

**UNIVERSITY OF  
SCRANTON  
1993-94 COLLEGE CATALOG**

- **Catalog conversion notes**



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## TABLE OF CONTENTS

<b>UNIVERSITY OF SCRANTON</b>	<b>3</b>
<b>ACADEMIC CALENDAR</b>	<b>4</b>
<b>GENERAL INFORMATION</b>	<b>6</b>
<b>ADMISSION AND REGISTRATION</b>	<b>8</b>
<b>ACADEMIC REGULATIONS</b>	<b>11</b>
<b>RESOURCES</b>	<b>15</b>
<b>TUITION AND FEES</b>	<b>18</b>
<b>DEPARTMENT OF EDUCATION</b>	<b>19</b>
<b>SECONDARY EDUCATION</b>	<b>20</b>
<b>ELEMENTARY EDUCATION</b>	<b>22</b>
<b>ADMINISTRATION (ELEMENTARY AND SECONDARY)</b>	<b>24</b>
<b>READING</b>	<b>26</b>
<b>SUPERVISION</b>	<b>28</b>
<b>COURSE DESCRIPTIONS</b>	<b>29</b>
<b>DEPARTMENT OF HUMAN RESOURCES</b>	<b>36</b>
<b>HEALTH ADMINISTRATION</b>	<b>38</b>
<b>HUMAN RESOURCES ADMINISTRATION</b>	<b>40</b>
<b>COMMUNITY COUNSELING</b>	<b>42</b>
<b>REHABILITATION COUNSELING</b>	<b>44</b>
<b>SCHOOL COUNSELING</b>	<b>46</b>
<b>COURSE DESCRIPTIONS</b>	<b>48</b>
<b>BUSINESS ADMINISTRATION</b>	<b>57</b>
<b>COURSE DESCRIPTIONS - MBA</b>	<b>60</b>
<b>DEPARTMENT OF ENGLISH</b>	<b>65</b>
<b>COURSE DESCRIPTIONS - ENGLISH</b>	<b>66</b>
<b>DEPARTMENT OF HISTORY</b>	<b>69</b>
<b>COURSE DESCRIPTIONS - HISTORY</b>	<b>70</b>
<b>DEPARTMENT OF CHEMISTRY</b>	<b>72</b>
<b>COURSE DESCRIPTIONS - CHEMISTRY</b>	<b>75</b>
<b>SOFTWARE ENGINEERING</b>	<b>77</b>
<b>COURSE DESCRIPTIONS - SOFTWARE ENGINEERING</b>	<b>79</b>
<b>PHYSICAL THERAPY</b>	<b>81</b>
<b>PERSONNEL</b>	<b>82</b>

**UNIVERSITY OF SCRANTON**  
**1993-94**

**Graduate School Catalog**

*Where Potential Becomes Achievement in the Jesuit Tradition*

**The Graduate School**  
**University of Scranton**

800 Linden Street  
Scranton, Pennsylvania 18510-4632  
Phone 717-941-7600  
or 1-800-FON-GRAD

**STATEMENT OF OWNERSHIP**

This graduate catalog is owned and controlled by the University of Scranton, Scranton, Pennsylvania 18510-4632. Officers of the University are: The Rev. J.A. Panuska, S.J., president; Marilyn Coar, secretary, David C. Christiansen, treasurer.

**CORPORATE TITLE**  
**“University of Scranton”**  
**Scranton, Pennsylvania**

The Estate, located in the heart of the campus, is home for the Graduate School Office.

**To the Prospective Graduate Student:**

What we are trying to do here is bring together highly qualified, motivated students and highly qualified, motivated faculty members in an environment which encourages, indeed concentrates on, the development of human capacities. Under those circumstances, some really wonderful things happen: Career transformations and advancement, emergence of new knowledge, re-oriented perspectives on ourselves and the world, and (quite incidentally) the development of friendships and feelings of deep, personal satisfaction. It's working. It's exciting. We intend to keep doing it. We invite others – both prospective students and prospective faculty – to join us in the enterprise.

Thomas P. Hogan, Ph.D.  
Dean of the Graduate School  
& Director of Research

## ACADEMIC CALENDAR

### FALL '93 TERM SCHEDULE

Orientation for new students	Sun., Aug. 29
Walk-in registration thru	Wed., Sept. 8
<b>CLASSES START</b>	Mon., Aug. 30
Late fee in effect after	Fri., Sept. 3
Labor Day (No class)	Mon., Sept. 6
Last Day to add a course	Wed., Sept. 8
Last day to register for Comps	Fri., Sept. 24
Last day to drop a course	Wed., Sept. 29
Term break (No classes)	Oct. 9-17
Comprehensive exams administered	Sat., Oct. 30
Last day to withdraw from course	Mon., Nov. 15
Last day for theses, scholarly papers	Fri., Nov. 19
Thanksgiving Holiday	Nov. 25-28
<b>FINAL EXAMS</b>	Dec. 14-20
Fall degree conferral date	Dec. 31

### INTERSESSION '94 TERM SCHEDULE

Advance registration	Oct. 25 - Nov. 5
Walk-in registration thru	Tues., Jan 4
<b>CLASSES START</b>	Mon., Jan. 3
Last day to add a course	Tues., Jan 4
Last day to drop a course	Thurs., Jan. 6
Last day to withdraw from course	Fri., Jan. 21
<b>FINAL EXAMS</b>	Jan. 26-27
Interession degree conferral date	Jan. 31

### SPRING '94 TERM SCHEDULE

Advance registration	Oct. 25 - Nov. 5
Orientation for new students	Sun., Jan. 30
Walk-in registration thru	Wed., Feb. 9
<b>CLASSES START</b>	Mon., Jan. 31
Late fee in effect after	Fri., Feb. 4
Last day to add a course	Wed., Feb. 9
Last day to register for Comps	Fri., Feb. 25
Last day to drop a course	Wed., Mar. 2
Comprehensive exams administered	Sat., Apr. 9
Easter Holiday/Term break (No classes)	Mar. 26 - Apr. 4
Last day to withdraw from course	Thurs., Apr. 14
Last day for theses, scholarly papers	Fri., Apr. 22
<b>FINAL EXAMS</b>	May 16-21
<b>COMMENCEMENT</b>	Sat., May 28

### SUMMER SESSIONS

#### COMMON DATES FOR SUMMER '94 TERMS

Advance registration	Apr. 11 - 22
Walk-in registration thru	Second day of term
Last day to register for Comps	Fri., June 17
Last day for theses, scholarly papers	Fri., July 8
Comprehensive exams administered	Sat., July 15
Summer degree conferral date	Aug. 31

### SUMMER I '94 TERM SCHEDULE

<b>CLASSES START</b>	Mon., June 6
Last day to add a course	Tues., June 7

**UNIVERSITY OF SCRANTON**

Last day to drop a course	Thurs., June 9
Last day to withdraw from course	Fri., June 24
FINAL EXAMS	June 29-30

**SUMMER I '94 TERM SCHEDULE**

CLASSES START	Mon., June 20
Last day to add a course	Tues., June 21
Last day to drop a course	Thurs., June 23
Independence Day Holiday	Mon., July 4
Last day to withdraw from course	Wed., July 20
FINAL EXAMS	July 27-28

**SUMMER II '94 TERM SCHEDULE**

CLASSES START	Mon., July 11
Last day to add a course	Tues., July 12
Last day to drop a course	Thurs., July 14
Last day to withdraw from course	Fri., July 29
FINAL EXAMS	Aug. 3-4

**Deadline to Apply for Degree Conferral**

Students planning to graduate at the end of a particular term must submit the "Application for Degree" form during the Advance Registration period for that term.

