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 CREDITS)

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 CREDITS)

Examines the etiology of criminal behavior including the process of becoming a criminal, patterns of criminal behavior and the social and individual consequences of crime and delinquency.

CRJ570 LEGAL TRENDS AND ISSUES IN CRIMINAL JUSTICE (3 CREDITS)

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 CREDITS)

Examines the goals, organization, and operations of agencies and institutions that work with youthful offenders including current policies and proposals for their reform.

CRJ585 CORRECTIONS: OFFENDER TREATMENT AND REHABILITATION (3 CREDITS)

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.

Shippensburg University

CRJ590 CRIMINAL JUSTICE POLICY ANALYSIS (3 CREDITS)

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 IN CRIMINAL JUSTICE (3 CREDITS)

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 CREDITS)

Opportunity for the department to offer courses in areas of the departmental major interests not covered by regular course offerings.

CRJ595 PRACTICUM I (3 CREDITS)

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. Pass/Fail grading will be used.

CRJ597 PRACTICUM II (3 CREDITS)

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. Pass/Fail grading will be used.

CRJ600 RESEARCH METHODS IN CRIMINAL JUSTICE (3 CREDITS)

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 METHODS IN CRIMINAL JUSTICE (3 CREDITS)

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 CREDITS)

CRJ613 THESIS II (3 CREDITS)

CRJ617 INTERNSHIP I (3 CREDITS)

Provides students with 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. The 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.

CRJ INTERNSHIP II (3 CREDITS)

Provides students with 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. The 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.

CRJ631 DESIGNING AND EVALUATING CRIMINAL JUSTICE RESEARCH (3 CREDITS)

Examination and analysis of the linkages among the elements that constitute the design of a research paper including problem statement and purpose, conceptual framework, research methodology and discussion/implications, as well as the issues that need to be addressed in the critiquing of research. Prerequisite: *CRJ610*.

Decision Sciences (DSI)

DSI480 BUSINESS FORECASTING (3 CREDITS)

In-depth exploration of how to create and use business forecasting models for decision making and planning. Topical coverage includes regression-based models (the focus being on selecting the explanatory variables, validation, and applications), time series

approaches (including Box-Jenkins models), input-output analysis, the use of survey information, and new product forecasting. Students make forecasts based on simulated data and submit their results in the form of written reports. Prerequisite: *DSI340* or permission of the instructor.

Early Childhood Education (ECH)

***ECH460* FAMILY SCHOOL AND COMMUNITY PARTNERSHIPS (3 CREDITS)**

Surveys current and continuing issues in early childhood education. Includes a focus on child care, preprimary 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.

***ECH461* ASSESSMENT IN EARLY CHILDHOOD (3 CREDITS)**

Acquaints students with guidelines and techniques for providing for children's individual needs through implementing and interpreting developmentally appropriate evaluation measures; and through designing and monitoring individualized learning programs. Focuses on application of these techniques during accompanying practicum experiences with developmentally typical and atypical children in early childhood programs. Prerequisite: A course in child development.

***ECH462* PRACTICUM IN EARLY CHILDHOOD (3 CREDITS)**

Supervised observation and participation in an early childhood (preprimary) setting for at least 150 clock hours. Experiences in planning, implementing, and assessing education for young children and families are required.

***ECH510* INCLUDING CHILDREN WITH SPECIAL NEEDS IN EARLY CHILDHOOD EDUCATION (3 CREDITS)**

Presents current research about early childhood inclusion models and information about developing classroom-based services for young children with disabilities. Attention is 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 CREDITS)**

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 are required.

***ECH530* COGNITIVE AND LANGUAGE DEVELOPMENT IN EARLY CHILDHOOD EDUCATION (3 CREDITS)**

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 are required.

***ECH540* FAMILIES AND EARLY CHILDHOOD EDUCATION (3 CREDITS)**

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 are required.

***ECH563* THE ADMINISTRATION AND SUPERVISION OF EARLY CHILDHOOD PROGRAM (3 CREDITS)**

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 the instructor.

***ECH577* CURRICULUM IN EARLY CHILDHOOD EDUCATION (3 CREDITS)**

Investigates contemporary curricular issues and model programs. Curriculum, teaching strategies, and program organization decisions are analyzed from the viewpoints of current theory and research. Application of course content to individual situations is stressed.

Earth Science (ESS)

ESS404 APPLIED METEOROLOGY AND CLIMATOLOGY (3 CREDITS)

Intensive study of the 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, agricultural, human, architectural, and commercial aspects of society. Computer simulations and mapping are utilized to enhance understanding, and each student carries out a field study on a particular problem of atmospheric interest. Prerequisite: *ESS111 or ESS 355*

ESS413 MINERAL AND ROCK RESOURCES (3 CREDITS)

Deals with metallic ore deposits such as iron, ferroalloys and nonferrous metals, mineral fuels, and other selected minerals of economic significance. Emphasis is on geologic occurrence and mode of origin, geographical distribution, and importance to humans.

ESS442 ENVIRONMENTAL GEOLOGY (3 CREDITS)

Deals with relationships between man and the geological habitat; it is 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 is 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 CREDITS)

ESS594 SELECTED TOPICS (1-3 CREDITS)

ESS599 INDEPENDENT STUDY (3 CREDITS)

Economics (ECN)

ECN484 MATHEMATICAL ECONOMICS (3 CREDITS)

Covers the specification of economic models in mathematical terms. Applications of mathematical analysis to both macroeconomic and microeconomic concepts are presented. Prerequisites: *ECN101 and ECN102 or ECN501; and MAT181 or MAT211 or MGS530*.

ECN485 ECONOMETRICS (3 CREDITS)

Covers the 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: *ECN101 and ECN102 or ECN501; and MGS226 or MGS531*.

ECN490 SELECTED TOPICS (3 CREDITS)

Education (EDU)

EDU410 ENVIRONMENTAL EDUCATION PRACTICUM (3 CREDITS)

Affords students the opportunity to apply knowledge gained in previous courses and other experiences to a practical situation. It includes activities specifically designed to develop and evaluate skills students need to create a course of study for teaching environmental education in the elementary and secondary schools. An integral part of this course is working with both elementary and secondary students in the application of both skills and knowledge. Prerequisite: Approval of coordinator of environmental education.

EDU420 MICROCOMPUTERS IN THE CLASSROOM (3 CREDITS)

Provides basic knowledge of the 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.

EDU495 STUDENT TEACHING AND PROFESSIONAL PRACTICUM (3 CREDITS)

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 CREDITS)

Study of wide range of mathematics curricula, including those developed for the non-college intending as well as for the college intending. General curriculum problems and relevant research is 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 CREDITS)

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.

Educational Administration (EDA)

EDA490 SELECTED TOPICS (1-3 CREDITS)

EDA500 GENERAL SCHOOL

ADMINISTRATION (3 CREDITS)

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. The course is designed for teachers, school board members, and other interested lay citizens who wish to know more about educational administration.

EDA501 CURRICULUM FOR SCHOOL LEADERS (K-12) (3 CREDITS)

Addresses the changing curriculum in the American public schools (grades K-12). Topics include the history and status of recent curriculum projects with the controversy, problems and issues involved. Designed for specialists and generalists in education, particularly principals, counseling personnel, and subject area specialists. These individuals must be knowledgeable about curricular goals and activities in order to perceive interrelationships among various disciplines, evaluate the effectiveness of the curriculum, and to direct meaningful programs of curricular improvement. Through course experiences, graduate students will be knowledgeable about innova-

tions, strategic planning, issues, trends, federal and state regulations in order to exert leadership in articulating curricular reform to school boards, parents, and professional staff members. Prerequisite: Teaching and/or counseling experience, or permission of student's adviser.

EDA502 SCHOOL LAW FOR TEACHERS (3 CREDITS)

Enables classroom teachers to develop an understanding of the areas of school law related to their responsibilities, duties, and rights within the school setting. Constitutional law, federal and state statutes, federal and state judicial decisions, state board policies, and union contracts form the basis for investigation and study. The course is organized to reflect the variety of legal problems that educators actually face in the school setting. Prerequisite: A teaching certificate.

EDA503 EDUCATIONAL FOUNDATIONS: CONTEMPORARY ISSUES (3 CREDITS)

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. In addition, 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 twenty-first century.

EDA505 COMPUTERS AND THE SCHOOL ADMINISTRATOR (3 CREDITS)

Provides a review of different levels of computer literacy, the administrator's role in development of staff literacy and making knowledgeable decisions about board policies regarding acquisition and utilization of computers. Activities require students to implement, via commercial application programs, computerization of various administrative responsibilities such as scheduling, budgeting, record reporting, files, attendance, etc. Hands-on experiences with these packages provided.

EDA506-507 INSTRUCTIONAL SUPERVISION: A SCHOOL-UNIVERSITY PARTNERSHIP (2 CREDITS 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.

EDA508 GRADUATE SEMINAR IN INSTRUCTIONAL STRATEGIES (3 CREDITS)

Comprehensive study and systematic examination of classroom instructional strategies. It is 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.

EDA511 PHILOSOPHICAL FOUNDATIONS OF EDUCATION (3 CREDITS)

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.

EDA512 THE CURRICULUM IN THE MODERN SECONDARY SCHOOL (3 CREDITS)

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.

EDA513 SOCIOLOGICAL FOUNDATIONS OF EDUCATION (3 CREDITS)

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.

EDA530 THE INSTRUCTIONAL LEADER IN THE MIDDLE SCHOOL (3 CREDITS)

Comprehensive study and systematic examination of educational programs designed to provide a transition between elementary school and secondary education. Places special emphasis on the role of the middle school instructional leader in the following areas: (1) specific competencies in the unique physiological, psychological, sociological, 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.

EDA545 THE PRINCIPALSHIP (3 CREDITS)

Designed to introduce the future administrator to the principles and practices of administration as these relate to individual school units and the principal's function as an educator, professional leader, supervisor, master planner, business executive, community relations agent, and educational diagnostician. Focuses on experiences which relate the theory presented in class to simulated situations a principal may (and likely) will encounter. Prerequisite: master's degree in educational administration or permission of the student's adviser and the student's instructor.

EDA569 SEMINAR: DIVERSITY IN EDUCATION (3 CREDITS)

Designed to increase 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.

EDA574 FINANCE AND THE SCHOOL PRINCIPAL (3 CREDITS)

Designed to provide future and practicing elementary and secondary level building administrators with the knowledge necessary to understand and manage the fiscal responsibilities of an administrator working at the building level. As site-based management becomes a reality in schools, building level administrators face greater responsibility and accountability in this area. Cover the practical aspects of budget development, accounting procedures, building

level fiscal policies, activities fund and athletics fund management, purchasing procedures, computer techniques to manage fiscal affairs, and management approaches such as site-based management and total quality management as it applies to building level fiscal administration. Field-based experiences involving interaction with practicing administrators will be an integral part of the course. Prerequisites: *EDA500* and *EDA505*.

EDA580 STATISTICAL METHODS IN EDUCATION (3 CREDITS)

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.

EDA591 SCHOOL LAW (3 CREDITS)

Studies the major areas of school law with particular emphasis on the school code of Pennsylvania. Deals with such topics as: tort liability of school officials and teachers, the legal structure of public education, control of pupil conduct, desegregation, church-state relations and education, teachers' rights and responsibilities, pupils' rights, professional negotiations, the courts and the curriculum and the uses of school property and money. Prerequisites: *EDA500* and *EDA592*.

EDA592 GENERAL SCHOOL SUPERVISION (3 CREDITS)

Designed for principals, supervisors, department chairs and/or future cooperating teachers. The main thrust is to develop those supervisory concepts and skills necessary to evaluate the instructional act and to implement remedial activities. Majority of class meetings are work sessions where future supervisors view video tapes of the instructional act which serve as a point of reference for writing critiques, group discussions, and simulated supervisor-teacher conferences.

EDA594 SELECTED TOPICS (1-3 CREDITS)

EDA597 PRACTICUM IN EDUCATIONAL ADMINISTRATION (3 CREDITS)

Provides experiences designed to develop and enhance the overall effectiveness of the would-be administrators' competencies. Practicum is an individually prescribed program based upon the stated competencies of the program and the past experiences of the student. It consists of planned experiences and emphasizes direct involvement in school administration at sites

mutually acceptable to the student and the adviser of the practicum experience. The practicum experience provides the student with opportunities to bridge the gap between theory and practice and to realize first-hand involvement in the administration of schools.

Prerequisites: *EDA500*, *EDA592*, *EDA501*, and *EDA545*.

EDA598 ADVANCED PRACTICUM IN EDUCATIONAL ADMINISTRATION (3 CREDITS)

Extends the planned administrative experiences in a school setting. Student is required to serve a portion of the practicum in more than one district in order to assure a wide range of practicum experiences. Prerequisites: *EDA597*, *EDA591*, and *EDA545*.

EDA600 RESEARCH FOR SCHOOL ADMINISTRATORS (3 CREDITS)

Stresses research designs and methods, the terminology of research, the use of centers for research collection and dissemination for school administrators and emphasizes skills in designing and evaluating research studies. Prerequisite: *EDA580*.

EDA601-604 PRACTICUM IN CENTRAL OFFICE ADMINISTRATION (3-6 CREDITS)

Designed to bridge the gap from theory to practice. Student becomes directly involved in the operation of the central office and will perform the functions and duties of central office personnel completing several projects throughout the field experience. A synopsis of experiences is shared in a seminar approach with the university adviser and other practicum students. The college adviser performs periodic on-site visits to assess the growth and development of the intern. Prerequisites: *EDA612* and *EDA614*.

EDA611 THE LEGAL ASPECTS OF PUBLIC SCHOOL ADMINISTRATION (3 CREDITS)

Will identify, assess, and appraise the nature and function of the law and legal process as it impacts and applies to the administration of school districts and schools. Topics provide an in-depth examination of legal issues associated with the central administrative office and specifically with the position of superintendent of schools. Emphasis on a pragmatic approach of administrative survival in an increasingly litigious society. Prerequisite: *EDA591* or approval of department chair.

EDA612 ORGANIZATIONAL AND MANAGEMENT THEORY FOR THE SCHOOL ADMINISTRATOR (3 CREDITS)

Examines management and organization theories and their application to administrative practices. Systems models perused to gain insight into administrative processes such as decisionmaking, group motivation, communication, goal-setting, delegating, conflict resolutions, and the management team concept. Extensive research of current practices required. Prerequisite: *EDA545*.

EDA613 EDUCATIONAL FACILITIES AND PLANT MANAGEMENT (3 CREDITS)

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. Relates 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. Prerequisites: Admission to the Superintendent's Letter of Eligibility program or *EDA500*, *EDA501*, *EDA545*, and *EDA591*.