## GENERAL INFORMATION

The University of Scranton, the oldest Catholic institution of higher education in Northeastern Pennsylvania, was founded in 1888 as Saint Thomas College. It is chartered under the laws of the Commonwealth of Pennsylvania and empowered to confer Bachelor's and Master's degrees in the Arts, Sciences, Business Administration, Health Administration and Education. In 1938 Saint Thomas College became the University of Scranton, while four years later the Society of Jesus acquired title from the Catholic Diocese of Scranton and administrative control from the Brothers of the Christian Schools. Thus Scranton became the twenty-fourth of the twenty-eight Jesuit colleges and universities in the United States.

### Programs

Graduate study was initiated at the University of Scranton in 1950, the first master's degrees being awarded in 1952. At present, the following programs are offered by the Graduate School:

Biochemistry	MS, MA
Business Administration	MBA
Chemistry	MS, MA
Clinical Chemistry	MS, MA
Community Counseling	ms
Elementary Education	ms
Elementary School Administration	ms
English	MA
Health Administration	MHA
History	MA
Human Resources Administration	ms
Physical Therapy	MPT
Reading	ms
Rehabilitation Counseling	ms
School Counseling	ms
Secondary Education	MS, MA
Secondary School Administration	MS
Software Engineering	ms

The University has certification programs approved by the Pennsylvania Department of Education in the areas listed below. Some of these may be pursued in connection with an undergraduate degree, some in connection with a graduate degree, and some may be pursued independent of any degree program.

### Certification Programs

Biology	Latin
Chemistry	Mathematics
Communication	Physics
Elementary Education	Reading Specialist
Elementary Principal	Secondary School Principal
English	Secondary School Counseling
French	Social Studies
General Science	Spanish
German	

### Supervisor certificates in:

Biology	Mathematics
Chemistry	Physics
Communication	Reading
English	School Guidance Services
Foreign Languages	Social Studies

### Objectives

As one of the family of worldwide Jesuit Colleges and Universities, the University of Scranton shares with them a common educational heritage and tradition. Its principal objective, therefore, is to lead the student to understand and to inspire him/her to fulfill that complex of dignities and

responsibilities which man or woman, as a person and as a member of human society, is under God.

The specific mission of the Graduate School is to provide advanced, post-baccalaureate education through high quality programs which are coordinated with the University's other programs. The Graduate School subscribes to the Policy Statement on The Master's Degree of the Council of Graduate Schools regarding the nature, requirements and evaluation of master's level work.

**Organization and Location**

The administration and supervision of the Graduate School is the responsibility of the Dean of the Graduate School. The Dean is assisted by a Graduate Dean's Conference, an advisory committee, of which the Dean is chair. All questions concerning admission, candidacy and comprehensive examinations or modifications of course programs, must be submitted in writing to the Dean of the Graduate School. Decisions of the Dean of the Graduate School are final. The office of the Dean of the Graduate School is on the 2nd Floor of The Estate, located in the center of the campus (see map inside back cover). The office is open daily from 8:30 a.m. to 4:30 p.m. Monday through Friday. During Fall and Spring terms it is also open Monday through Thursday evenings. For students who wish to consult the Dean the courtesy of calling for an appointment is recommended.

**Graduate Dean's Conference: 1992-1993**

Dr. Thomas P. Hogan	Chair, Dean of the Graduate School
Dr. Christopher Baumann	Associate Professor of Chemistry
Dr. John A. Beidler	Professor of Computing Sciences
Mrs. Regina B. Bennett	Assistant to the Dean
Dr. Raymond W. Champagne, Jr	Professor of History
Prof. Francis H. Curtis	Associate Professor of Education and

**Chair, Department of Education**

Dr. Michael Friedman	Assistant Professor of English
Mr. James L. Goonan	Director of Graduate Admissions
Dr. David W. Hall	Associate Professor of Human Resources
Dr. Raymond L. Kimble	Associate Professor of Education
Dr. John K. Stout	Professor of Human Resources and

**Chair, Department of Human Resources**

Dr. Joseph R. Zandarski	Professor of Business Administration
Ms. Donna M. Colangelo	Student
Mr. Shawn W. Fitzgerald	Student
Ms. Renee J. Garvey	Student

**Policy on Students with Disabilities**

The University of Scranton complies with all applicable laws and regulations with respect to the accommodation of handicaps and disabilities as these terms are defined in the law. The University will provide reasonable accommodations so students can fully participate in curricular and extracurricular activities. Students who need assistance should contact the Affirmative Action Office (717) 941-7580 on a timely basis.

## ADMISSION AND REGISTRATION

### Application Process

Students must be formally admitted to the Graduate School in order to register for any graduate courses. The Application for Admission form may be obtained from the Graduate Office. Completed applications, together with official transcripts of undergraduate and graduate work taken elsewhere, letters of recommendation, any required test scores, and other supporting documents, should be in the Graduate Office at least one month before the term in which the student wishes to begin graduate study. International students should have all materials in the Graduate Office at least three months in advance. Processing of applications will not commence until all required documentation has been received by the Graduate School.

### Admission Standards

The admission standards and policies of the University of Scranton are free of any limitation, specification or discrimination on the grounds of race, religion, color, national or ethnic origin, sex, age, or handicap, except as provided by law.

An applicant for admission to the Graduate School must possess a baccalaureate degree from an American college or university accredited by one of the recognized regional accrediting associations, or the equivalent from an international college or university. The ordinary standard for admission to a graduate program is an undergraduate QPI of at least 2.75 (on a 4.0 scale). Students falling below this level may submit other evidence of their ability to successfully complete a graduate program, such as grades in other post-baccalaureate courses, scores from examinations, or a record of progressively higher work responsibilities. In addition, the applicant's previous course work must show the successful completion of all prerequisites for graduate work in the program to which application has been made. Individual departments/programs may establish higher QPI requirements and/or introduce additional criteria for making the admissions decision. Consult the sections of this catalog devoted to the specific programs for such other criteria. Final action on an application for admission to the Graduate School is taken by the Graduate Dean.

Ordinarily, the applicant must submit the following to be considered for admission to the Graduate School:

- The completed graduate application, along with the non-refundable application fee
- Official transcripts of all previous undergraduate and graduate work completed at accredited institutions ("student" copies of transcripts are not acceptable)
- Three references from persons capable of evaluating the student's educational background and work or personal character
- Any additional material required by a particular department or program, e.g., test scores, personal interview, etc.
- International students must submit scores from TOEFL and an affidavit of financial support

### Applicants may be admitted to the Graduate School in one of the following categories:

**Regular Admission.** Applicants are admitted under this category when they have satisfied the admissions criteria of both the Graduate School and the department or program in which they are to enroll for graduate studies.

**Probationary Admission.** Applicants who do not meet all of the criteria for Regular Admission, but show reasonable promise for success in graduate studies, may be accepted on a probationary basis. Students accepted on probation must consult their mentors to determine specific courses to be taken. The student may not register for more than six credits in a semester while on probationary acceptance. Students who obtain a cumulative QPI of at least 3.0 after completing nine graduate credits are removed from probation and continue as regularly accepted students. Students who do not obtain a cumulative QPI of at least 3.0 after completing nine credits of coursework are subject to dismissal.



**Provisional Admission.** Applicants are admitted to the Graduate School under this category when their credentials are either incomplete at the time of application or when there is evidence of a deficiency in their academic preparation for studies in their chosen graduate program. Incomplete credentials may result because the application was submitted prior to the conferring of the baccalaureate degree, essential undergraduate grades are not yet available, or advanced test scores have not yet been reported, etc. An academic deficiency in preparatory studies would be determined by the requirements of the separate department or program in which the applicant seeks admission.

**Special Admission.** Applicants who are admitted to the Graduate School under this category are non-degree students. They are admitted to pursue studies for certification, transfer of credit, self-improvement, master's equivalency, or auditing. The continuance of graduate studies under this category is governed by the grade policy of the Graduate School. A qualified undergraduate student who has been admitted to an accelerated course of study that permits him or her to earn graduate credit is accepted into the Graduate School as a special student under this category. Acceptance as a degree student is contingent upon the reception of the baccalaureate degree in addition to the successful fulfillment of all other requirements for admission.

### **Second Degrees or Programs**

Students who wish to take additional courses or pursue a new program within the same degree area as their first program and do so within two years of completing their first program need only advise the Graduate School Office and will be permitted to register for class.

Students who wish to start a new program within the same degree area as their first program and do so between 2-5 years of completing their first program must submit a new application with fee. Supporting materials will be pulled from the Graduate Office files.

Students who wish to start a new program in a different degree area from that of their first program and do so within five years of completing their first program, must submit a new application with fee and letters of reference. All other supporting materials will be pulled from the Graduate Office files.

Students wishing to begin any new programs after five years must submit a new application, fee, and all supporting materials.

### **Retention of Application Files**

Applications for admission will be kept for two years from the original date of receipt. If the application has not been completed during this period, it will be destroyed.

Applications for admission which are completed and have been acted upon will be kept for two years from the date of acceptance. If a student does not register for class during this period, the application will be destroyed.

Prior to an application file being destroyed, the applicant will be notified by mail. If the applicant subsequently decides to enter a graduate program at the University, he/she will be required to reassemble the entire application file.

All documents submitted in connection with an application become the property of the University.

### **International Students**

Applicants who are citizens of non-English speaking countries are required to obtain a score of at least 500 on the Test of English as a Foreign Language (TOEFL) as one criterion for admission to the Graduate School. Certain degree programs, as described in the sections on those programs in this catalog, require TOEFL scores higher than 500. International students are also required to submit a Certification of Finances form. All application materials for international students should be available for review in the Graduate Office a minimum of three months before the term in which the student wishes to begin study. Applications for admission for international students which are completed and acted upon will also be kept for two years from date of acceptance. International students must, however, update their Certification of Finances form after one year.

## UNIVERSITY OF SCRANTON

Ordinarily, international students whose native language is not English are limited to six credits of work in their initial semester at the University and are expected to participate in an English tutorial; there is no fee for this tutorial.

### **Registration For Courses**

Registration for each semester will take place according to the schedules listed in the special bulletins which are issued prior to each semester. Mail registration is permitted after the initial acceptance and registration. Registration will be with the approval of a student's mentor or chair of the department. Students who wish to cancel their registration must give written notice to the Graduate School Office. Please see details under Dropping and Withdrawing from a Course.

In order to facilitate registration for both continuing and new students, a period of ADVANCE REGISTRATION is held prior to each term. This extends over a period of about two weeks. All continuing students are expected to register for the subsequent term during the Advance Registration period.

Undergraduate students may register for certain graduate courses. They must, however, have the approval of the appropriate department chair and the appropriate deans.

Orientations for New Graduate Students Orientations for new graduate students, covering Graduate School policies and procedures, library and computer facilities, etc., are scheduled as listed below. Students beginning in Summer '93 or Fall '93 are expected to attend the Fall Orientation; students beginning in Intersession '94 or Spring '94 are expected to attend the Spring Orientation.

FALL ORIENTATION:            Sunday, August 29, 1993, 12-5 PM  
Lecture Hall 102, Hyland Hall

SPRING ORIENTATION:        Sunday, January 30, 1994, 12-5 PM  
Lecture Hall 102, Hyland Hall

## ACADEMIC REGULATIONS

### Mentors

From the inception of graduate study, students will be assigned a mentor to help them formulate a program of studies and supervise their work. It is suggested that students work closely with their mentors and that the courtesy of arranging appointments in advance with faculty members so designated be observed by all students.

### Grading

The following grades are used:

- A: excellent (4 quality points/credit);
- B+: superior (3.5 quality points);
- B: good (3 quality points);
- C: fair but passing (2 quality points);
- F: failure (0 quality points).

“S” indicates satisfactory or pass.

“U” indicates unsatisfactory or fail.

S/U grading is authorized only for certain courses.

“IP” indicates a student is registered for a thesis or an approved research project which has not been completed at the end of a given semester but for which satisfactory progress is being made. This grade is temporary and once the work has been completed it must be converted to one of the permanent grade symbols.

“W” indicates that a student has withdrawn from a course.

“I” indicates postponement of the completion of a course. It is given at the discretion of the instructor to a student who is doing satisfactory work but who has not completed all of the course requirements at the end of a given semester. Given such an extension, the student must complete all the required work, unless otherwise agreed, before the midpoint of the next regular semester. Failure to complete the necessary work within the stipulated time results in automatic conversion of the “Incomplete” to a permanent grade of F.

“Audit” indicates that a student has taken a course for which permission has been granted without a grade being awarded. Students must secure such authorization prior to the start of a course. Entry of the audit grade on a transcript assumes satisfactory attendance at class meetings. The student should consult with the instructor as to what constitutes satisfactory attendance.