EDA614 BUSINESS AND FINANCE IN PUBLIC EDUCATION (3 CREDITS)

Identify and assess methods of financing public education. Addresses the complex business processes of educational planning and financing for staff, instructional process, and physical plant. Included for examination are: a historical review of school finance; public education's funding sources, including a study of federal and state financing; the nature of taxing authorities; the subsidy system; grants and entitlements to public education; and future trends and options in creative financial planning. The business operation of the public school is examined. An in-depth investigation of budget preparation, long and short term investing, bonding and under-writing, tax-collecting, and construction planning will be addressed. Prerequisite: *EDA500*.

EDA615 SCHOOL AND COMMUNITY RELATIONS (3 CREDITS)

Viewing the school as a dynamic cultural entity interacting with external supra-systems, the graduate student assesses the school's interdependency on the community and its many publics. Importance of a sound public relations program for the school, and the need to communicate and understand the community is stressed. The graduate student designs a program to enhance effective lines of communication between the school and its publics.

EDA616 NEGOTIATIONS AND PERSONNEL MANAGEMENT IN PUBLIC EDUCATION (3 CREDITS)

Designed to provide a comprehensive overview of personnel theory and function from the perspective of central office administration. Topics and issues explored include an in-depth treatment of contract negotiations, grievance procedures, mediation and arbitration for both classified and professional employees. Theories and practices in staff recruitment, selection, assignment, orientation, evaluation, educational development, and retrenchment are examined. Personnel management theory is viewed from a holistic approach. Prerequisites: *EDA500* and *EDA545*.

EDA617 POLICY, ADMINISTRATION, AND GOVERNANCE ISSUES IN SCHOOL ADMINISTRATION (3 CREDITS)

Designed to target current issues and problematic situations facing the central office administrator in today's dynamic system of public education. Examines and identifies the critical components of contemporary administrative leadership behavior necessary to facilitate changes toward more effective schools. Policy formulation to deal with current issues is stressed. Prerequisites: *EDA500* and *EDA545*.

EDA618 CURRICULUM THEORY AND DEVELOPMENT (3 CREDITS)

Designed for administrators who are/will be leaders in the curriculum area, and viewed from the macrocurriculum perspective instead of the microcurriculum 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. The roles of supervisors,

Shippensburg University

principals, and central office personnel examined as they relate to curriculum management, development, and evaluation.

EDA620 THESIS (3 CREDITS)

Elective course offered within the master's program in elementary/middle or middle/secondary administration. Students enrolled in *EDA600* Research for School Administrators select a committee, a chair, and complete the proposal (the first three chapters of the thesis), including human subjects review. During *EDA620* Thesis, student defends the proposal begun in *EDA600*, 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.

English (ENG)

ENG426 ADOLESCENT LITERATURE (3 CREDITS)

Designed to acquaint secondary English pre-service teachers with award-winning literature and teaching resources to use with adolescents in grades 7-12. Topics include examination of the psychological and developmental needs of the adolescent; how to accommodate the 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.

ENG467 SEMINAR IN DRAMA (3 CREDITS)

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 nonchronological cluster of significant dramatists, e.g., Marlowe, Ibsen, O'Neill, which may vary from instructor to instructor. Enables students to understand in-depth 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.

ENG468 SEMINAR IN FICTION (3 CREDITS)

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 from instructor to instructor. Enables students to understand 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.

ENG469 SEMINAR IN POETRY (3 CREDITS)

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 from instructor to instructor. Enables students to understand 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.

ENG471 CONTEMPORARY AMERICAN AND BRITISH LITERATURE (3 CREDITS)

Covers American and British works of drama, fiction, and poetry published from 1945 to the present. Works published in recent years may receive somewhat greater emphasis. All works studied are outstanding examples of each genre in this period. Representative writers are Barth, Shepard, Levertov, Pinter, Lessing and Heaney. Expect to write at least one analytic paper for the course.

ENG472 CONTEMPORARY WORLD LITERATURE (3 CREDITS)

Covers drama, fiction, and poetry published from 1945 to the present. Works published in recent years may receive somewhat greater emphasis. All works studied are outstanding examples of each genre in this period. Representative writers are Brecht, Ionesco, Garcia Marquez, V.S. Naipaul, Akhmatova, and Walcott. Expect to write at least one analytic paper for the course.

ENG490 SELECTED TOPICS IN ENGLISH (1-3 CREDITS)

Course Listings

ENG505 SEMINAR IN POETRY (3 CREDITS)

Provides in-service teachers and certification students with advanced study of poetry and poetics. The 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 CREDITS)

Provides in-service teachers and certification students with advanced study of fiction. This 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 CREDITS)

Provides in-service teachers and certification students with advanced study of drama and/or film. The 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 CREDITS)

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 anti-communist 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 the study of literary texts. One or more critical papers required. Specific content varies according to instructor. Prerequisite: *ENG500*.

ENG512 SEMINAR IN COMPOSITION AND RHETORIC (3 CREDITS)

Introduces graduate students to 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, the 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. Prerequisite: *ENG500*.

ENG515 SEMINAR IN AMERICAN LITERATURE (3 CREDITS)

Provides in-service teachers and certification students with advanced study of American literature. This 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 CREDITS)

Provides in-service teachers and certification students with advanced study of British literature. This 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 CREDITS)

Provides in-service teachers and certification students with advanced study of literature in a global context. This course may focus on a 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 CREDITS)

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. The 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 CREDITS)

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 CREDITS)

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.

ENG600 ELEMENTS OF RESEARCH (3 CREDITS)

Seminar in current theories and research methods in English, analysis of source materials, and preparation of papers. Students are expected to master library bibliographic techniques, develop a research agenda, and present a model seminar paper. Students should schedule this course as early in their program as possible.

Finance (FIN)

FIN405 REAL ESTATE APPRAISAL AND INVESTMENT ANALYSIS (3 CREDITS)

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 the course. Prerequisite: *FIN340* or permission of the instructor.

FIN414 BANK MANAGEMENT (3 CREDITS)

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*.

FIN425 GLOBAL FINANCIAL MANAGEMENT (3 CREDITS)

Studies on the international environment, the foreign exchange risk management, the investment decision, the financing decision, and management of ongoing business operations in the global settings. Emphasis placed on the analysis and evaluation of the investment decision, financial decision, and operational and financial risk in foreign countries. Prerequisite: *FIN306* or permission of department chair.

FIN442 DERIVATIVES MARKETS (3 CREDITS)

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.

French (FRN)

FRN400 SEMINAR: ADVANCED STUDIES IN FRENCH LANGUAGE AND LITERATURE (3 CREDITS)

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.

FRN490 SELECTED TOPICS (3 CREDITS)

Geography (GEO)

GEO401 GEOGRAPHY OF TOURISM (3 CREDITS)

Study of the spatial aspects of the rapidly expanding tourist industry. Global and national patterns of tourism analyzed in view of their environmental, political, economic, and social significance.

GEO402 ENVIRONMENTAL HEALTH (3 CREDITS)

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.

GEO403 NATURAL HAZARDS AND HOSTILE ENVIRONMENTS (3 CREDITS)

Concerned with: (1) the scientific causes, classifications and effects of geologic, climatic and hydrologic hazards; (2) the cultural impact and socio-economic adjustments relating to these natural hazards and, (3) application and utilization of scientific and technological strategies for assessing, controlling, and preventing natural disasters. Prerequisite: 12 hours of geography/earth science courses.

GEO420 GEOGRAPHIC INFORMATION SYSTEMS (3 CREDITS)

Lecture and computer-assisted laboratory study of techniques and applications of geographically registered data. Objective is to familiarize students with fundamentals of spatial database development, data management and manipula-

tion, analysis, and display of computer maps. Students introduced to both vector and raster type GIS software in weekly laboratory exercises. *Two hours lecture and two hours computer laboratory per week.*

GEO440 FIELD TECHNIQUES (3 CREDITS)

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 are used to aid in the research, analysis, and evaluation of the field problem.

GEO441 QUANTITATIVE METHODS (3 CREDITS)

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 CREDITS)

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 the local region are utilized.

GEO445 REMOTE SENSING (3 CREDITS)

Emphasis on the understanding and application of remotely sensed data. Basic understanding of electro-magnetic radiation provided. Environmental applications utilizing low altitude aerial photos, high altitude color photos and satellite sensings within various environmental contexts are provided. Individual remote sensing projects are developed in the area of geology, forestry, land-use planning and industrial analyses.

GEO446 WATER RESOURCES MANAGEMENT (3 CREDITS)

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

Shippensburg University

studies used to illustrate multiple use issues, including aquatic ecology, wetlands, floodplain management, recreation, water supply, hydro-power, industry, and commercial shipping.

GEO450 GEOGRAPHY-GEOLOGY FIELD STUDIES (1 CREDIT)

One week to 10-day regional field study observing and analyzing the physical and cultural landscape. Emphasis is placed upon the physical and historical geology and geography of a prescribed route including several states. Prerequisites: *ESS212*, *ESS311*, *GEO103* or permission of the instructor.

GEO490 SELECTED TOPICS (1-3 CREDITS)

GEO500 ENVIRONMENTS OF THE NATIONAL PARKS (3 CREDITS)

Interdisciplinary study of the natural environments of the national parks, monuments, seashores, etc., and the impact of human activity. Topics for class discussion and activity include geology, landscapes, wildlife, vegetation and human impact, and interaction with the natural setting. Sharing results of intensive study into specific topics by individual students comprises a significant portion of the course.

GEO514 URBAN ENVIRONMENT (3 CREDITS)

Examines the impact of IT (Information Technologies) 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. Use of new opportunities in information availability and information sharing should assist anyone concerned with a vast range of human problems with their potential solutions. 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.

GEO517 APPLIED GEOGRAPHIC INFORMATION SYSTEMS (GIS) (3 CREDITS)

This course 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 is used to show applications of geographic information technology for geoenvironmental and natural resource management projects.

GEO520 SETTLEMENT GEOGRAPHY (3 CREDITS)

Concerned with analysis and research regarding the character, distribution patterns, and principal functions of rural settlements, towns, small cities and their environs. Representative communities are employed as laboratory areas for field problems and reports.

GEO522 GEOENVIRONMENTAL HYDROLOGY (3 CREDITS)

Focuses upon the continental or land phase of the hydrologic cycle and includes the study of supply and the geographical distribution of water in lakes, rivers, streams, embayments, and underground water supplies and the use and/or misuse of these water resources for urban, suburban, and rural living. Consideration given to recent day knowledge, attitudes and technology concerning these water resources. Local water resources and drainage basins are used as laboratory areas for field problems and reports.

GEO524 THE GEOLOGIC ENVIRONMENT (3 CREDITS)

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.

GEO526 THE ATMOSPHERIC ENVIRONMENT (3 CREDITS)

Focuses on water budget climatology and its application to geoenvironmental analysis. The Thornthwaite Water Budget technique is taught and used in application to hydrology, drought, ecological relationships, crop production, and environmental change. Special attention given to climatic change, especially paleoclimatic analysis and predicted effects on the environment resulting from global warming or other future climatic changes. Extensive section on climatic classification. Demonstrates to the student the significance of energy/moisture factors as measured by evapotranspiration at the earth's surface and allows student

to utilize these factors for the analysis of stream flow, crop production, distribution of ecosystems, and other environmental elements.

GEO528 GEOGRAPHY OF ECONOMIC AND ENVIRONMENTAL SYSTEMS (3 CREDITS)

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.

GEO530 MAPPING SCIENCES (3 CREDITS)

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.*

GEO532 GEOGRAPHY OF ENVIRONMENTAL HEALTH (3 CREDITS)

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.

GEO536 PROBLEMS OF THE ATMOSPHERIC ENVIRONMENT (3 CREDITS)

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. The interrelationships among the various atmospheric problems is emphasized.

GEO542 LAND-USE REGULATIONS (3 CREDITS)

Provides student with 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.

GEO545 IMAGE PROCESSING OF REMOTELY SENSED DATA (3 CREDITS)

Microcomputer processing of remotely sensed data in digital format forms the primary focus. Each student has numerous hands-on computer experiences in extraction and selection of multiband pixel data from satellite platforms. Image processing and enhancement techniques emphasized. Supervised and unsupervised classification strategies performed on numerous data sets extracted from selected regions of the world. Students utilize the broad based data sets for more specific applications research.

GEO546 GEOENVIRONMENTAL RESEARCH I (3 CREDITS)

Research course to be worked out with member of the geography-earth science department.

GEO548 GEOENVIRONMENTAL RESEARCH II (3 CREDITS)

Research course to be worked out with member of the geography-earth science department.

GEO560 GEOENVIRONMENTAL CONFERENCE (1-3 CREDITS)

Concentrated one- to three-week sequence designed for graduate students with professional or personal interest in current and timely geoenvironmental problems. Purpose is to help the student develop concepts and factual data on physical environments and on cultural and economic environments of selected areas. Special attention given to natural landscapes and to human use of air, land, and water resources for settlement, transportation, agriculture, recreation, industry and commerce. Recognized authorities in these aspects of the geoenvironment participate as lecturers and discussion leaders. Field trips and open classroom activities are an integral part of the conference. In addition to participating in all aspects of the conference, students enrolled for credit attend special class sessions and complete an individual project related to conference theme.

GEO594 SELECTED TOPICS (1-3 CREDITS)

GEO599 INDEPENDENT STUDY (3 CREDITS)

GEO609 INTERNSHIP I (3 CREDITS)

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.

GEO610 INTERNSHIP II (3 CREDITS)

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.

GEO612 THESIS I (3 CREDITS)

GEO613 THESIS II (3 CREDITS)

Gerontology (GRN)

GRN480 VALUING DIVERSITY IN LATER LIFE (3 CREDITS)

Course 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 CREDITS)

Students explore 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 CREDITS)

Course 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 CREDITS)

Course provides students with the skills necessary to apply, understand, and critically evaluate the unique outcomes of research designs involving older adults.

GRN484 EVALUATING GERONTOLOGY PROGRAMS, SERVICES, AND PRODUCTS (3 CREDITS)

Course 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.

GRN510 FOUNDATIONS OF APPLIED GERONTOLOGY I: THE SOCIAL CONTEXT OF AGING (3 CREDITS)

This foundation course in social gerontology 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, & WELLNESS (3 CREDITS)

Course 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, & WELLNESS (3 CREDITS)

During this course, students will examine 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 CREDITS)

Course provides students with the skills necessary to understand and critically evaluate aging research, with an emphasis on applying results to real world issues.

GRN610 ADVANCING SOCIAL AND PUBLIC POLICY IN GERONTOLOGY (3 CREDITS)

Course examines the impact of aging and healthcare 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 CREDITS)

Students will examine model theories, programs and services for seniors, with an emphasis on revision and adaptation for career-specific use.

GRN640 ATTRACTING AND KEEPING OLDER CLIENTELE (3 CREDITS)

Course 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 CREDITS)

Course focuses on issues and skills important to the effective management of an aging workforce including hiring, performance evaluation, training, retraining, and leadership.