“NG” is a temporary grade citation issued by the Dean on grade reports when a faculty member fails to meet the announced deadline for the submission of student final grade reports. Such temporary grade citations will be changed, in due course, to permanent grade symbols when issued by the professor(s) charged with that responsibility.

Special permission is not needed to repeat failed courses; however, prior approval of the student's Dean is needed to repeat non-failed courses. The recording of grades for repeated courses shall be governed by the following conditions: 1) Credit for a course will be granted only once. 2) Credit for the course will be lost if the course is repeated and failed. 3) The most recent credit and grade will count toward the QPI with this exception: a “W” grade cannot replace another grade. 4) Each attempt to complete a course will be reported on the student's transcript. 5) Ordinarily, a student may repeat a course only in the same manner in which it was originally taken. 6) A student repeating a course must so indicate on his/her registration form.

Regular attendance at class is considered a requisite for successful completion of a course.

### Standards of Progress

All students must have a cumulative QPI of at least 3.0 to graduate with a master's degree. In addition, all students must maintain a cumulative QPI of at least 3.0 to remain in good academic standing. If a student's cumulative QPI drops below 3.0, he/she is placed on academic probation.

If satisfactory progress is not made toward removing probationary status, the student is subject to dismissal by the Dean in consultation with the student's program director. While on academic probation, the student's credit load may be restricted. If the student's cumulative QPI has increased to at least 3.0, the student is removed from academic probation.

### **Time Limit**

All graduate work for a degree, including the thesis, must be completed within six consecutive years. Time spent in the armed forces is not included in the six year period. Extension of this time restriction may be granted for valid reasons at the discretion of the Dean.

### **Application for Degree**

In order to qualify for award of the master's degree, a student must complete the Application for Degree form. This should be done during the Advance Registration period for the term in which the student expects to finish all requirements. Copies of the form are available in the Graduate Office.

The University provides the opportunity for students who have completed degree requirements to graduate at the conclusion of each academic term: Summer, Fall, Intersession, Spring. Official dates of graduation are noted in the academic calendar. Commencement exercises are held once in the academic year, at the conclusion of the Spring term. Students who graduated in the previous Summer, Fall or Intersession terms, as well as in the current Spring term, participate in these commencement exercises.

### **Transfer Of Credits**

Transfer of credits to graduate programs at the University of Scranton is governed by the following policies:

1. That such credits were acquired in residence at the other institution. Extension credits are, ordinarily, not acceptable.
2. That only six (6) credits maximum be transferred.
3. That courses to be transferred parallel courses here and mesh with the student's program at the University of Scranton.
4. That these credits were taken within six (6) years of the student's admission.
5. That a grade of B or better was acquired in these courses and that an official transcript is submitted for work at other institutions, including the course description of the credits in question.

Students matriculated at the University of Scranton may follow courses at other approved graduate schools, and transfer credits only with the previous permission of their mentor and the Dean of the Graduate School.

### **Comprehensive Examinations**

Students in Master of Arts and Master of Science programs must pass a comprehensive examination in their respective fields of study. The examination may be oral, written, or both. Comprehensive examinations are given on dates published in the academic calendar in this catalog (see pages 6-7). Students must apply to take the comprehensive exam by the deadlines given in the academic calendar, using the Application for Comprehensive Examination form available in the Graduate Office. Eligibility for the examination is determined by the Director of the student's program. Students should consult their mentors regarding the nature of the examination in their field. Students failing the comprehensive examination twice will not be considered for the master's degree.

### **Thesis**

Candidates for the Master of Arts degree in programs in the Departments of Chemistry and Education as well as students in Software Engineering are required to complete a thesis. Students in English and History may opt to do a thesis. A thesis is completed under the active supervision of the candidate's mentor and approved by one additional reader. In case of doubt, a third reader

may be required. In the preparation of the thesis, style regulations prescribed by the Graduate School will be observed. Three copies of the accepted thesis must be submitted to the Graduate School Office on or before the date indicated in the University calendar.

### **Dropping, Withdrawing From or Adding A Course**

Students are alerted that they may drop a course during the time in which they are entitled to a refund of any amount. (See "Refund Schedule", p. 24). To drop a course students must complete a "Schedule Change" form, which is available in the Graduate Office. This form must be completed and returned to the Graduate Office within the time in which students are entitled to a refund. The drop will be treated as if the student never registered for the course.

After the time in which a student is entitled to a refund has elapsed, students will be permitted to withdraw from a course.

To withdraw from a course students must complete a "Schedule Change" form and return it to the Graduate Office. The student's transcript will contain the course number and title, along with a "W" for "Withdraw".

To add a course students must complete a "Schedule Change" form. This form must be completed and returned to the Graduate Office by the time of the "add deadline" (see "Calendar", pp. 6-7).

See the academic calendar for deadlines for withdrawing.

Note: There is a special fee for any course-related schedule change submitted after the first week of each term.

### **Policy Changes, Academic Integrity and Student Conduct**

The University reserves the right to change any of the rules and regulations in this catalog. All such changes are effective at such times as the proper authorities determine and may apply not only to prospective students but also to those who are already matriculated in the University. However, curricular changes shall not become effective until published in the catalog unless specifically approved for an earlier implementation date by the appropriate body. If a change is approved for implementation prior to its publication in a catalog, the appropriate school, department, or program shall inform students affected by the change. Application of policies, rules, and requirements, including changes thereto, may be appealed to the dean of the student's college.

The University reserves the right to take appropriate disciplinary action in the case of any student who conducts himself or herself contrary to the standards of the University. These standards (particularly in the area of Academic Integrity) are given clear expression in the faculty and student handbooks of the University. The University also reserves the right to modify admissions requirements, the right to change tuition and fee charges, and the right to change the semester schedule of courses.

### **Special Note For Students**

Students, please note carefully that it is your responsibility to be familiar with the academic regulations, fee structures, and other policies contained in this catalog.

### **List of Commonly Used Forms**

This is a handy reference list of forms commonly used by graduate students. Certain less commonly used forms are not included here. The commonly used forms are readily available in the Graduate Office as well as in most department offices and from mentors.

**APPLICATION FOR ADMISSION:** Use this form to apply for admission to the Graduate School.

**GRADUATE REGISTRATION:** Use this form to register for courses, either through Advance Registration or Walk-in Registration.

**SCHEDULE CHANGE:** Use this form to change a Registration form already submitted, e.g., to withdraw from, drop or add a course.

READER: Use this form, along with the Registration form, to register for a Reader course.

GRADUATE CREDIT TRANSFER RECOMMENDATION: Use this form to request review of graduate credits taken elsewhere for transfer to your program here.

APPLICATION FOR COMPREHENSIVE EXAMINATION: Use this form when you are ready to take comprehensives.\*

APPLICATION FOR DEGREE: Submit this form during the Advance Registration period for the term when you expect to complete all degree requirements. \*

REQUEST FOR TRANSCRIPT: Use this form to request an official copy of your graduate transcript.