Shippensburg University

GRN650 APPLIED PROJECTS AND RESEARCH IN AGING (3 CREDITS)

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 CREDITS)

This 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 CREDITS)

Students will have the 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 CREDITS)

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 CREDITS)

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 the class 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 CREDITS)

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. Course includes: (1) pre-Islamic Arabia, (2) the rise of Islam, (3) Arab expansion and adaptation, (4) nomadic-urban encounters, (5) development of socio-political institutions, religious sects, and cultural-scientific achievements.

HIS418 INTRODUCTION TO APPLIED HISTORY (3 CREDITS)

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 is placed on the financial, legal, ethical, political, and interpretive issues faces by historians presenting the past to diverse audiences.

HIS419 ADVANCED TOPICS IN PUBLIC HISTORY (3 CREDITS)

Provides an 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.

HIS421 STUDIES IN 19TH-CENTURY EUROPEAN HISTORY (3 CREDITS)

Undertakes an evaluation of major themes or topics of the period 1815-1914 with emphasis both on those major developments which are unique to the period and those which lay the groundwork for more recent happenings. Prerequisite: *HIS106* or permission of the instructor.

Course Listings

HIS423 ISSUES IN 20TH-CENTURY EUROPE (3 CREDITS)

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 CREDITS)

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 is placed upon the differing interpretations of the Progressive Movement which have been developed by various historians.

HIS454 CHINA AND THE OUTSIDE WORLD (3 CREDITS)

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 SELECTED TOPICS (1-3 CREDITS)

HIS494 INTRODUCTION TO ARCHIVES (3 CREDITS)

Introduces the nature of archives and concepts of archival administration. Stresses the relationship of archives to other kinds of documentary materials, and surveys basic archival activity. Examines state, local, business, labor, university, and church archives and defines the problems of these specialized archives.

HIS499 HISTORIOGRAPHY (3 CREDITS)

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 the instructor.

HIS510 SEMINAR IN THE SOCIAL HISTORY OF EDUCATION (3 CREDITS)

A social history of the rise of literacy and schooling from the 16th through the 20th centuries. Examines the relationships between emergent national state systems and other agencies of modernization such as urbanization and industrialization, which brought modern educational systems, high levels of literacy, and national cultures into existence. Attention focuses on state action, educational system and their ideological content, and education's variable impact across social strata.

HIS512 SEMINAR IN COMPARATIVE LABOR HISTORY (3 CREDITS)

Compares history of the working classes and labor movements in various countries including those in the Americas, Europe, Africa, and Asia. Explores the ways workers as producers and citizens intervened to shape the course of the industrial world, and the evolving role of the state in the contested relationships of workers and employers, and cross-cultural patterns of protest and change. Emphasizes the role of gender and race in labor issues.

HIS513 SEMINAR IN U.S. WOMEN'S HISTORY (3 CREDITS)

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.

HIS514 POPULATION IN HISTORY (3 CREDITS)

History of Western (European and American) populations and family structures in relation to changing economic, social, and ecological factors during the era of modernization, i.e., the 17th through the 19th centuries. Also searches for principles applicable to contemporary Third World population problems. Prerequisite: *HIS106* or *HIS202* or permission of the instructor.

HIS515 SEMINAR IN 20TH CENTURY U.S. SOCIAL HISTORY (3 CREDITS)

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.

Shippensburg University

HIS516 SEMINAR IN AFRICAN AMERICAN HISTORY (3 CREDITS)

Deals with the experience of the black man 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 CREDITS)

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 CREDITS)

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 CREDITS)

Considers new and old interpretations regarding this political watershed's coming and consequences (roughly 1830 to 1880), emphasizing social, cultural, and political perspectives.

HIS534 SEMINAR IN MODERN GERMAN HISTORY (3 CREDITS)

Analysis of critical issues in German history since 1871, with emphasis on the period since 1919. Particular emphasis given to the collapse of the Weimer Republic and the Hitler dictatorship.

HIS535 SEMINAR IN MEDIEVAL STUDIES (3 CREDITS)

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. The selection of works affords a coverage of the economic, political, philosophical, religious and literary aspects of the period.

HIS540 COMPARATIVE LATIN AMERICAN HISTORY (3 CREDITS)

Comparative approach to examine various themes related to Latin America. Comparison and contrasts made between the varying experiences of two or more countries. Comparative themes include pre-Columbian developments, colonial experiences, independence movements, approaches to modernization, issues of class, gender, and ethnicity, political ideologies and systems, cultural and artistic developments, and relationships to the United States and the World.

HIS545 HISTORY, THEORY, AND PRE-INDUSTRIAL SOCIETIES (3 CREDITS)

Introduces current theories that enhance the historical understanding of preindustrial societies (foragers and small-scale food-producing societies as well as early and more complex chiefdoms, states, and empires). Students discuss historically-oriented social and cultural theory and its application to historical reconstruction. Also examine case studies from different times and places, with attention to regional contexts and development of cultural traditions. Topics may include structure and agency, cultural continuity and transformation, nature and culture, orality and literacy, the emergence of complexity, production and exchange, early states, patriarchy, religious and political ideology, material culture, and the interplay of documentary and other forms of evidence.

HIS550 SEMINAR IN SOUTH ASIAN HISTORY (3 CREDITS)

Study of the huge subcontinent of India and Pakistan. The approach is historical and includes an analysis of present social, economic, and political problems. The religious background, the culture, the economic and political systems are studied.

HIS555 SEMINAR IN RUSSIAN SOVIET AND POST-SOVIET HISTORY (3 CREDITS)

Stresses the idea of continuity as a dynamic force in Russian history, seeing in the domestic and foreign policies of Lenin and Stalin many significant intellectual, political and socio-economic similarities with the past, especially with Tsarist Russia. Consequently, the study concentrates, when appropriate, on Leninism as distinct from Marxism, the Bolshevik revolution and the period of War Communism, Stalin's program of industrialization, the purges of the thirties, and the Cold War. Other topics include Reformist continuities in Soviet history and Dissent as a continuing factor.

HIS558 SEMINAR IN EAST ASIA AND THE MODERN WORLD (3 CREDITS)

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.

HIS562 SEMINAR IN AFRICAN HISTORY (3 CREDITS)

Comprehensive survey of the culture and history of Africa with emphasis on the diversity which exists among the peoples of Africa. Includes a study of the physical aspects and peoples, the great kingdoms that existed before the coming of the Muslim and the European, slavery and slave trade, art, family life, land, labor, markets, policy, law, and religion. Special attention given to the colonial period and its legacies: nationalism, negritude and independence.

HIS594 SELECTED TOPICS (1-3 CREDITS)***HIS598 INDEPENDENT STUDY (3 CREDITS)******HIS599 READINGS IN HISTORY (3-6 CREDITS)***

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 CREDITS)

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. Students should schedule this course as early as possible in the program.

HIS601 RESEARCH IN LOCAL AND REGIONAL HISTORY (3 CREDITS)

Intensive study and hands-on research of micro-regions or localities defined by their natural geographic, economic, or cultural characteristics. Course 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 are required to complete a research paper demonstrating mastery of the techniques of local and regional historical research.

HIS609 INTERNSHIP I (3 CREDITS)***HIS610 INTERNSHIP II (3 CREDITS)******HIS612 THESIS I (3 CREDITS)******HIS613 THESIS II (3 CREDITS)*****Management (MGT)*****MGT432 ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT (3 CREDITS)***

Analysis of special problems facing manager-owner of start-up and existing small business enterprises. Case analysis, and analyses of actual small business operations used. Problem-solving approach employed throughout. Prerequisites: *MGT305*, *MKT305*, and *FIN305*.

MGT436 BUSINESS DECISION-MAKING LABORATORY (3 CREDITS)

Experimental approach to decision-making utilizing a sophisticated business simulation. Students grouped into a number of "firms," competing in a hypothetical market. Series of quantitative and behavioral exercises used to integrate previously studied concepts into a dynamic, competitive setting. Prerequisites: *FIN305*, *MGT305*, and *MKT305* or departmental permission.

MGT447 BUSINESS AND SOCIETY
(3 CREDITS)

Examines role of business in a social system including interrelationships with government, the community, employees, and other major publics. A major area of focus is the social responsibility of business. Consideration given to such areas as international business, business ethics, pollution, and impact of governmental regulations. Prerequisite: departmental permission.

MGT470 INTERNATIONAL MANAGEMENT
(3 CREDITS)

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 CREDITS)

MGT497 STRATEGY FORMULATION AND IMPLEMENTATION (3 CREDITS)

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 the influence of social, demographic, technological, political/legal, economic, and global environments, as well as the industry environment of competitors, buyers, suppliers, and substitutes. This is the cross-functional capstone course for all business majors. Prerequisites: *MKT305*, *FIN306*, *DSI330*, *MGT305*.

Management Information Systems (MIS)

MIS510 TECHNOLOGY INTEGRATION AND APPLICATIONS (3 CREDITS)

Course focuses on the technology trends causing change within business organizations and the impact of these upon the integration and management of their functional applications. Current literature used to view examples illustrating successful and unsuccessful adaptation. Students are organized into teams and research specific trends of interest. Also, each student is required to complete an analysis of their current employer's organization and will develop a plan for the integration of a new

technology or application detailing the impact and changes necessary from the organizational, management and technological perspectives.

MIS520 PROGRAMS, DATA, AND FILE STRUCTURES (3 CREDITS)

Advanced programming, data organization, and accessing design techniques.

MIS530 MODELING AND DECISION SYSTEMS (3 CREDITS)

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. The utilization of current computer technology is an integral part of the course.

MIS540 DATA COMMUNICATIONS, NETWORKS, AND DISTRIBUTED DATA PROCESSING (3 CREDITS)

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.

MIS550 DATABASE DESIGN (3 CREDITS)

The data environment, basic technical concepts and system resources for data, database concepts, use and management of databases.

MIS560 INTRODUCTION TO E-BUSINESS (3 CREDITS)

Course covers the Internet and electronic commerce concepts related business operations and management, technology utilization, and industry-specific applications. It is intended to introduce students to the current business, management, technology, and legal issues in e-business. Topics in the program span a wide range and include Web Strategies, E-Marketing, E-Human Resources, E-Finances, B-to-B Systems, E-Legal Issues, Web Site Design, Technology Needs, and Database-Driven Web Sites.

MIS570 INFORMATION ANALYSIS (3 CREDITS)

Course designed to provide the student with the necessary skills to accomplish the systems analysis and logical design of information systems. It will include the role of a modern systems analyst as a problem solver in the business organization. The 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 that are used to analyze and design and build systems will be introduced.

MIS580 WEB PROGRAMMING (3 CREDITS)

Course 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 this course will be to build a web site based upon an e-commerce business.

MIS590 INFORMATION SYSTEMS DEVELOPMENT I (3 CREDITS)

Course is 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. This course stresses team management, project planning, and risk assessment in addition to technical skills.

MIS600 INFORMATION SYSTEMS DEVELOPMENT II (3 CREDITS)

Course is the second in a two semester sequence where students apply the knowledge they have gained in MSIS program. The projects started in MIS 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.

Marketing (MKT)

MKT430 MARKETING RESEARCH (3 CREDITS)

In-depth study of the tools of marketing research, including the methodology and techniques used in measuring the characteristics of markets for products and services. Topics include the research process, data collection, sampling, data analysis, and presentation of results. Contains hands-on development of capabilities to study characteristics of the marketplace. Prerequisite: *MKT305*, *MKT306*, *DSI220*, or departmental permission.

MKT460 INTERNATIONAL MARKETING (3 CREDITS)

The socio-political-legal-economic environment of international marketing operations, which may include cross-cultural consumer behavior, international marketing research, forms of regional market agreements, international product, pricing, distribution and promotion policies, multinational corporations, and world trade patterns. Prerequisite: *MKT305* or departmental permission.

MKT470 SERVICES MARKETING AND NON-PROFIT MARKETING (3 CREDITS)

Analysis of service marketing and non-profit marketing. Similarities and differences to consumer marketing are analyzed. Methods to successfully market the service or organization discussed. Prerequisite: *MKT305* or departmental permission.

MKT490 SELECTED TOPICS (1-3 CREDITS)

Opportunity for the department to offer courses in areas of departmental major interest not covered by the regular courses.

MKT495 MARKETING ANALYSIS AND STRATEGY DEVELOPMENT (3 CREDITS)

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*, *MKT430*, or departmental permission.

Mathematics (MAT)

MAT400 SURVEY OF THE EVOLUTION AND DEVELOPMENT OF MATHEMATICS (3 CREDITS)

This course surveys the mathematical developments that led to the calculus and other contemporary branches of mathematics that are relevant to K-12 mathematics education. The course will include the study of original sources from a modern mathematical perspective. Prerequisite: *MAT320* or at least junior standing.

MAT410 NUMERICAL ANALYSIS I (3 CREDITS)

Primarily a course in methods of numerical approximation to the value of functions, polynomials, and systems of equations. Topics covered include accuracy of approximate calculations, interpolation and interpolating polynomials, solution of algebraic and transcendental equations. Numerical solution of simultaneous linear and non-linear equations, principle of least squares, difference equations and quadrature formulas are also studied. Prerequisites: *MAT441*, *CPS340*, or permission of the instructor.

MAT420 ABSTRACT ALGEBRA (3 CREDITS)
Detailed study of one or more of the algebraic structures groups, rings, fields. Emphasis is on structure theorems such as the fundamental theorem of group homomorphisms and uses the sophistication developed in the prerequisites. Prerequisites: *MAT320* and *MAT428*.

MAT428 LINEAR ALGEBRA (3 CREDITS)
Studies abstract vector spaces, linear transformations, bases, subbases, dimensions and Euclidean N -spaces. Other topics that may be included are projections rank, nullity, decomposition forms and normed vector spaces. Prerequisite: *MAT320*.

MAT429 APPLICATIONS OF LINEAR ALGEBRA (3 CREDITS)

Linear algebra is one of the most widely applicable branches of mathematics. This course will expand upon the students' background in linear algebra and study specific applications of the tools of linear algebra to areas such as economics, game theory, optimization, statistics, computer science, and physics. Prerequisite: *MAT428* or permission of the instructor.

MAT430 COMPLEX VARIABLES (3 CREDITS)
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. Prerequisite: *MAT441* or permission of the instructor.

MAT441 ADVANCED CALCULUS I (3 CREDITS)

Designed to give the student a fundamental understanding of the concepts used in elementary calculus. The methods of a logical proof are developed and used throughout. Topics covered include real numbers, sequences, limits, continuity, derivatives and the Riemann integral. Prerequisites: *MAT213* and *MAT320*.

MAT442 ADVANCED CALCULUS II (3 CREDITS)

Continuation of Advanced Calculus I. More attention given to concepts and also to improper Riemann integrals and to series. These concepts are then applied to more general spaces. Prerequisite: *MAT441*.

MAT444 MODERN GEOMETRY (3 CREDITS)
Covers a subset of the following topics: the finite Geometries of Desargues and Pappus; Transformations (geometric affine, projective); convexity; recent Euclidean, Ceva, Menelaus geometry; 9 point circle; constructions; projective geometry. Prerequisite: *MAT320*.