PROGRAM CHANGE: Use this form if you have already been admitted to one program but wish to be admitted to another; this includes changes between MA and MS programs within the same department.

EMPLOYER REIMBURSEMENT FORM: Use this form if you are under an employer reimbursement plan for tuition benefits. Completed form must be returned to Treasurer's Office each term with your registration agreement.

**APPLICATION FOR GRADUATE ASSISTANTSHIP:**

Complete and submit this form to the Graduate Office by the March 1 deadline if you wish to be considered for a graduate assistantship in any department.

\* See Calendar (pp. 6-7) for deadlines.

## RESOURCES

### The Harry and Jeanette Weinberg Memorial Library

Library holdings include approximately 291,000 volumes; 1,946 periodical subscriptions; 225,000 microforms; 2,600 non-print items, including videocassettes, records, films and filmstrips. Users may check holdings by using terminals in the Library or by dialing in via a modem (941-4077) or via Telnet (ALEC.LIBRARY.UOFS.EDU). The Library's Online Public Catalog (OPC) displays holdings and availability of materials - in the Library; in circulation; date due; overdue; on reserve. The catalogs of other libraries are available for searching via the Internet through the Weinberg Memorial Library's Gateway.

Library hours are posted on campus, on the OPC, on the Royal Link, and on a recording (941-7525). It is open 95.5 hours per week, with extended hours during exam periods.

The University of Scranton belongs to a consortium of area colleges, NEPBC, that includes Marywood, King's, Wilkes, College Misericordia, Keystone Jr. College and Luzerne County Community College. Students may borrow books directly from these libraries and from the Lackawanna County Library System. A list of other libraries' periodical holdings is available at the Reference desk. Interlibrary loan is available for materials not owned by the Library. The fee is \$1.50 for photocopied articles; there is no charge for interlibrary loan books.

- Computer Database Services. Newsbank, ABI/Inform, Periodical Abstracts, Newspaper Abstracts, Books-in-Print Plus Reviews, American History and Life, Philosopher's Index, Compact Disclosure, Compustat, Standard Federal Tax Reporter, F&S Predicasts, F&S Predicasts Inter-national, Eric, PsychLIT, Sociofile, HealthPLAN, MLA, CINAHL, Agricultural and Biological Index, Religion One Index, Core Medline, and Census databases are available in CD-ROM format. Users search CD-ROMs on their own without incurring fees. UnCover, a current awareness contents of periodicals database is available for searching free of charge. Articles, which vary in price according to copyright fees, may be ordered for document delivery via fax. Bibliographic, directory and statistical information can be accessed online via DIALOG, Dow Jones, OCLC, and Wilsonline. Searches are conducted by appointment with librarians. The average online search takes 20 minutes and costs from \$10 - \$25 depending on the online database accessed, number of citations printed, and length of connect time.
- Photocopying. Four photocopiers are available. The Library uses a Vendacard system. Copies are 10 cents a page. The card is \$1.00. Micro copiers use dimes. A dollar changer is available.
- Microforms. In addition to back issues of some periodicals, the Library has telephone directories, college catalogs, ERIC documents, FBIS international coverage, historical documents, and Newsbank information in microformat.
- Bibliographic Instruction. The Library conducts an extensive bibliographic instruction program to enable students to use material and staff resources as fully as possible.
- Assistance is available to Library users at the Circulation (941-7524) and Reference (941-4000) desks.

### Career Services

Career Services staff advise students on career development issues, assist students and graduates in job search, and help students plan for further academic work following graduation. During the academic year, the office presents workshops on resume/interview preparation and career planning. A career library containing occupational information and some graduate school catalogs is also available. Office hours are 8:30 a.m. to 7:30 p.m. Monday through Thursday, 8:30 a.m. to 4:30 p.m. on Friday. Contact Career Services in the Gallery, 2R (Tel. 941-7640) to arrange appointments.

### Counseling Center

The Counseling Center staff provide personal counseling and crisis consultation for University students. Services are confidential and free of charge. The Center is open Monday through

Friday, 8:30 a.m. to 4:30 p.m. Later evening sessions are available by appointment only. Stop by the Gallery building, floor 2F or call 941-7620 to make an appointment.

### **Drug and Alcohol Information Center & Educators**

The D.I.C.E. Office serves all students of the University by providing information and educational programs regarding prevention of drug and alcohol abuse. The office is located in the Wellness Center, 1130 Mulberry Street (Tel. 941-4253). Office hours are Monday through Friday, 8:30 a.m. to 4:30 p.m.

### **Assistantships, Financial Aid**

Approximately 55 graduate assistantships are available. For students in the rehabilitation counseling program, traineeships are also available. Information and application forms for the assistantships may be obtained from the Graduate Office. The deadline for applying for assistantships is March 1. Information and application forms for the rehabilitation counseling traineeships are available from the Director of the Rehabilitation Counseling Program.

Resident assistantships are offered to single male and female graduate students, whereby room and board in the University's dormitories are provided. Applications may be obtained from the Student Affairs Office. A limited number of other campus jobs are also available. Inquiries regarding these should be directed to the Financial Aid Office (Tel. 941-7700).

### **Tuition Policy for Senior Citizens**

Persons 60 years of age and older may audit courses at the University at no tuition charge, on a "space available" basis. Such persons may take courses for credit at 50% tuition. These reductions are applicable only after the person has applied for and receives any form of financial assistance normally available, e.g., state and federal assistance and employer reimbursement. Fees and other costs of courses (e.g., textbooks) are assessed at the normal rate in all cases.

### **Computer Facilities**

The University provides an excellent array of computing facilities, both hardware and software. A simple listing of the facilities is provided below. Details regarding equipment, software, support services, and hours are published by University Computing Services (UCS) at the beginning of each academic year, with periodic updates throughout the year. Students should consult current UCS publications for up-to-date details.

VAX 6320 Minicomputer - Alumni Memorial Hall  
Microcomputer Lab - Alumni Memorial Hall  
VAX Terminal Lab - Alumni Memorial Hall  
Learning Resources Center Lab - Alumni Memorial Hall  
Psychology PC Lab - Alumni Memorial Hall, 2nd floor  
PC Lab - Gavigan Hall  
Writing Center IBM PC Lab - Instructional Arts Facility  
Journalism Macintosh Lab - Jefferson Hall, Room J106  
Loyola Hall PC Lab - Loyola Hall, Room L115  
Helene Fuld Nursing Lab - O'Hara Hall, Room O106  
Education Apple Lab - O'Hara Hall, Room O621  
SOM IBM PC Lab - O'Hara Hall, Room O508  
SOM IBM PC Lab - O'Hara Hall, Room O506  
VAX Terminal Lab - O'Hara Hall, Room O519  
IBM PC Lab - Redington Hall  
IBM PC Lab - St. Thomas Hall  
CAD/CAM Lab - St. Thomas Hall, Room T170  
Microcomputer Lab - Weinberg Memorial Library  
IBM PS/2 Lab - St. Thomas Hall, Room T375  
Graphics Lab - St. Thomas Hall, Room T385  
ADA Lab - St. Thomas Hall, Room T475  
Workstation Lab - St. Thomas Hall, Room T486

Further information and assistance may be obtained from the UCS Help Desk, Alumni Memorial Hall, 941-4173. Up-to-date information is also available online through the Royal Link, a campus-



wide information system. Access to the Royal Link may be obtained via public access terminals located around campus.

### **Learning Resources Center**

The University's Learning Resources Center is located in Alumni Memorial Hall. Services provided for the graduate student include workshops given by faculty, tutoring for undergraduate courses, assistance with study skills, as well as computer assisted learning, including an ESL software package for international students. The Center is open from 8:30 a.m. to 9:00 p.m. Monday through Thursday, and 8:30 a.m. to 4:30 p.m. on Fridays during the Fall and Spring terms. Summer hours are 8:30 a.m. to 4:30 p.m. Monday through Friday. Contact the Center for special intersession hours and for further information (941-4038).

### **Research Centers**

The University has a number of research centers which may be of interest to graduate students in selected areas of study. Among these are the following:

**Center for Economic Education.** The University's Center for Economic Education is sponsored by the Pennsylvania Council on Economic Education and is affiliated with the National Joint Council on Economic Education. The Center helps local schools to establish programs in economic education and maintains an extensive collection of materials on this subject. Director: Dr. Edward M. Scahill.

**CAD/CAM Resource Center.** The CAD/CAM Resource Center assists local businesses with the training and utilization of computer-aided design and computer-aided manufacturing. For the past several years the Center has had an active program supported by the Ben Franklin Partnership of the Commonwealth of Pennsylvania. Director: Dr. Joseph Connolly.

**Joseph M. McDade Center for Technology and Applied Research.** The Center has as its primary goal supporting the economic redevelopment of Northeastern Pennsylvania. The Center's programs focus on promoting career technology preparedness, systematic manpower training and state-of-the-art research and development in applied computing and engineering. Director: Mr. David L. Tressler.

**Small Business Development Center.** The SBDC provides assistance to small businesses in a nine-county area of Northeastern Pennsylvania through expert consultation and training in the areas of finance, marketing, and management techniques. Director: Ms. Elaine Tweedy.

### **Physical Education/Recreation Complex**

Graduate students may use the Long Center and Byron Recreation Complex on a per semester fee basis. Facilities are provided for indoor tennis and racquetball, basketball, swimming, weight room, sauna, etc.

### **Student Health Services**

As of September 1993, Student Health Services will occupy a new facility in the Wellness Center at 1130 Mulberry Street. Graduate students become eligible to use Student Health Services by payment of the health fee of \$65.00 per semester. Services offered include health and wellness information, nursing assessment, treatment of routine illnesses and injuries, medical services provided by physicians and a certified nurse practitioner by appointment, as well as referral to community health care providers for services beyond the scope of a student health facility. Further information may be obtained by contacting Student Health Services (Tel. 941-7667).

**TUITION AND FEES**

Tuition (per semester hour of credit)	\$335.00
MBA Tuition (per semester hour of credit)	\$350.00
Software Engineering (per semester hour of credit)	\$375.00

**Fees -**

Application Fee	35.00
Binding of Thesis	40.00
Graduation Fee	75.00
Reader Fee (per credit fee in addition to tuition)	20.00

**Registration Fee (per semester):**

during Advance Registration	25.00
after Advance Registration	60.00
Late Registration	20.00
Schedule change fee (after 1st week of term)	15.00
Reinstatement Fee	100.00

**Transcripts**

Unofficial	1.00
Official: current students	2.00
Official: others	4.00
Photo I.D. (one-time fee)	15.00

**Fees - Optional University Services**

Parking Fee (per year)	35.00
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**Recreation Center**

Fall or Spring Term	60.00
Summer or Intersession term	10.00
Student Health Services (per semester)	65.00

Certain courses also carry a special fee. Unless explicitly stated otherwise, tuition and fees are for one semester and are payable at registration. The graduation fee is payable, whether or not a student attends commencement exercises.

Students will not be permitted to receive any degree, certificate, or transcript of record until their financial accounts with the University have been satisfactorily settled.

The University will adhere rigidly to the following "Schedule of Refunds." Fees are not refundable.

**Schedule of Refunds****Fall/Spring Semesters**

Until the end of the tenth calendar day of the term	100%
Eleventh through seventeenth calendar day of the term	75%
Eighteenth through twenty-fourth calendar day of the term	50%
Twenty-fifth through thirty-first calendar day of the month	25%
Beyond thirty-one calendar days in th term	No Refund

**Summer and Intersession**

Until the end of the second calendar day of the term	100%
During third and fourth calendar days of the term	50%
Beyond four calendar days in the term	No Refund

## DEPARTMENT OF EDUCATION

**Prof. Francis H. Curtis, Chair**

### **Goals of the Department of Education**

The Department of Education offers a variety of programs for individuals currently in the field of education as well as for those wishing to enter the field. The programs include initial certification for a variety of positions and additional certifications; master's degrees, some of which are directly connected with certifications and some of which may be pursued without any certifications; and individual courses which may be taken for updating skills and knowledge or pursuing new fields. The various programs and options are described in the following sections.

### **Departmental Requirements**

Admission requirements for all programs in the Department of Education are the same as those for the Graduate School as a whole, as described on pages 11-14 of this catalog. All candidates for a master's degree in education are required to successfully complete a comprehensive examination in the field of their degree. Additional requirements for each degree or certification are described under the respective programs in the following sections.

### **Act 34 Clearance**

As a matter of University policy, all education students are required to submit a completed Act 34 clearance to the Education Department prior to being placed in any field experience that would put them in direct contact with children. This clearance is collected by the University on behalf of the school entity where the field experience will occur. The completed Act 34 form will be delivered to the school entity by the Education Department after the form is obtained by the student. The University will not maintain a student's Act 34 clearance form or background check after delivery of the form to the school entity where the field experience will occur.

### **Certification**

All certification candidates must exhibit pre-certification competency of PL 94-142 before being recommended for the certification they seek. Education students seeking certification are evaluated annually by the Education Department faculty. This evaluation is based on academic and personal qualities cited in Teacher Education: The Requirements and Curriculum Guide, copies of which are available in the Weinberg Memorial Library and the Education Department. Students whose professional development is deemed unsatisfactory in these areas are subject to departmental probation and may be recommended to the Graduate Dean for dismissal from the education program.

A student who is enrolled in any certification program at the University and is recommended to be dropped from the program or refused University endorsement for certification may appeal the decision. The appeal is made through the Chair of the Department to the Teacher Education Committee, and to a Committee consisting of three persons: the Graduate Dean, the Department Chair and a person from the faculty selected by the Director of the Certification Program in which the student is enrolled.