MAT450 COMBINATORICS (3 CREDITS)
Concerned with computing within discrete mathematical structures and combinatorial problem solving. Topics include sets and graphs; counting and enumeration techniques including recurrence relations and generating functions; and graph theory algorithms. Prerequisite: *MAT320* or *CPS330*.

MAT456 DETERMINISTIC METHODS OF OPERATIONS RESEARCH (3 CREDITS)

After a brief historical introduction, the course presents a detailed study of the 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 *MAT428*.

MAT460 GENERAL TOPOLOGY (3 CREDITS)
Development of topology from an axiomatic standpoint. Topics covered may include cardinal numbers, abstract spaces, uniform spaces, metric spaces, compactifications and the ring of continuous functions. Prerequisite: *MAT320* or *MAT441*.

MAT475 PROBABILITY (3 CREDITS)
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 *MAT229*.

MAT480 MATHEMATICAL STATISTICS (3 CREDITS)

Continuation of *MAT475*. 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: *MAT475*.

MAT490 SELECTED TOPICS IN MATHEMATICS (3 CREDITS)

Opportunity for the department to offer experimental courses at the senior level in areas of mathematics not covered by regular courses. Topics such as foundations of mathematics, history of mathematics, graph theory and advanced applications of mathematics are appropriate at this level.

MAT520 FOUNDATIONS OF NUMBER SYSTEMS (3 CREDITS)

Devoted to a detailed construction of the number systems. Natural numbers are defined by either set theory or Peano's axioms and their operations are discussed. Each of the larger systems is developed from this beginning. The algebraic definitions such as group, ring, integral domain, field, order, mapping and equivalence relation are introduced and discussed when appropriate.

MAT525 MODERN ALGEBRA (3 CREDITS)
Presents a detailed study of algebraic structures such as groups, rings, or fields, including their substructures, quotient and product structures and homomorphisms. Prerequisite: *MAT420* or *MAT520*.

MAT536 TOPOLOGY (3 CREDITS)
Study of topics in general topology, including some of the following topics: topological spaces, continuous functions, topological constructions, separation axioms, connected spaces, metric spaces, convergence, compact spaces and embeddings.

MAT538 TOPICS IN DISCRETE MATHEMATICS (3 CREDITS)

Discrete mathematics is one of the fastest growing areas of mathematics with applications to computer science, economics and political science, so it is currently important in K-12 mathematics education as well. This course provides an in-depth look at one or more of the many branches of discrete mathematics. Possible topics include graph theory, game theory, design theory, coding theory, combinatorics and cryptography, as well as selected topics of current research. Prerequisite: *MAT320*.

MAT547 REAL ANALYSIS (3 CREDITS)
Study of topics from the classical theory of functions of a real variable, including Lebesgue measure and integration theory. Prerequisite: Advanced Calculus.

MAT551 TECHNOLOGY IN THE TEACHING AND LEARNING OF MATHEMATICS (3 CREDITS)

This course 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 the instructor.

MAT552 MATHEMATICAL DISCOVERY (3 CREDITS)

Treats problems from many areas of mathematics with emphasis on understanding, learning, and teaching problem solving. The history of problem solving in general and its application to particular problems is investigated.

MAT556 TOPICS IN OPERATIONS RESEARCH (3 CREDITS)

Examines areas of operations research normally studied after a first course in linear programming. Deterministic topics might include integer programming, dynamic programming and non-linear programming. Probabilistic topics might include stochastic processes, queuing theory, reliability theory, decision analysis, utility theory, and applications. Prerequisites: *MAT428*, *MAT456* and *MAT475*.

MAT570 PRINCIPLES OF STATISTICAL MODELING (3 CREDITS)

This course examines general linear models and categorical data analysis. Topics covered include: multiple regression, including forward selection and stepwise selection; nonlinear models, such as exponential, logarithmic, and logistic; elementary design of experiments; one-way and two-way analysis of variance. Models for categorical data will also be discussed. Prerequisites: *MAT310*, *MAT475* or an equivalent course in theoretical statistics.

MAT582 SELECTED TOPICS IN ALGEBRA (3 CREDITS)

Presents special topics in algebra which are chosen for a more extensive study than is possible in other algebra courses. Usually the topics are in a special research area. Prerequisite: *MAT525*.

Shippensburg University

MAT584 SELECTED TOPICS IN GEOMETRY (3 CREDITS)

Presents a detailed study of an area of geometry, possibly including projective geometry, metric geometry or differential geometry.

MAT588 SELECTED TOPICS IN ANALYSIS (3 CREDITS)

Consists of special topics in analysis chosen from complex analysis, functional analysis, Fourier series and other areas of analysis.

Prerequisite: *MAT547*.

MAT589 MATHEMATICS CONFERENCE (3 CREDITS)

Concentrated one-week work conference studies the most recent curriculum developments in mathematics education or a particular related mathematical content area which is relevant to a particular group of conferences; for example, secondary school teachers. In addition to participating in all the activities of the conference, students enrolled for credit are expected to complete additional activities and assignments related to the theme of the conference. Maximum of three semester hour credits may be applied to degree requirements.

MAT590 SELECTED TOPICS IN APPLIED MATHEMATICS (3 CREDITS)

Presents a detailed study of some applied mathematics topics. Topics which may be covered include advanced differential equations, partial differential equations, Fourier series and numerical analysis.

MAT594 SELECTED TOPICS (1-3 CREDITS)

MAT595 INDEPENDENT READINGS AND RESEARCH IN MATHEMATICS (3 CREDITS)

Presents a detailed study of research and reading in an area of interest to both the student and the instructor. Special permission required for this course and the student must have the prerequisites for advanced courses in the area.

MAT599 INDEPENDENT STUDY (3 CREDITS)

Provides for qualified students to pursue special studies in the field of mathematics and/or mathematics education of particular interest and not normally covered in course work.

MAT600 ELEMENTS OF RESEARCH (3 CREDITS)

Devoted to research techniques and procedures in mathematics and/or mathematics education. The 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.

MAT609 INTERNSHIP (3 CREDITS)

MAT612 THESIS I (3 CREDITS)

MAT613 THESIS II (3 CREDITS)

Music (MUS)

MUS427 OPERA AND MUSIC THEATRE (3 CREDITS)

Explores the major points in the historical development of music drama from grand opera to musical comedy. When scheduling permits, the class attends a live production of an opera or musical comedy, either on campus or in a nearby city. Prerequisite: *MUS121* or permission of instructor.

MUS461 WORLD MUSIC (3 CREDITS)

Studies the folk music of selected countries as a product of the local culture, with analysis of musical styles, forms, and practices. Emphasis on listening to a wide range of recorded examples, utilizing the large folk record collection in the SU library.

MUS490 SELECTED TOPICS (1-3 CREDITS)

Philosophy (PHL)

PHL490 SELECTED TOPICS (1-3 CREDITS)

Physics (PHY)

PHY400 MECHANICS (4 CREDITS)

Intermediate course in the treatment of Newton's laws of motion, vector analysis and rectilinear and curvilinear motion in a plane. Further 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 is included in laboratory and problem solving periods. (3 periods lecture and 2 periods lab./wk.)

Prerequisites: *PHY206* and *MAT212*.

PHY401 ELECTRICITY AND MAGNETISM (4 CREDITS)

Advanced course in general electricity and magnetism. Electric and magnetic fields, D.C. and A.C. circuits, capacitance, inductance, electromotive force and electrical instruments are among the topics developed. (3 periods lecture and 2 periods lab./wk.)

Prerequisites: *PHY206* and *MAT212*.

Course Listings

PHY410 HEAT AND THERMODYNAMICS (4 CREDITS)

Intermediate course in heat. Basic concepts and principles are developed more intensely in the study of properties of gases and in thermodynamics. Some specific topics studied are temperature measurements, expansivity, specific heats, thermal conductivity of solids and liquids, thermal properties of gases, change of phase, and heat engines. (3 periods lecture and 2 periods lab./wk.)

Prerequisites: *PHY206* and *MAT212*.

PHY415 OPTICS (4 CREDITS)

Course in 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. (3 periods lecture and 2 periods lab./wk.) Prerequisites: *PHY330* and *MAT213* (may be taken concurrently).

PHY430 NUCLEAR PHYSICS (4 CREDITS)

Introductory treatment of nuclear structure, quantum mechanics, elementary particles, nuclear reactions, radiation, measurement, detection and safety, particle accelerators, and reactors. Lab experiments include statistics of counting, range of alpha particles, absorption of alpha, beta, and gammas, half-life, neutron induced activity. (3 periods lecture and 2 periods lab./wk.) Prerequisite: *PHY330*.

PHY441 QUANTUM MECHANICS (3 CREDITS)

Introduction to the 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 the 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 are studied. Heavy emphasis is placed throughout on applications to simple systems. (3 periods lecture/wk.). Prerequisite: *PHY306*.

PHY442 MATHEMATICAL PHYSICS (4 CREDITS)

Fairly rigorous development of mathematical techniques widely used in upper division physics courses. Topics generally include: functions of many variables and partial

differentiation, infinite series and expansion techniques, curvilinear coordinates, vector calculus and a study of ordinary and partial differential equations often encountered in physics. (3 periods lecture/wk.)

Prerequisites: *PHY206* and *MAT212*.

PHY450 SOLID STATE PHYSICS (3 CREDITS)

Introduction to solid state physics which studies the geometry of perfect crystals, symmetry of crystals, crystallographic notations, determination of crystal structure by x-ray diffraction, lattice vibration, specific heats of solids, and the electronic states in solids.

Physical properties of conductors and semiconductors, ferromagnetism, paramagnetism, ferroelectricity, nuclear magnet resonance, and electron spin resonance are topics included in this course. (2 periods lecture and 2 periods lab./wk.) Prerequisite: *PHY330*.

PHY490 SELECTED TOPICS (1-3 CREDITS)

Political Science (PLS)

PLS431 PENNSYLVANIA LOCAL GOVERNMENT (3 CREDITS)

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. Prerequisites: Nine hours in government including *GOV203* and *GOV213* or permission of the instructor.

PLS501 ORGANIZATIONAL THEORY AND BEHAVIOR (3 CREDITS)

Examines organization theory relevant to public administration. Focus on public organizations with attention to: bureaucracy and development of administrative thought; human behavior in organizations including individual behavior and motivation, group and interpersonal dynamics, and leadership modes; organization structure, process, and dynamics; organization development and change; and emerging perspectives in the field. Prerequisite: A course in government administration or approval of the instructor.

PLS502 HUMAN RESOURCES MANAGEMENT (3 CREDITS)

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. Course is planned primarily for the Master of Public Administration degree program. Prerequisite: Course in government administration or permission of the instructor.

PLS503 FOUNDATIONS OF PUBLIC BUDGETING AND FINANCE (3 CREDITS)

Provides the 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 CREDITS)

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 CREDITS)

Studies state governments in the American federal system and analyzes state government institutions and processes with special reference to Pennsylvania. Prerequisite: Course in American government or equivalent.

PLS512 INTERGOVERNMENTAL RELATIONS AND PROGRAMS (3 CREDITS)

Examines the developing area of intergovernment relations among federal, state, and local governments. Special emphasis is placed upon the work of the Advisory Commission on Intergovernmental Relations and implementation where feasible by state and local governments. Prerequisite: A course in government administration or permission of the instructor.

PLS521 COLLECTIVE BARGAINING AND LABOR RELATIONS IN THE PUBLIC SECTOR (3 CREDITS)

Reviews the whole area of the relations between public employees and public employers and the impact on public personnel administration. Some guidelines used for past contractual arrangements are covered. Course primarily for the Master of Public Administration degree program. Prerequisite: A course in government administration or permission of the instructor.

PLS551 PLANNING AND PUBLIC POLICY (3 CREDITS)

Examines the 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.

PLS552 SEMINAR IN URBAN-RURAL PLANNING (3 CREDITS)

Comprises an exhaustive study of planning concepts and processes used at state and local levels with special emphasis on Pennsylvania. Theories of comprehensive planning in the United States are also analyzed and compared. The constitutional bases for planning are examined as well as the new trends toward planning programming budgeting systems (PPBS). Prerequisite: Course in government administration or permission of the instructor.

PLS561 ADMINISTRATIVE LAW (3 CREDITS)

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. Prerequisite: Course in government administration or permission of the instructor.

PLS591 SELECTED TOPICS (3 CREDITS)

PLS601 RESEARCH METHODS (3 CREDITS)

Survey of the research process including the preparation of a research design, the use of theoretical framework, and the testing of hypothesis by gathering and analyzing data. Recommended the student complete this course as early in the graduate program as possible.

PLS603 PUBLIC POLICY ANALYSIS (3 CREDITS)

Briefly examines the policy making and policy implementation processes as they relate to the analysis of public policies. The major focus of the course is upon results-oriented management techniques, as well as a number of specific quantitative policy analysis techniques.

PLS605 APPLIED MANAGEMENT TECHNIQUES IN PUBLIC ADMINISTRATION (3 CREDITS)

Course requires students to demonstrate their ability to successfully resolve workplace situations by utilizing the principles and concepts of public management as presented in

the core and elective courses of the MPA curriculum. Employing the case study method, as well as additional reading, the principle focus of the course requires the students as individuals and in teams to work with the development and implementation of public policy. The course 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 CREDITS)

Opportunity to practice public administration theory and concepts as an observer and participant 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 CREDITS)

Opportunity to practice public administration theory and concepts as an observer and participant 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 CREDITS)

PLS622 THESIS II (3 CREDITS)

Psychology (PSY)

PSY405 QUALITATIVE RESEARCH METHODS (3 CREDITS)

Intended to give the student an understanding of and practice in phenomenological description, structural analysis, and other qualitative research methods.

PSY410 PSYCHOLOGY AND WOMEN (3 CREDITS)

Focus on views of women in early psychology, then turn to an in-depth analysis of the psychological aspects of issues affecting women. Topics include: current and historical psychological theories about women and sex differences; achievement motivation; women and mental illness; psychological aspects of menstruation; female sexuality; women's romantic relationships and friendships; reactions to victimization (rape, domestic violence; obsessive relationships and stalking, sexual abuse); psychological consequences of women's physical appearance; body image and eating disorders; prejudice and discrimination against women; consequences of inclusive vs. noninclusive language; improving communication and cooperation between men and women. Prerequisite: *PSY101*.

PSY420 HEALTH PSYCHOLOGY (3 CREDITS)

Study of psychological processes that help and hinder the maintenance of health. Health is viewed in a framework of positive aspects beyond just the absence of pathology. Holistic and Allopathic systems are compared and seen as complimentary. The organism is considered as a process of coordinated hierarchical self-regulating structures. Maintenance of proper psychophysical balance is seen as a means for management of stress and the immune system. Students have the opportunity to practice some wellness skills.

PSY430 SENSATION AND PERCEPTION (3 CREDITS)

Includes the study of human senses, sensory coding, neurological basis of sensation, perceptual processes in vision and hearing, perceptual development, theories of perceptual experience, adaptation level theory, person perception, self-perception and the physiological basis of perception. Some experiments performed in the area of sensation and perception.

PSY435 PSYCHOPHARMACOLOGY (3 CREDITS)

Examines the absorption, distribution, metabolism, and elimination of psychoactive drugs. The mechanism of drug action, addiction, tolerance, and physical dependence for drugs of abuse and therapeutic drugs is studied. Prerequisites: *PSY102* and *PSY320* or permission of the instructor.

PSY470 LEGAL PSYCHOLOGY (3 CREDITS)

Inform students about the relationship between psychology and law by introducing them to contemporary psychological knowledge as it applies to the legal system. Topics include: psychology of evidence, social psychology of the jury, the psychologist as an expert witness, psychology of jury selection, and research methods used by legal psychologists.

PSY475 INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY (3 CREDITS)

Surveys theoretical and empirical research relevant to the behaviors and experiences of individuals in relation to the human constructs called organizations and the economic activities called work.

PSY485 TESTS AND MEASUREMENTS (3 CREDITS)

Focuses on the statistical and psychological theory of tests and measurements. Prerequisite: A recent undergraduate statistics course.

PSY500 ADVANCED RESEARCH DESIGN AND STATISTICS (3 CREDITS)

Concerned with the 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: *Students are required to take and pass a competency exam prior to entry into the course.* Contact the professor or departmental secretary for test procedures.

PSY512 THEORIES OF LEARNING (3 CREDITS)

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 CREDITS)

Explores theories, issues, and research in personality, and encourages the psychology graduate student to develop his or her own pragmatic orientation.

PSY516 MOTIVATION (3 CREDITS)

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 PRINCIPLES OF COGNITION AND BEHAVIOR MODIFICATION (3 CREDITS)

Study of the applied techniques of modifying behavior and cognition. An adequate review of the cognition. Includes stimulus control processes, reinforcement theory, modeling, extinction, desensitization, counter-conditioning, cognitive restructuring, stress inoculation training. Prerequisite: PSY500.

PSY519 LIFE SPAN PSYCHOLOGY (3 CREDITS)

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 CREDITS)

Systematic study of physical, behavioral and psychological development of the individual from puberty to emerging adulthood.

PSY529 THE PSYCHOLOGY OF SENESCENCE (3 CREDITS)

Focuses on the process of aging during the later years of the life span. Developmental approach provides basis for the systematic study of aging. In addition, the interaction of the physiological, psychological, emotional, intellectual, and social aspects of aging are emphasized. Prerequisite: PSY519.

PSY530 STUDIES IN THE PSYCHOLOGY OF THE EXCEPTIONAL CHILD (3 CREDITS)

Concerned with the findings of significant studies on the exceptional child. Emphasis given to the contributions of research dealing with the characteristics of the exceptional child, identification, ways of meeting special needs and implications for the child and those who work with the child.

PSY531 ADVANCED COGNITIVE PSYCHOLOGY (3 CREDITS)

In-depth analysis of new issues within the field of cognitive psychology is the course focus. Sample content includes models of memory, processes of cognition, implicit versus explicit memory, and problem solving.

PSY532 ADVANCED PHYSIOLOGICAL PSYCHOLOGY (3 CREDITS)

Gives the student interested in brain-behavior relationships an introduction to experimental manipulations commonly used in the research area. Students do extensive reading within a selected area of research as preparation for a series of demonstrations using several invasive techniques routinely used in the field. Both neurophysiological and behavioral observations are made in order to test specific experimental hypotheses.

PSY533 SOCIAL COGNITION (3 CREDITS)

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 CREDITS)

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 CREDITS)

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.

PSY590 INTRODUCTION TO GROUP DYNAMICS (3 CREDITS)

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 CREDITS)

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.

PSY598 INDEPENDENT STUDY (3 CREDITS)

PSY612 THESIS I (3 CREDITS)

Designed to provide master's degree candidates with an 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 CREDITS)

Second of a two semester sequence of graduate courses 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*.

Reading (RDG)

RDG422 STUDIES IN CHILDREN'S LITERATURE (3 CREDITS)

Planned to evaluate the role and importance of literature in the elementary classroom. Emphasis placed on critical analysis of current research in the field and the incorporation of literature within the curriculum.

RDG490 SELECTED TOPICS (1-3 CREDITS)

RDG528 FOUNDATIONS OF LITERACY DEVELOPMENT (3 CREDITS)

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 such areas as: 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 CREDITS)

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 CREDITS)

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 will be 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 the instructor.

***RDG533* ADVANCED DIAGNOSIS AND ASSESSMENT IN READING (3 CREDITS)**

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 CREDITS)**

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 CREDITS)**

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.

***RDG554* PRACTICUM IN READING (3 CREDITS)**

Addresses a series of practical issues Teacher Leaders face on a daily basis. Topics addressed 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 CREDITS)**

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 CREDITS)**

***RDG599* INDEPENDENT STUDY (3 CREDITS)**

***RDG601* LANGUAGE DEVELOPMENT THEORY (3 CREDITS)**

Focuses on the 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 CREDITS)**

Reading Recovery is a system intervention that changes how educators think about learning and instruction. Teacher Leaders are key to creating systemic change. Course examines recent developments and research regarding issues Teacher Leaders are most likely to face when implementing Reading Recovery Programs in their respective sites.

***RDG605* READING RECOVERY TEACHER TRAINING I (4 CREDITS)**

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 the instructor.

***RDG606* READING RECOVERY TEACHER TRAINING II (3 CREDITS)**

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 the instructor.

***RDG609* INTERNSHIP (3 CREDITS)**

***RDG612* THESIS I (3 CREDITS)**

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 CREDITS)**

Continuation of *RDG612*.

Social Work (SWK)

SWK420 GENDER ISSUES FOR HELPING PROFESSIONALS (3 CREDITS)

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. Course may be taken for undergraduate or graduate credit.

SWK450 SOCIAL WELFARE POLICIES AND SERVICES (3 CREDITS)

Presents a framework for developing and analyzing contemporary social policies and programs. Course 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 CREDITS)

Provides the opportunity for a range of topics to explore issues and concerns for the helping professions. Designed for advanced undergraduate and graduate students.

Sociology (SOC)

SOC410 FAMILY AND SOCIETY (3 CREDITS)

Focuses on the family as a social institution, a social process, and as an interacting system. Includes emphasis on historical development and the 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 CREDITS)

Introduction to the study of sociology of law and also sociology in law. Course primarily looks at the legal systems of the United States, the primary actors in those legal systems, the social/cultural contests in which laws exist and are created, and how laws both reflect and affect the social structure. Course not designed to be a law course in the law school sense. Rather this course examines and applies sociological theories, concepts, and research to a particular arena of the social structure — laws and legal systems. Prerequisite: *SOC101*.

SOC450 CLASSICAL SOCIAL THEORY (3 CREDITS)

Provides a critical and comparative study of the development of sociology, giving historical backgrounds and presenting recent theories of society. Prerequisite: *SOC101*.

SOC452 CONTEMPORARY SOCIAL THEORY (3 CREDITS)

Focuses on twentieth-century American sociologists and their contributions to the discipline. Idiosyncratic, biographical considerations as well as a broader “schools of theory” perspective will be utilized. Significant theoretical issues relevant to contemporary sociology will also be reviewed. Prerequisite: *SOC450*.

SOC471 METHODS AND SOCIAL RESEARCH IN AGING (3 CREDITS)

Focuses on various research methodologies which have been, or exhibit potential to be used in studying Social Gerontology. Some review of basic principles, concepts, and assumptions given. Topics include: sampling aging, populations, historical research methods, various qualitative methodologies, various quantitative methodologies, evaluation research, ethical research issues. Research examples analyzed, discussed, developed. Prerequisites: *SOC101*, plus either *SOC272* or *SOC371*; *SOC395* is recommended, or permission of instructor.

SOC490 SELECTED TOPICS (1-3 CREDITS)

Spanish (SPN)

SPN400 SEMINAR: ADVANCED STUDIES IN SPANISH LANGUAGE AND LITERATURE (3 CREDITS)

Detailed examination of specific aspects of Spanish literature, authors, genres, literary and philosophic schools and linguistic problems such as translation and dialects. Seminar may be taken more than once provided a specific topic is not repeated. Prerequisite: Permission of the instructor.

SPN420 THEORY AND PRACTICE OF TRANSLATION (3 CREDITS)

Introduces students to various types and tools of translation and provides extensive practice in translating technical, commercial, diplomatic and literary materials. In addition to practice in written translation of Spanish to English, other elements of the translation field such as interpretation, adaptation and subtitling discussed.

SPN490 SELECTED TOPICS (3 CREDITS)

Special Education/ Education of Exceptional Children (EEC)

EEC411 INTRODUCTION TO EXCEPTIONALITY (3 CREDITS)

Survey course in the intellectual, physical, sensory, and social-emotional deviations of individuals as they pertain to the learning process and to social adjustment. Principles of educational programming for individuals with exceptionalities introduced. A review of the philosophical, theoretical, and research bases of special education is given consideration. Prerequisite: General Psychology.

EEC474 EDUCATIONAL NEEDS OF THE GIFTED CHILD (3 CREDITS)

Examines the characteristics and needs of gifted and talented students through the reading and discussion of case studies and the literature. The nature of desirable individual and group activities satisfying to gifted students is explored for use in the school program.

EEC490 SELECTED TOPICS (1-3 CREDITS)

EEC513 MEDICAL AND PSYCHOLOGICAL ASPECTS OF DISABILITY (3 CREDITS)

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*.

EEC543 SELECTED STUDIES IN SPECIAL EDUCATION (1-3 CREDITS)

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 the department chair.

EEC544 FORMAL/INFORMAL ASSESSMENT OF INDIVIDUALS WITH EXCEPTIONALITIES (3 CREDITS)

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. Prerequisite: *EEC411*.

EEC545 PROACTIVE APPROACHES FOR CLASSROOM AND BEHAVIOR MANAGEMENT (3 CREDITS)

Instruction and experience in individual and group aspects of classroom management. The course provides instruction 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: *EEC411*.

EEC546 VOCATIONAL EDUCATION OF INDIVIDUALS WITH DISABILITIES (3 CREDITS)

Information about the pre-vocational and vocational training of adolescents and young adults who have mental retardation, learning disabilities, or behavior disorders. Provides an understanding of curriculum developments, methods, materials and teaching techniques utilized in the development of skills and attitudes essential to success in the world of work.

EEC547 INSTRUCTIONAL CONTENT AND PRACTICES FOR SPECIAL EDUCATION (3 CREDITS)

Advanced study of the problems of curricular development including models, content, vehicles of implementation, and evaluation aspects. Students work to develop curricular solutions to professional and situational needs. Topics include the development of Individualized Education Programs (IEPs), working with supervisors, and instructional strategies for teaching academics, social, vocational, and leisure skills. Prerequisite: *EEC411*.

EEC550 FOUNDATIONS OF LEARNING DISABILITIES (3 CREDITS)

Study of historical, empirical, and research findings, forces and factors that make 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, the perceptual-conceptual learning processes and cerebral components. Additionally, the discussion includes the use of dietary, medical, and physiological intervention techniques, administrative programming, and parental concerns and responsibilities. New topics and new areas included as they are noted in the research literature. Methods of presentation is basically lecture, discussion, and media oriented. Prerequisite: *EEC411*.

***EEC551* PROGRAMMING AND INSTRUCTION FOR INDIVIDUALS WITH LEARNING DISABILITIES (3 CREDITS)**

Subject matter in reading, writing, spelling, math, and social skills at the elementary and secondary levels is discussed for students who have learning disabilities. Diagnostic results are utilized in developing appropriate remedial methods, activities, and IEPs. Course helps students become critical thinkers, creative planners, and effective practitioners. New topics and new areas included as they are noted in the research literature. Methods of presentation is basically lecture and discussion. Prerequisite: *EEC411*, *EEC550*.

***EEC552* LANGUAGE DISORDERS IN INDIVIDUALS WITH LEARNING DISABILITIES (3 CREDITS)**

Study of children's language development as a basis for the intensive study of language disorders in the individual with learning disabilities, disorders of oral language and usage, diagnosis and remediation of the disorder. The emphasis is 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 MENTAL RETARDATION/DEVELOPMENTAL DISABILITIES (3 CREDITS)**

Study of the learning capabilities and processes of persons who have significant impairment in intellectual functioning and adaptive behaviors. Emphasis on understanding cognitive development and the impact of cognitive disabilities on the lives of individuals with mental retardation/developmental disabilities across the life span. Prerequisite: *EEC411*.

***EEC561* PROGRAMMING AND INSTRUCTION FOR INDIVIDUALS WITH MENTAL RETARDATION/DEVELOPMENTAL DISABILITIES (3 CREDITS)**

Study of educational strategies and materials for use with students who have moderate to profound levels of impairment in intellectual functioning. 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. Prerequisites: *EEC411*, *EEC560*.

***EEC562* PROGRAMMING AND INSTRUCTION FOR INDIVIDUALS WITH SEVERE AND PROFOUND MENTAL RETARDATION (3 CREDITS)**

Studies the educational processes of students with severe and profound mental retardation. Course 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*.

***EEC570* FOUNDATIONS OF BEHAVIOR DISORDERS (3 CREDITS)**

Explores the historical and current philosophical models and approaches in the area behavior disorders including definitions, characteristics, assessments, educational, mental health, and the interdisciplinary process for working with children and youth. Major disorders and characteristics of individuals with behavior disorders are identified and studied along with implications for educators, parents, peers, and other professionals. Predominant theoretical models, significant educators/theorists, and other interventions are identified, discussed, applied, and synthesized relative to their influence on the educational system in meeting the diverse needs of children and youth with behavior disorders and their families. Contemporary issues and trends examined to understand social and emotional problems of behavior disorders. Prerequisite: *EEC411*.

***EEC571* PROGRAMMING AND INSTRUCTION FOR INDIVIDUALS WITH BEHAVIOR DISORDERS (3 CREDITS)**

This methods course focuses on development of appropriate curriculum and strategies based upon individual needs, practical application and methods, and assessment. Students have a field experience working with students with

Shippensburg University

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 CREDITS)

Explores strategies and procedures for individual and group counseling, role playing, and discussion groups. These techniques are built on an 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 CREDITS)

Practicum is designed to extend the student's professional preparation beyond the resources of the college to include the resources of the community and region. The practicum is intended to permit the graduate student to engage in supervised professional activities in selected cooperating community agencies, local education agencies, or intermediate units. Prerequisites: *EEC544*, *EEC545*, *EEC551*, *EEC561*, *EEC571*.

EEC591 PRACTICUM II IN SPECIAL EDUCATION (3 CREDITS)

This supervised intensive field experience is 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: *EEC590*.