Approval of the mentor and certifying officer must be received before a course may be substituted for any course required in the specified certification program. Courses to be transferred from another college for certification purposes must also receive approval of the mentor and certifying officer before the courses are accepted for program requirements.

### **Accreditation**

All graduate programs in the Department of Education are accredited by the Pennsylvania Department of Education (PDE) and the National Council for Accreditation of Teacher Education (NCATE).

**SECONDARY EDUCATION****Dr. David A. Wiley, Director**

The Secondary Education program offers a number of options for students. The person who already holds a secondary certificate may choose a master's degree in secondary education with a curriculum and instruction option, psychology option, content option, or general studies option, the selection depending on the student's interests. The person who does not already possess a secondary education certificate may pursue certification independent of or in conjunction with a degree.

The Foundation course requirements (9 credits) are the same for all options and include the following courses:

<b>Foundation Courses (9 credits)</b>			<b>Credits</b>
Ed	501	Educational Psychology	3
Ed	502	Educational Research	3
Ed	508	Advanced Foundations of Education	3

The various options have the following requirements in addition to the Foundation course requirements.

**Curriculum and Instruction Option**

Ed	509	Improving Instruction	3
OR			
Ed	512	General Methods and Planning	3
Ed	510	Curriculum Theory and Development	3
Ed	514	Group Processes in the Classroom	3
Ed	545	Reading in the Content Areas	3
Ed	560	Subject Methods	3
Ed	562	Teaching the Gifted Child	3
Ed	568	Education of the Exceptional Child	3
		Electives	6

Degree Requirements: Thirty-six (36) credits and a comprehensive examination are required for the Master of Science in Secondary Education with the Curriculum and Instruction Option.

**Psychology Option**

Ed	514	Group Processes in the Classroom	3
Ed	562	Teaching the Gifted Child	3
Ed	568	Education of the Exceptional Child	3
COUN	508	Developmental Psychology	3
COUN	531	Psychology of Adjustment	3
		Electives	12

Degree Requirements: Thirty-six (36) credits and a comprehensive examination are required for the Master of Science in Secondary Education with the Psychology Option.

**Content Option**

Ed.	509	Improving Instruction	3
Ed.	560	Subject Methods	3
		(English concentration - Engl 507)	
		Electives	0-3

The student and mentor will select fifteen (15) to eighteen (18) graduate credits in one of the content areas listed below:

History  
Chemistry  
English  
Mathematics

**Degree Requirements:** The Master of Science in Secondary Education with the Content Option is awarded with thirty-six (36) credits and the comprehensive examination.  
General Studies Option Electives 27

**Degree Requirements:** Thirty-six (36) credits and a comprehensive examination are required for the Master of Science in Secondary Education with a General Studies Option. This option requires prior approval by the mentor in consultation with the Chair of the Education Department of a sequence of studies directed toward a professionally identified goal.

**Teacher Certification Requirements:** Completion of the following courses, if not previously transcribed or documented as being completed to the department's satisfaction, shall constitute the requirements for certification:

Ed	501	Educational Psychology	3
Ed	508	Advanced Foundations of Education	3
Ed	511	Computer Literacy for Educators	3
Ed	512	General Methods and Planning	3
Ed	515	Secondary Classroom Management and Discipline	3
Ed.	516	Field Experience I	1
Ed.	517	Field Experience II	1
Ed.	518	Field Experience III	1
Ed	545	Reading in the Content Areas	3
Ed	560	Subject Methods	3
Ed	581	Planning in the Secondary Teaching Internship	2 variable
Ed	582	Instruction in the Secondary Teaching Internship	2 variable
Ed	583	Management in the Secondary Teaching Internship	2 variable
Ed	584	Professional Growth in the Secondary Teaching Internship	3 variable

Students working for certification can elect any of the options above if they choose to work toward a degree. The number of credits required in the Teaching Internship may be adjusted based on years of previous teaching experience.

Note: Additional credits in the subject area may be required depending on the student's previous course work and how this relates to the program in which the student wishes to obtain certification.

In order for certification applications to be processed, the student must achieve satisfactory scores on the National Teacher Examination required by the Pennsylvania Department of Education. These tests include:

- 1) Basic Skills;
- 2) General Knowledge;
- 3) Professional Knowledge;
- 4) The Specialization Area Test - mathematics, English, etc. as appropriate for the certificate sought by the candidate.

**Additional Certifications and Self-Improvement**

Students who already possess secondary teaching certification may pursue additional certifications. Courses required for the additional certifications will depend on the area(s) in which certification is sought and on previous course work. The student should consult the Director of the Secondary Education program regarding specific requirements.

Students may also take graduate courses for self-improvement, without reference to either a degree program or a certification program.

**ELEMENTARY EDUCATION****Prof. Sandra DiGiaino, Director**

The Elementary Education program offers a number of options for students. The person who already holds an elementary education certificate may choose a master's degree in elementary education with a curriculum and instruction option, a psychology option, or a general studies option, the selection depending on the student's interests. The person who does not already possess an elementary education certificate may pursue the certification independent of or in conjunction with a degree.

The Foundation course requirements (9 credits) are the same for all options and include the following courses:

<b>Foundation Courses (9 credits)</b>			<b>Credits</b>
Ed	501	Educational Psychology	3
Ed	502	Educational Research	3
Ed	508	Advanced Foundations of Education	3

The various options have the following requirements in addition to the Foundation course requirements.

**Curriculum and Instruction Option**

Ed	509	Improving Instruction	3
Ed	510	Curriculum Theory and Development	3
Ed	564	Teaching Elementary Language Arts	3
Ed	567	Teaching Elementary Social Studies	3
Ed	571	Teaching Elementary Mathematics	3
Ed	574	Teaching Elementary Science	3
		Electives	9

Degree Requirements: Thirty-six (36) credits and a comprehensive examination are required for the Master of Science in Elementary Education with the Curriculum and Instruction Option.

**Psychology Option**

Ed	514	Group Processes in the Classroom	3
Ed	562	Teaching the Gifted Child	3
Ed	568	Education of the Exceptional Child	3
COUN	508	Developmental Psychology	3
COUN	531	Psychology of Adjustment	3
		Electives	12

Degree Requirements: Thirty-six (36) credits and a comprehensive examination are required for the Master of Science in Elementary Education with the Psychology Option.

**General Studies Option**

Electives 27

Degree Requirements: Thirty-six (36) credits and a comprehensive examination are required for the Master of Science in Elementary Education with the General Studies Option. This option requires prior approval by the mentor in consultation with the Chair of the Education Department of a sequence of studies directed toward a professionally identified goal.