EEC592 CLINICAL ASSESSMENT OF INDIVIDUALS WITH EXCEPTIONALITIES (3 CREDITS)

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 the student and his/her parents. *Offered only during the summer session*. Prerequisite: Permission of the adviser.

EEC594 SELECTED TOPICS (1-3 CREDITS)

EEC596 PRACTICUM SEMINAR (3 CREDITS)

The purpose of this course is to broaden the knowledge of the characteristics of students with disabilities, instructional models and programmatic planning, solving real-life management problems, material problems, and teaching problems in a sharing and seminar setting. Course discusses emerging trends and issues in special education.

EEC599 INDEPENDENT STUDY (3 CREDITS)

EEC609 INTERNSHIP (3 CREDITS)

Speech (SPE)

SPE402 ORAL COMMUNICATION THEORY (3 CREDITS)

Emphasizes theories developed by speech specialists and social scientists dealing with oral communication, its reception and its effects. Units such as listening, psychological factors in persuasion, audience analysis, teaching and learning through oral communication, selective perception and retention, and teaching effective oral communication are covered.

SPE450 DEVELOPMENT OF ORAL PERSUASION (3 CREDITS)

Analyzes the foundations of rhetorical theory from Aristotle to the present. Much emphasis placed upon the importance and place of Aristotle's theory. The ways in which this led into the works of the Roman rhetoricians Cicero and Quintilian is investigated along with an analysis of key works. The Sophistic movement and resulting dearth of rhetorical development during the early Medieval period is shown in relation to emerging concern for creative thinking at the end of the Middle Ages, with the resulting resurgence of rhetorical development.

Teacher Education (TCH)

TCH410 FOSTERING CREATIVITY AND HIGHER-ORDER THINKING SKILLS (3 CREDITS)

Explores the creative process and optimal conditions for cultivation of creativity and improving thinking skills.

TCH423 INTEGRATING LITERATURE IN MIDDLE GRADES (3 CREDITS)

Focuses on broadening knowledge base and understanding of children's/young adults' literature available for use with students in content area study. Literature will be discussed along 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 CREDITS)

Surveys the 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 CREDITS)

Presents a 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.

TCH475 INCLUSIVE EDUCATION: A PRACTICAL APPROACH FOR EDUCATORS (3 CREDITS)

Explores the needs of the slow learning child as they are related to curriculum content, methods of teaching, use and interpretation of test results, and desirable equipment and facilities. Emphasis is placed upon social and economic aspects of a gradual transition from school to community activities.

TCH490 SELECTED TOPICS (1-3 CREDITS)

TCH501 EFFECTIVE TEACHING: THEORY AND PRACTICE (3 CREDITS)

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 as well as practical applications of various discipline models, creative teaching techniques, and self-assessment devices presented.

TCH511 ELEMENTARY SCHOOL CURRICULUM (3 CREDITS)

Surveys existing school programs and the literature of research to determine and evaluate curricular trends in elementary education. Investigation is made into such areas as the point of view toward purposes of education, content, scope and sequence, relationships of curricular and co-curricular activities and evaluation. Required for admission to candidacy for elementary education majors.

TCH520 TEACHING THE COMMUNICATION ARTS (3 CREDITS)

Explores promising strategies for assisting children in development of language processes. Students identify timely topics of special significance based upon review of recent professional literature. Knowledge in these areas reviewed, synthesized, and shared with emphasis upon application to specific classroom circumstances. Prerequisite: Foundational-level course in reading/language arts or permission of the instructor.

TCH524 SCHOOL CURRICULA AND INSTRUCTIONAL STRATEGIES (3 CREDITS)

Emphasis upon the basic characteristics of classroom instruction, key elements of the instructional process, and the organization of the classrooms for effective instruction. Examines curricular foundations. Surveys the scopes and sequences of existing curricula areas of basic education (K-12). Reviews these curricula for instructional strategies suggested by current research.

TCH542 MODERN ELEMENTARY SCHOOL MATHEMATICS: ITS CONTENT AND METHOD (3 CREDITS)

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 CREDITS)**

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 CREDITS)**

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 CREDITS)**

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* SOCIAL STUDIES IN CHILDHOOD EDUCATION (3 CREDITS)**

Studies the social forces, past and present, at work in our world today as they affect the elementary school child and the rest of humanity. The identification and review of skills, understandings and attitudes and an analysis of the areas of study from which children will benefit are engaged in as basic experiences in social studies curriculum development. Various programs in elementary social studies are investigated and techniques for implementing social studies learning are demonstrated and explored. Prerequisite: An undergraduate course in teaching of social studies or permission of the instructor.

***TCH570* PERCEPTUAL-MOTOR DEVELOPMENT AND MOVEMENT EXPERIENCE FOR CHILDREN (3 CREDITS)**

Considers the complex area of motor behavior in the young child from birth to eight years of age. Focus is on the process of developing perception and its relationship to motor behavior, providing theoretical information and practical experience in the areas of motor education, basic motor development and motor fitness as part of a well integrated program of physical education.

***TCH575* ADVANCED CHILD DEVELOPMENT (3 CREDITS)**

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 CREDITS)**

***TCH599* INDEPENDENT STUDY (3 CREDITS)**

***TCH600* ELEMENTS OF RESEARCH (3 CREDITS)**

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*, Thesis, may use the course to assist them in preparing a research proposal. *TCH600* must be completed within the first 15 credits leading to a master's degree.

***TCH605* RESEARCH SEMINAR (3 CREDITS)**

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 (3 CREDITS)**

***TCH612* THESIS I (3 CREDITS)**

***TCH613* THESIS II (3 CREDITS)**

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English	Dauphin Humanities Center DHC113	1495
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Health and Physical Education	Henderson Gym HG 101B	1721
History and Philosophy	Dauphin Humanities Center DHC 213	1621
Management/Marketing	Grove Hall GRH 224	1439
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Military Science	Wright Hall WRI 206	1782
Modern Languages	Faculty Office Building FOB109	1635
Music	Memorial Auditorium MA 102A/B	1638
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(As of June 2002)

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B.A., Winthrop University; M.S.W., University of South Carolina; Ph.D., University of Wisconsin, Madison.
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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., Indiana University (Pa.); M.S., Ph.D., University of Tennessee
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B.S., Michigan State University; M.A., Georgetown University; Ph.D., Pennsylvania State University
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B.S., Salem College; M.Ed., University of Cincinnati; Ed.D., West Virginia University
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B.S. and M.Ed., Shippensburg University; D.Ed., Temple University
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B.S., M.Ed., and D.Ed., Pennsylvania State University
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B.S.B.A., Henderson State University; M.S., Frostburg State College; M.A. and Ph.D., West Virginia University

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- B.S., Shippensburg University; M.B.A., Arizona State University; D.Ed., Pennsylvania State University
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B.A., Alfred University; M.S., Shippensburg University; Ed.D., Pennsylvania State University
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A.B., Susquehanna University; M.S.L.S., Drexel University; D.A., Nova University
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M.B.A., Southeastern Louisiana University

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A.B. and A.M., University of Pennsylvania; Ed.D., Temple University
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A.B., Columbia College; M.Ed., University of Arizona; J.D., Vanderbilt University; Ph.D., University of Oregon

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B.A., Ohio Northern University; M.A., Bowling Green State University; Ph.D., University of Maryland
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B.S., Loyola College of Maryland; Ph.D., University of Maryland, Baltimore
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M.A., Teaching School for International Training
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B.S., M.B.A., West Virginia University; D.B.A., George Washington University
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B.S., University of Maryland; J.D., Dickinson School of Law
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B.A., Pennsylvania State University; M.S., Ph.D., Oklahoma State University
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B.A., University of Iowa; M.A., Ph.D., Indiana University
- JANE H. EHEMANN, *Professor of Geography-Earth Science* (1978)
B.A., College of Wooster; M.A., University of Pittsburgh; Ed.D., University of Georgia
- LUCINDA ELLIOTT, *Assistant Professor of Biology* (1998)
B.S., Marshall University; Ph.D. University of Kentucky
- MAXINE ENDERLEIN, *Professor of Business Education and Office Administration* (1984)
B.S., M.Ed., D.Ed., Pennsylvania State University

Faculty

- DOUGLAS E. ENSLEY, *Associate Professor of Mathematics/Computer Science* (1993)
B.S., University of Alabama; M.S., Ph.D., Carnegie Mellon University
- MARGARET EVANS, *Assistant Professor of Communication/Journalism* (1996)
B.A., Goddard College; M.S.A., Rochester Institute of Technology
- THOMAS A. EVITTS, *Assistant Professor of Mathematics and Computer Science* (1999)
B.S.Ed., M.Ed., Millersville University
- ALISON E. FEENEY, *Assistant Professor of Geography-Earth Science* (1998)
B.A., University of Connecticut; M.S., Portland State University; Ph.D., Michigan State University
- THOMAS P. FEENEY, *Assistant Professor of Geography-Earth Science* (1997)
B.S., State University of New York at Oneonta; M.S., Western Kentucky University; Ph.D., University of Georgia
- BRENDAN P. FINUCANE, *Professor of Economics* (1982)
B.A. Shippensburg University; M.A., Ph.D., University of Pittsburgh
- EUGENE R. FIORINI, *Associate Professor of Mathematics and Computer Science* (1994)
B.S., Pennsylvania State University; M.S., Ph.D., University of Delaware
- CHI-WING ROBERT FOK, *Assistant Professor of Finance* (2000)
Honor Diploma, Hong Kong Baptist College; M.A., Ph.D., University of Alabama
- KIM E. FOX, *Assistant Professor of Political Science* (1993)
B.S., U.S. Military Academy; M.A., Jacksonville State University; M.S.S.M., University of Southern California; Ph.D., Virginia Polytechnic Institute and State University
- O. KENNETH FRANCE, *Professor of Psychology* (1978)
B.A., Wake Forest University; M.S., Ph.D., Florida State University
- DONALD K. FRAZIER, *Associate Professor of Political Science* (1984)
B.A., Slippery Rock University; M.A., Ph.D., Southern Illinois University
- ROBERT M. FREEMAN, *Associate Professor of Criminal Justice* (1994)
B.A., M.A., Indiana University (Pa.); Ph.D., University of Maryland
- KURTIS G. FUELLHART, *Assistant Professor of Geography-Earth Science* (1999)
B.S., University of Vermont; M.B.A., University of Connecticut; Ph.D., Pennsylvania State University
- ANNE GERO, *Professor of Social Work* (1983)
B.A., Marycrest College; M.S.W., Ph.D., University of Iowa
- RICHARD W. GIBBS, *Associate Professor of Communication/Journalism* (1990)
B.S., M.A., Brigham Young University
- DAVID GODSHALK, *Associate Professor of History* (1993)
B.A., University of South Carolina; M.A., Ph.D., Indiana University
- EDWARD S. GOODHART, *Professor of Accounting* (1984)
B.S., M.Ed., Shippensburg University; Ph.D., Pennsylvania State University
- JOHN H. GREZLAK, *Professor of Chemistry* (1978)
B.S., Pennsylvania State University; M.A., Ph.D., Princeton University
- SARA A. GROVE, *Associate Professor of Political Science* (1992)
B.A., Pennsylvania State University; M.A., Ph.D., University of North Carolina; J.D., Pennsylvania State University Dickinson School of Law
- DONNA C. HALE, *Professor of Criminal Justice* (1988)
A.A., B.S., University of Cincinnati; M.S., Ph.D., Michigan State University
- ROBERT L. HALE, *Associate Professor of Psychology* (1992)
B.A., University of Maine; B.A., University of Southern Maine; M.S., Northwestern State University of Louisiana; Ph.D., University of Oklahoma
- LYNN HARRIS, *Professor of Management and Marketing* (1975)
B.S., University of California, Los Angeles; M.B.A., D.B.A., University of Southern California
- WILLIAM C. HARRIS, *Assistant Professor of English* (2001)
B.A. Amherst College; M.A., Ph.D., Johns Hopkins University
- SHARON HARROW, *Assistant Professor of English* (2000)
B.A., University of Michigan; M.A., Ph.D., University of Arizona
- DAVID A. HASTINGS, *Assistant Professor of Mathematics and Computer Science* (1999)
B.S., M.A., and Ph.D., University of Massachusetts

Shippensburg University

- LOUISE HATFIELD, *Professor of Management and Marketing* (1991)
B.S., Iowa State University; M.B.A., Drake University; Ph.D., Virginia Commonwealth University
- DOROTHEA B. HEITSCH, *Assistant Professor of Modern Languages* (1999)
M.A., Eberhard-Karls Universität, Tübingen; Ph.D., University of Washington
- SHIRLEY A. HESS, *Assistant Professor of Counseling* (2001)
B.S., West Chester University; M.Ed., American University; Ph.D., University of Maryland
- ROBERT HEWITT, *Professor of Social Work* (1987)
B.S.W., Bluffton College; M.S.W., Wayne State University; Ph.D., University of Pittsburgh
- CHARLES J. HOLLON, *Professor of Management and Marketing* (1974)
B.A., State University of New York at Binghamton; M.B.A., State University of New York at Albany; Ph.D., Syracuse University
- STEPHEN J. HOLOVIK, *Professor of Management and Marketing* (1980)
B.S.B.A., Henderson State University; M.S., Frostburg State College; M.A., Ph.D., West Virginia University
- LINDA A. HOOVER, *Associate Professor of Teacher Education* (1993)
B.S., M.Ed., Shippensburg University; Ph.D., Pennsylvania State University
- THOMAS L. HOZMAN, *Professor of Counseling* (1973)
B.A., St. John's College; M.S., Ph.D., Purdue University
- MARGARETHA HSU, *Professor of Management Science* (1979)
B.A., Fu Jen Catholic University, Taiwan; M.A., Oakland University; M.S., Ph.D., Virginia Polytechnic Institute & University
- TODD M. HURD, *Assistant Professor of Biology* (2000)
B.S. and Ph.D., SUNY College of Environmental Science and Forestry; M.S., University of Maine
- DEBORAH JACOBS, *Assistant Professor of Social Work* (1992)
B.S.W., Temple University; M.S.W., University of Michigan; Ph.D., Brandeis University
- JAMES L. JENGELESKI, *Professor of Criminal Justice* (1979)
B.A., Glassboro State College; M.S., American University; Ed.D., Temple University
- HUGH E. JONES, *Professor of Government* (1970)
B.A., Lehigh University; M.A., Duke University; Ph.D., Johns Hopkins University
- LEONARD K. JONES, *Professor of Mathematics and Computer Science* (1985)
B.S., Towson State University; M.A., Pennsylvania State University; Ph.D., University of Virginia
- JERRY N. JUDY, *Professor of Sociology* (1972)
B.S., West Virginia University; M.A. and Ph.D., Michigan State University
- CAROL KAHLE, *Associate Professor of Teacher Education* (1991)
B.A., Western Illinois University; M.Ed., M.F.A. and Ed.D., Florida Atlantic University
- KIM KLEIN, *Assistant Professor of History* (1997)
B.A., M.A., Creighton University; Ph.D., Johns Hopkins University
- LARRY H. KLOTZ, *Professor of Biology* (1978)
B.S., Muhlenberg College; M.S. and Ph.D., Cornell University
- TRACEY KNERR, *Assistant Professor of Teacher Education* (2000)
B.S., M.Ed., Indiana University (Pa.); Ed.D., Rutgers University
- JONATHAN W. KOHN, *Professor of Information Management and Analysis* (1976)
B.S.E.E., Columbia University School of Engineering; M.S.E.E., M.S.I.E., Ph.D., New York University School of Engineering
- WALTER KONETSCHNI, *Professor of Sociology and Anthropology* (1967)
B.S., Shippensburg University; M.A., Kent State University; Ph.D., University of Maryland
- KURT L. KRAUS, *Assistant Professor of Counseling* (1998)
B.S., M.Ed., and Ed.D., University of Maine
- ALICE PAULINE KUHNS, *Associate Professor of Teacher Education* (1988)
B.A., University of Maryland; M.Ed., George Mason University; Ed.D., Virginia Polytechnic Institute and State University
- CARLA T. KUNGL, *Assistant Professor of English* (2001)
B.A., Wittenberg University; M.A., Ph.D., Case Western Reserve University
- KATHRYN A. KURDT, *Psychological Counselor in the Counseling Center* (1997)
B.S., College of William and Mary; M.S., Shippensburg University; Ph.D., University of Virginia

Faculty

- JEFFREY LACY, *Associate Professor of Chemistry* (1984)
B.S., Colorado State University; Ph.D., University of Delaware
- REBECCA LaFOUNTAIN, *Professor of Counseling* (1991)
B.A., Grand Valley State University; M.S., Iowa State University; Ed.D., College of William and Mary
- DANIEL Y. LEE, *Professor of Economics* (1986)
B.S., Chonnam National University, South Korea; M.A., Ph.D., University of Pittsburgh
- JOHN H. LEMMON, *Assistant Professor of Criminal Justice* (1999)
B.A., Grove City College; M.S.Ed., Duquesne University; M.A., University of Pittsburgh; Ph.D., University of Maryland
- DAVID LONG, *Professor of Biology* (1991)
B.S.Ed., Millersville University; M.S. and Ph.D., Texas Tech University
- XIN-AN (LUCIAN) LU, *Assistant Professor of Speech and Theatre Arts* (2000)
B.A., Shaanxi Teachers University; M.A., Foreign Affairs College; Ph.D., Southern Illinois University
- MICHAEL J. LYMAN, *Assistant Professor of Social Work* (2001)
B.S., Brigham Young University; M.S.W., University of Utah
- DANIEL P. MACK, *Professor of Chemistry* (1974)
B.S., Marquette University; Ph.D., Pennsylvania State University
- SCOTT F. MADEY, *Assistant Professor of Psychology* (1998)
B.S., University of Texas; Ph.D., Cornell University
- TIMOTHY J. MARET, *Associate Professor of Biology* (1996)
B.S., Eastern New Mexico University; M.S., University of Wyoming; Ph.D., Arizona State University
- PAUL G. MARR, *Associate Professor of Geography-Earth Science* (1996)
B.A., M.S., University of North Texas; Ph.D., University of Denver
- MICHAEL T. MARSH, *Associate Professor of Management Science* (1991)
B.S., University of Nebraska; M.S., Naval School; M.B.A., State University of New York; Ph.D., Ohio State University
- MICHAEL R. MARSHALL, *Associate Professor of Biology* (1988)
B.A., Kutztown University; M.S., West Virginia University; Ph.D., University of Nebraska
- STEPHEN A. MATHIS, *Professor of Economics* (1979)
B.S., University of South Dakota; Ph.D., Iowa State University
- DONALD F. MAYER, JR., *Professor of Political Science* (1968)
B.A., Earlham College; M.A. and Ph.D., American University
- VINCENT F. McCORMACK, *Professor of Accounting* (1981)
B.S., University of Maryland; M.B.A. and Ph.D., Michigan State University
- KATHERINE G. McGIVNEY, *Assistant Professor of Mathematics and Computer Science* (2000)
B.S., University of Hartford; M.S., Northeastern University; Ph.D., Lehigh University
- DIANE T. McNICHOLS, *Professor of Mathematics and Computer Science* (1987)
B.A., Hunter College; M.S. and Ph.D., University of South Carolina
- MICHAEL McNICHOLS, *Associate Professor of Biology* (1987)
B.S., York College; M.S., University of South Carolina; Ph.D., Virginia Polytechnic Institute
- RONALD MEHIEL, *Professor of Psychology* (1988)
B.S. and Ph.D., University of Washington
- DANIEL J. MENNITI, *Professor of Criminal Justice* (1983)
B.A., St. Charles Seminary; S.T.B. and S.T.L., Gregorian University (Rome, Italy); M.A. and Ph.D., Catholic University of America; J.D., American University
- SUSAN MEO, *Associate Professor of History* (1992)
B.S., Bloomsburg University; M.S., Kutztown University; Ph.D., University of Pittsburgh
- HELEN B. MILTIADES, *Assistant Professor of Gerontology* (2001)
B.S., Malone College; M.S., Ph.D., University of Massachusetts
- DAVID J. MOONEY, *Assistant Professor of Mathematics and Computer Science* (1996)
B.A., Lehigh University; B.S., Glassboro State College; M.S., Ph.D., University of Delaware
- SUZANNE MORIN, *Associate Professor of Psychology* (1991)
B.S., Nebraska Wesleyan University; M.A. and Ph.D., University of Connecticut

Shippensburg University

- JOHN S. MOWBRAY, JR., *Professor of Mathematics and Computer Science* (1965)
 A.B., Franklin and Marshall College; M.S., Temple University; M.A., Bucknell University; Ph.D., University of Pittsburgh
- BEVERLY MUSTAINE, *Professor of Counseling* (1990)
 B.A., University of Cincinnati; M.Ed., Xavier University; Ed.D., University of Cincinnati
- MARY D. MYERS, *Professor of Accounting* (1985)
 B.S., Indiana University (Pa.); M.B.A., Shippensburg University; Ph.D., University of Maryland
- ALAIN P. NGANANG, *Assistant Professor of Modern Languages* (2000)
 B.A., University of Yaoundé; M.A., Johann Wolfgang Goethe Universität/University of Yaoundé; Ph.D., Johann Wolfgang Goethe Universität/Frankfurt am Main
- EARL NOLENBERGER, *Associate Professor of Biology* (1973)
 B.A. and M.S., Shippensburg University; D.Ed., Pennsylvania State University
- FREDERICK L. NORDAI, *Professor of Mathematics and Computer Science* (1986)
 B.S., Shippensburg University; M.S., Northern Illinois University; M.S., University of Florida; Ph.D., Virginia Polytechnic Institute and State University
- CHERYL L. OLSEN, *Assistant Professor of Mathematics and Computer Science* (1997)
 B.S., Nebraska Wesleyan University; M.S. and Ph.D., University of Nebraska
- CRAIG W. OYEN, *Assistant Professor of Geography-Earth Science* (1998)
 B.S., North Dakota State University; Ph.D., University of Florida
- ROBERTA L. PAGE, *Assistant Professor of Health and Physical Education* (2000)
 B.S., Slippery Rock University; M.S., Western Maryland College
- MING-SHIUN PAN, *Professor of Finance* (1989)
 B.A., Fu-Jen Catholic University; M.A., University of Alabama
- WILLIAM J. PATRIE, *Assistant Professor of Biology* (1993)
 B.A., Hope College; Ph.D., Cornell University
- E. BRITT PATTERSON, *Associate Professor of Criminal Justice* (1992)
 B.A., Waynesburg College; M.A., West Virginia University; Ph.D., University of Maryland
- CHANDRIKA PAUL, *Associate Professor of History* (1995)
 B.S., University of Calcutta; M.S., Ph.D., University of Cincinnati
- GREGORY S. PAULSON, *Associate Professor of Biology* (1994)
 B.A., Miami University; M.S., University of Hawaii; Ph.D., Washington State University
- RALPH J. PAYNE, *Professor of Psychology* (1972)
 B.S. and M.S., Brigham Young University; Ph.D., University of Minnesota
- DAVID G. PECK, *Professor of Sociology* (1978)
 B.A., University of New Mexico; M.A., Illinois State University; Ph.D., Washington State University
- RANDALL PELLOW, *Professor of Teacher Education* (1971)
 B.S., State University of New York at Oswego; M.Ed. and D.Ed., Pennsylvania State University
- REBECCA W. PETTIT, *Assistant Professor of Teacher Education* (1998)
 B.S. and M.S., University of Nevada; Ph.D., Oregon State University
- MARCELA PINEDA, *Assistant Professor of Modern Languages* (2000)
 B.A., Rutgers University; M.A., Middlebury College
- RUTHANNE PITKIN, *Professor of Biology* (1987)
 B.S. and Ph.D., University of Massachusetts; M.S., University of Washington
- GEORGE M. POMEROY, *Assistant Professor of Geography-Earth Science* (1999)
 B.A. and M.S., Western Washington University; Ph.D., University of Akron
- ROBERT C. POSATKO, *Professor of Economics* (1981)
 B.A., King's College; M.A. and Ph.D., Pennsylvania State University
- KIMBERLY PRESSER, *Assistant Professor of Mathematics and Computer Science* (2000)
 B.S., Pepperdine University; M.S., North Carolina University; Ph.D., University of South Carolina
- JOHN QUIST, *Assistant Professor of History* (1997)
 B.A., Brigham Young University; M.A., Ph.D., University of Michigan
- AGNES C. RAGONE, *Assistant Professor of Modern Languages* (1998)
 B.A. and M.A., Louisiana State University; Ph.D., University of Texas
- VERA REBER, *Professor of History* (1970)
 B.A., Indiana Central College; M.A., Ph.D., University of Wisconsin

Faculty

- THOMAS P. REINWALD, *Professor of Economics* (1974)
B.A. and M.A., Miami University, Ohio; Ph.D., University of Illinois
- WILLIAM C. RENSE, *Professor of Geography-Earth Science* (1980)
B.A. and M.A., University of Southwestern Louisiana; Ph.D., Oregon State University
- HONG RIM, *Professor of Finance* (1986)
B.S., Korea University; M.B.A., Seoul National University; Ph.D., Pennsylvania State University
- DENNIS W. RITZ, *Associate Professor of Music* (1990)
B.S.Mus.Ed., M.M.Ed., Mansfield University; D.M.A., Michigan State University
- ROBERT D. ROLLINS, *Professor of Business Information Systems* (1969)
B.S., Appalachian State University; M.S., University of Tennessee; D.Ed., Pennsylvania State University
- ERIC ROSENTHAL, *Assistant Professor of Counseling* (2000)
B.A., Brandeis University; M.S., Ph.D., University of Florida
- HERBERT J. ROTH, *Professor of Finance* (1974)
B.S., M.S., & Ph.D., Ohio State University
- WINFREY M. RUFFIN, JR., *Associate Professor of Social Work* (1972)
B.S., M.S., Kansas State College; Ph.D., South Dakota University
- JAMES A. RYLAND, *Professor of Educational Administration/Foundations* (1992)
B.S., Clarion University; M.A., University of Akron; Ph.D., Kent State University
- VONNIE G. RYLAND, *Assistant Professor of Teacher Education* (1994)
B.A., West Virginia Wesleyan; M.Ed., Edinboro University; Ph.D. Pennsylvania State University
- TORU SATO, *Assistant Professor of Psychology* (2000)
B.A., Kwansai-gakuin University; M.A., Ph.D., York University
- MARK H. SCHROEDER, *Professor of Computer Science* (1983)
B.S., Wisconsin State University; M.S., University of Wisconsin; Ed.D., University of Northern Colorado; M.S., East Texas State University
- NATALIA SEMUSHKINA, *Assistant Professor of Physics* (2000)
M.A., St. Petersburg State University; Ph.D., Russian Academy of Science
- CHRISTINE SENECAI, *Assistant Professor of History* (2000)
B.A., University of California at Santa Barbara; Ph.D., Boston College
- ROBERT J. SENN, *Professor of Business Law* (1974)
B.S., Utica College of Syracuse University; J.D., Syracuse University College of Law; M.B.A., Shippensburg University
- ROBERT SHAFFER, *Assistant Professor of History* (1998)
B.A., Yale University; M.A., New York University
- BLAINE F. SHOVER, *Professor of Music* (1978)
B.S., Pennsylvania State University; M.M., Temple University; D.M.A., University of Illinois
- JOHNATHAN SKAFF, *Assistant Professor of History* (1999)
B.A. Hobart College; M.A., Ph.D., University of Michigan
- GEORGE SNOW, *Professor of History* (1967)
A.B., M.A., Ohio State University; Ph.D., Indiana University
- GERALD E. STAFFORD, *Professor of Teacher Education* (1971)
B.A., Cedarville College; B.S., Central State University; M.Ed. and Ph.D., University of Maryland
- GLENN E. STAMBAUGH, *Assistant Professor of Mathematics and Computer Science* (1980)
B.A., Lehigh University; M.A., University of North Carolina; M.S., Shippensburg University
- DIANE STANITSKI-MARTIN, *Assistant Professor of Geography-Earth Science* (1997)
B.A., State University of New York at Geneseo; M.A. and Ph.D., Arizona State University
- NANCY STANKUS, *Associate Professor of Educational Administration* (1986)
B.S. and M.Ed., Shippensburg University; D.Ed., Pennsylvania State University
- GEORGE L. STRINE, *Professor of Teacher Education* (1969)
B.S., Bloomsburg University; M.Ed. and D.Ed., Pennsylvania State University
- GWENDOLYN SWINGLER, *Assistant Professor of Teacher Education* (2001)
B.S., M.S., Shippensburg University
- RONALD K. TAYLOR, *Associate Professor of Management and Marketing* (1994)
B.S., M.S., Western Illinois University; D.B.A., Southern Illinois University

Shippensburg University

- YVONNE D. TAYLOR, *Assistant Professor of Teacher Education* (1992)
B.S. and M.Ed., Shippensburg University, Ed.D., Nova University
- ADRIAN TOMER, *Associate Professor of Psychology* (1992)
B.A. and M.A., Hebrew University of Jerusalem; Ph.D., University of Florida
- JOANNE N. TUCKER, *Assistant Professor of Information Management and Analysis* (1996)
B.B.A., M.B.A., Ph.D., University of North Texas
- RONNIE B. TUCKER, *Assistant Professor of Political Science* (2000)
B.A., University of Arkansas at Monticello; M.A., University of Arkansas; Th.D., New World Bible Institute; Ph.D., Mississippi State University
- MARY JANE URBANOWICZ, *Professor of Teacher Education* (1971)
B.S., Kent State University; M.A. and Ed.D., University of Northern Colorado
- ELIZABETH VAUGHAN, *Associate Professor of Teacher Education* (1992)
B.S. and M.Ed., Stephen F. Austin State University; Ph.D., University of South Florida
- THOMAS P. VERNEY, *Professor of Management* (1979)
B.A., Pennsylvania State University; M.A. and Ph.D., Bowling Green State University
- PATRICIA WALTERMYER, *Assistant Professor of Communication/Journalism* (1985)
B.A., Elizabethtown College; M.S., Shippensburg University; J.D. and L.L.M., Dickinson School of Law
- JERRY A. WEIGLE, *Professor of Business Law* (1968)
A.B., Gettysburg College; J.D., West Virginia University
- KIM A. WEIKEL, *Associate Professor of Psychology* (1994)
B.A., Lycoming College; M.A., University of Dayton; Ph.D., Kent State University
- CAROL WELLINGTON, *Assistant Professor of Mathematics and Computer Science* (1997)
B.S., University of Delaware; M.S., Villanova University; Ph.D., North Carolina State University
- JANE M. WILBURNE, *Assistant Professor of Mathematics and Computer Science* (1998)
B.A., D'Youville College; M.S., State University of New York; Ed.D., Temple University
- KAY R. S. WILLIAMS, *Associate Professor of Geography-Earth Science* (1993)
B.S., Salisbury State University; M.A., Ph.D., University of Georgia
- RICHARD WISCOTT, *Assistant Professor of Gerontology* (2000)
B.A., Youngstown State University; M.A., Ph.D., University of Akron
- CHRISTOPHER J. WOLTEMADE, *Associate Professor of Geography-Earth Science* (1994)
B.A., Ohio Wesleyan University; M.S. and Ph.D., University of Wisconsin
- CHERYL H. ZACCAGNINI, *Assistant Professor of Teacher Education* (1995)
B.A., M.S., and Ed.D., West Virginia University
- JAMES T. ZULLINGER, *Associate Professor of Teacher Education* (1978)
B.A., Virginia Wesleyan; M.Ed., Shippensburg University
- RICHARD ZUMKHAWALA-COOK, *Assistant Professor of English* (2001)
B.A., Colby College; M.A., Ph.D., Miami University

Index

Shippensburg University

A

- Academic Affairs staff listing 142
- Academic
 - calendars 3-4
 - credits 24-26
 - dishonesty 28
 - load 34
 - policies and procedures 19
 - progress and standing 22-24
 - standards 23
- Access to student records 13-14
- Accounting courses 88
- Accreditation 11
- Activities fee 31
- Administration & Finance staff listing 144
- Administration of Justice (M.S.) 65-66
- Administrative officers staff listing 142-144
- Admission categories 17-18
 - international students 18
 - non-degree students 17-18
 - special admissions 18
 - transfer students 18
- Admission policies 16-18
 - Graduate Management Admissions Test 16
 - Graduate Record Examination 16
 - letters of recommendation 16
 - Miller Analogies Test 16
 - National Teacher's Examination 16
 - personal interview 16
 - quality point average 16
- Admission procedures 16-18
 - application fees 16
 - application forms 16
 - examinations 16
 - official transcripts 16
- Admission to Candidacy 27
- Advisement 27
- Aging, post-baccalaureate certificate 78
- Alien students 14
- Americans with Disabilities Act of 1990 13
- Applicable policies 20
- Application fee 16, 31
- Application procedures 33
- Applied gerontology 42, 76-78
- Applied History (M.A.) 42, 53-54
- Appointment Process 33
- Assistance, financial 33-35
- Athletic graduation rates 13

B

- Bad check fee 32
- Benefits, veteran 14
- Biology
 - Biology (M.S.) 45-46
 - courses 89-93

- department 45-46
- Board of Governors 142
- Brief history 11
- Buckley Amendment 13
- Business administration 42, 56-57
 - courses 94
- Business information systems courses 94

C

- Campus
 - directions 12
 - location 11
 - safety 13
 - travel times 12
 - safety 13
 - Security Act of 1990 13
- Career Development Center 37
- Catalog provisions 14
- Certificate in aging 78
- Certification of elementary/middle school 69-70
- Change of domicile 40
- Changing appointment 34
- Chemistry courses 95
- Child care 37
- Civil Rights Act of 1964 13
- Civil Rights Restoration Act 13
- College counseling concentration 62
- College of Arts & Sciences 45-56, 143
- College of Business
 - see John L. Grove College of Business
- College of Education and Human Services 143, 57-86
- College student personnel (developmental) 61
- Commencement 39
- Communication
 - Studies (M.S.) 46-48
 - Communication/Journalism Department 46-48
 - communication courses 95-97
- Community counseling concentration 62
- Completion rates 13
- Compliance Statements 13-14
- Comprehensive requirement 27
- Computer science 42
 - courses 97-99
 - Computer Science (M.S.) 49
 - department 49-50
 - Management Information Systems 42
 - Management Information Systems (M.S.) 50
- Computer Services 38
- Consumerism 14

- Council of Trustees 142
 - Counseling
 - Counseling (M.Ed.) 63–64
 - Counseling (M.S.) 61–63
 - courses 100–103
 - department 57–64
 - Counseling Services 36
 - Course listings 87
 - accounting 88
 - art 89
 - biology 89–93
 - business administration 94
 - business information systems 94–95
 - chemistry 95
 - communication 95–97
 - computer science 97–99
 - counseling 100–103
 - criminal justice 103–104
 - decision sciences 104
 - early childhood education 105
 - Earth science 107
 - economics 107
 - education 107–108
 - education of exceptional children 136–138
 - educational administration 108–112
 - English 112–114
 - finance 114
 - French 115
 - geography 115–119
 - gerontology 119–120
 - history 120–123
 - management 123–124
 - management information systems 124–125
 - marketing 125
 - mathematics 125–128
 - music 128
 - philosophy 128
 - physics 128–129
 - political science 129–131
 - psychology 131–133
 - reading 133–134
 - social work 135
 - sociology 135
 - Spanish 135
 - special education 136–138
 - speech 138
 - teacher education 139–140
 - Courses of Instruction 87–140
 - Criminal Justice
 - department 65–66
 - courses 103–104
 - Cultural diversity 14
 - Cumberland Valley State Normal School 11
- D**
- Decision sciences courses 104
 - Definition, academic dishonesty 28
 - Delinquent accounts 30
 - Department chairs and deans 20
 - Department office locations 144
 - Departments and degree programs 42
 - Determination of Domicile 39
 - Directions to campus 12
 - Directory 141-
 - administration and finance
 - College of Arts and Sciences
 - College of Education and Human Services
 - faculty 145-
 - foundation
 - Information Technologies and Services 143
 - John L. Grove College of Business
 - President's office
 - Disabilities/Disabled 13
 - Disclaimer 14
 - Discrimination 13
 - Dismissal for grades 23
 - Double counting 27
 - Drug-free campus 13
 - Drug-Free Schools and Communities Act 13
 - Dual Level (400) Courses 24, 88
- E**
- Early childhood education courses 105
 - Earning academic credits 24–26
 - Earth science courses 105
 - Economics courses 107
 - Education courses 107–108
 - Educational administration courses 108–112
 - Educational Administration and Foundations Department 66–69
 - Educational records
 - access to 13
 - Educational services Fee 31
 - Elementary and Secondary School Principals 44
 - Elementary School Counseling Concentration 63
 - Eligibility 33
 - Employee Benefits 34
 - English courses 112–114
 - Equal
 - access 13
 - economic opportunity 13
 - educational opportunity 13
 - employment opportunity 13
 - opportunity 13
 - Ethnic intimidation 14
 - Evidence 40
 - Examinations 17–18

Shippensburg University

- department requirements 17
 - Graduate Management Admission Test 17
 - Graduate Record Examination 17
 - Miller Analogies Test 17
- F**
- F-1 student visa 18
 - Faculty listing 145
 - Family Educational Rights 13
 - Fee waiver for senior citizens 39
 - Finance courses 114
 - Financial assistance 33–35
 - Foreign students
 - alien 14
 - nonimmigrant 14
 - French courses 115
 - Full-time status 22
- G**
- Geoenvironmental Studies (M.S.) 52–53
 - Geography/Earth Science
 - department 52–53
 - department Technology Center 52
 - Earth science courses 105
 - Geoenvironmental Studies (M.S.) 52–53
 - Geography courses 115–119
 - Gerontology 75–78
 - Applied Gerontology (M.S.) 76–78
 - courses 119
 - GIS
 - see geography-Earth science department 52
 - GMAT 17
 - Government *See political science*
 - Grading and Point System 21–22
 - appeals 22
 - Graduate
 - assistantships 33–35
 - Council 20
 - Graduate Dean, Office of 11, 36
 - degrees 42
 - Graduate Management Admission Test 17
 - office 36
 - Graduate Record Examination 17
 - student association 39
 - Graduation
 - rates 13
 - fee 31
 - requirements 26
 - GRE 17
 - Guidelines for nondiscriminatory language 14
- H**
- Harassment 14
 - Health Services Fee 31
 - Higher Education Act of 1965 14
- History** 11
- Applied History (M.A.) 53–54
 - courses 120–123
 - History and Philosophy Department 53–54
 - philosophy courses 128
- I**
- I-20 form 18
 - Independent Study 25
 - Individualized Instruction 25
 - Information Systems (M.S.) 50
 - Information Technologies & Services listing 143
 - Instructional Certificates 44
 - International students 18
 - affidavit of support 18
 - Internships 26
- J**
- J-1 visas 18
 - JCJC weekend program 25
 - John L. Grove College of Business 42, 56–57, 143
 - Master of Business Administration 56–57
- L**
- Language
 - nondiscriminatory 14
 - Late Appointments 34
 - Late Registration Fee 31
 - Letter grades 21
 - Letters of recommendation 16
 - Library 38
 - Loans 35
- M**
- Management courses 123–124
 - Management Information Systems 124–125
 - courses 124–125
 - Management Information Systems (M.S.) 50
 - Management Science courses 104
 - Marketing courses 124–125
 - Master of Arts
 - Applied History (M.A.) 53–54
 - Master of Business Administration 56–57
 - courses 94
 - Master of Education 42–45
 - School Administration (M.Ed.) 68
 - Special Education (M.Ed.) 82–84
 - Master of Public Administration 54–55
 - Master of Science
 - applied gerontology 76–78
 - computer science 49
 - management information systems 50
 - mathematics 49

- MAT 16
 Mathematics (M.S.) 49
 Mathematics courses 124–125
 MBA 56–57
 Meal Plans 32
 Mental Health Counseling Concentration 63
 Middle States Association of Colleges and Schools 11
 Miller Analogies Test 16, 17
 Fee 31
 Minimum Academic Standards 23
 Mission 10
 School of Graduate Studies 10
 University 10
 Multicultural Student Center 37
 Music courses 128
- N**
- National Council for the Accreditation of Teachers (NCATE) 11
 Non-degree students 17–18
- Nonimmigrant alien students 14
 Notice and appeal 24
- O**
- Office of Social Equity 13
 Office of the Graduate Dean 11, 36
- P**
- Parking Fee 32
 Payment of Fees 30
 Penalties 28
 Pennsylvania
 College & University Security Information Act 13
 Residency 39
 People with Disabilities 13
 Personal interview 16
 Philosophy courses 128
 Physics courses 128–129
 Plagiarism 28
 Political Science
 courses 129–131
 department 54–55
 Post-baccalaureate certificate in aging 78
 President's Office 142
 Principal's Certification Programs 69–75
 Privacy Act 1974 13
 Procedures for Reclassification 40
 Professional Education Courses 43
 Provisional Admission 17
 Psychology (M.S.) 55–57
 Psychology (psy) 131–133
 Psychology Department 55–57
 courses 131–133
 Public Administration (M.P.A.) 54–55
- Q**
- QPA 16
 Quality point average (QPA) 16, 21
- R**
- Racial tolerance 14
 Racism and Cultural Diversity 14
 Reading
 Reading (M.Ed.) 85–86
 courses 133–134
 Readmission 24
 Reclassification procedures 40
 Refunds 32
 Registrar's Office 36
 Rehabilitation Act of 1973 13
 Repeating graduate courses 26
 Research requirement 27
 Residence directors 35
 Resignation or dismissal 34
 Resolution of charges 28
 Right-To-Know 13
 Room and board 32
- S**
- Safety on campus 13
 Scheduling Classes 24
 School Administration (M.Ed.) 68
 Science courses 135
 Secondary School
 Counseling Concentration 64
 Principals 44
 Security on campus 13
 Semester Fees 31
 Sexual Harassment 13
 Shippensburg University 11
 mission 10
 Shippensburg University Foundation 144
- Social Work & Gerontology Department 75–78
 Applied Gerontology 75–78
 social work courses 135
 sociology courses 135
 Spanish courses 135
 Special
 admission 18
 special education courses 136–138
 Special Education (M.Ed.) 82–84
 Special Education/Education of Exceptional

Shippensburg University

- Children 136–138
 - fees 31
 - grades 21
 - Speech courses 138
 - Standards, academic 23
 - Statements of Compliance 13
 - Access to educational records 13
 - Campus safety 13
 - Consumerism 14
 - Drug-free campus 13
 - Equal opportunity 13
 - Nonimmigrant alien students 14
 - People with disabilities 13
 - Right-to-know 13
 - Sexual harassment 13
 - Veteran's benefits 14
 - Student
 - affairs 143–144
 - matters 29
 - Right to Know 13
 - services 36–39
 - Student Union Fee 31
 - Summary of Costs 30
 - Summer Sessions Room and Board 32
 - Superintendent's Letter of Eligibility 44
 - Program 70
 - Supervisory certification programs 73–75
 - Supervisory I Certificate 44
- T**
- Table of contents 5–8
 - Teacher certification 44
 - Teacher Education
 - courses 139–140
 - department 78–86
 - Education of Exceptional Children courses 136–140
 - reading courses 133–134
 - special education courses 136–138
 - Technology Center
 - Geography-Earth Science Department 52–53
 - Temporary Grades 21–22
 - Thesis 27
 - Time Definition 20
 - Time Limit 27
 - Title 38
 - Veteran's Benefits 14
 - Title IV
 - Higher Education Act of 1965 14
 - Title VI 13
 - Title VII 13
 - Title IX
 - Education Amendments of 1972 13
 - TOEFL 18
 - Transcripts 36
 - fee 31
 - Transfer Credit 26
 - Transfer Students 18
 - Travel Times 12
 - Tuition and Fees 30–32
 - waiver 34
- U**
- Undergraduate courses 24
 - University curricula 41–86
 - University, history of 11
 - University Store 37
- V**
- Veteran's benefits 14, 35
- W**
- Weather conditions 40
 - Withdrawal from a class 24
 - Women's Center 37
 - Work and compensation 34
 - Written consent
 - educational records 13