Teacher Certification Requirements: Completion of the following courses, if not previously transcribed or documented as being completed to the department's satisfaction, shall constitute the requirements for certification:

Ed	501	Educational Psychology	3
Ed	503	Educational Tests and Measurement	3
Ed	508	Advanced Foundations of Education	3
Ed	511	Computer Literacy for Educators	3
Ed	513	Elementary Classroom Management and Discipline	3
Ed	516	Field Experience I	1

UNIVERSITY OF SCRANTON

Ed	517	Field Experience II	1
Ed	518	Field Experience III	1
Ed	541	Foundations of Reading	3
Ed	545	Reading in the Content Areas	3
Ed	564	Teaching Elementary Language Arts	3
Ed	567	Teaching Elementary Social Studies	3
Ed	568	Education of the Exceptional Child	3
Ed	571	Teaching Elementary Mathematics	3
Ed	574	Teaching Elementary Science	3
Ed	586	Planning in the Elementary Teaching Internship	2 variable
Ed	587	Instruction in the Elementary Teaching Internship	2 variable
Ed	588	Management in the Elementary Teaching Internship	2 variable
Ed	589	Professional Growth in the Elementary Teaching Internship	3 variable
<b>Total Credits</b>			<b>42-48</b>

Students working for certification can elect any of the options above if they choose to work toward a degree. The number of credits required in the: Teaching Internship may be adjusted based on years of previous teaching experience.

In order for applications to be processed, the student must achieve satisfactory scores on the National Teacher Examination required by the Pennsylvania Department of Education. These tests include:

- 1) Basic Skills;
- 2) General Knowledge I - social studies, literature/fine arts, science;
- 3) Professional Knowledge;
- 4) The Specialization Area Test - Education in the Elementary School.

**ADMINISTRATION (ELEMENTARY AND SECONDARY)****Dr. Thomas W. Gerrity, Director****Objectives**

The preparation of elementary and secondary school principals.

**Admission Requirements**

These requirements for admission to the Administration program are in addition to the requirements of the Graduate School.

- 1 Recommendations from three persons capable of evaluating the candidate's personal qualities as well as academic potential.
- 2 A written self-estimate of the candidate's qualifications for the position of principal.
- 3 A personal interview.

**The Master's Degree**

The student will be recommended for a Master of Science degree in either Elementary School Administration or Secondary School Administration after satisfactory completion of required courses, as approved by the mentor, passed a comprehensive examination in School Administration, and filed an approved scholarly paper or a professional project sixty days before graduation. With the mentor's permission, the student may substitute a prescribed three-credit course for the scholarly paper or professional project.

Normally thirty-six (36) credits are required for the Master of Science degree, and forty-eight (48) credits for certification as an Elementary School Principal or a Secondary School Principal.

Courses are prescribed from the following list; other courses, including electives, may be substituted in consultation with the mentor.

<b>Course</b>	<b>Administrative Sequence:</b>	<b>Credits</b>
* Ed 521	Educational Administration	3
* Ed 522	Problems in School Administration and Supervision	3-6
Ed 523	Public Relations for Educators	3
Ed 524	Personnel Management for Educators	3
** Ed 525	School Finance	3
Ed 526	School Plant Management	3
Ed 527	School and Community Relations	3
*** Ed 528	Practicum in School Administration	3-6
** Ed 529	School Law	3
Ed 530	Seminar in Advanced School Law	3
Ed 531	Educational Management	3
* Ed 532	The Elementary School Principal as Administrator	3
* Ed 533	The Secondary School Principal as Administrator	3
Ed 534	Administration & Organization of the Middle School	3
* Ed 535	Principles and Practices of Supervision	3
Ed 536	Practicum in Supervision	3
<b>Curriculum and Instruction Sequence:</b>		
Ed 509	Improving Instruction	3
* Ed 510	Curriculum Theory and Development	3
Ed 541	Foundations of Reading	3
Ed 545	Reading in the Content Areas	3
<b>Psychological and Behavioral Sequence (any one)*:</b>		
COUN 503	Group Counseling and Dynamics	3
COUN 508	Developmental Psychology	3
COUN 531	Psychology of Adjustment	3
COUN 567	Health and Behavior	3
<b>Philosophical and Sociological Sequence*:</b>		



UNIVERSITY OF SCRANTON

Ed	508	Advanced Foundations of Education	3
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**Research Sequence\*:**

Ed	502	Educational Research	3
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\* Normally required for degree and certification.

\*\* Normally required for certification only.

\*\*\* One semester of Ed. 528 is required for degree; a second semester of Ed. 528 is normally required for certification. Note: In certain circumstances, Ed. 530 may be substituted for Ed. 529 and Ed. 522 may be substituted for another course.

**READING****Dr. Joseph A. Fusaro, Director**

The primary purpose of the reading program is to prepare individuals to function as reading specialists in the schools. Individuals who successfully complete the reading program will ordinarily qualify for the Pennsylvania reading specialist instructional certificate, which is a K-12 certificate. An ancillary purpose is to prepare individuals to teach developmental literacy on the higher education level, particularly in junior/community colleges.

**Master's Degree and Reading Certificate for Certified Individuals**

Individuals who already hold a valid teaching certificate and want a reading specialist certificate plus a Master of Science degree in reading must complete the following:

<b>Foundation Courses (9 credits)</b>			<b>Credits</b>
Ed	501	Educational Psychology	3
Ed	502	Educational Research	3
Ed	508	Advanced Foundations of Education	3
<b>Reading Courses (21 credits)</b>			
Ed	541	Foundations of Reading*	3
Ed	542	Psycholinguistic Implications for the Teaching of Reading	3
Ed	543	Clinical Diagnosis of Reading Disabilities	3
Ed	545	Reading in the Content Areas*	3
Ed	546	Organization and Operation of Reading Programs	3
Ed	548	Teaching of Study Skills	3
Ed	549	Instructional Practicum	3
		Electives	0-6

(The Director of the Reading Program may permit appropriate substitutions of starred (\*) courses if similar courses were completed successfully on the undergraduate level.)

Degree Requirements: Thirty (30) credits, an approved scholarly paper or professional contribution and a comprehensive examination. Individuals may choose six (6) additional credits in approved electives in lieu of the scholarly paper or professional contribution.

**Reading Certification Only for Certified Individuals**

Individuals who already hold a valid teaching certificate and want a reading specialist certificate, but not a master's degree must complete the twenty-one (21) credits in reading courses listed above and pass a reading competency test.

**Master's Degree and Reading Certificate for Non-Certified Individuals**

Individuals who have a bachelor's degree, but do not hold a valid teaching certificate and want both the Master of Science degree and a reading specialist certificate must complete the nine (9) credits in foundation courses and the twenty-one (21) credits in reading courses listed above plus the following courses:

<b>Credits</b>			
Ed	503	Educational Tests and Measurement	3
Ed	513 (or 515)	Elementary (or Secondary) Classroom Management and Discipline	3
Ed	516	Field Experience I	1
Ed	517	Field Experience II	1
Ed	518	Field Experience III	1
Ed	581 (or 586)	Planning in the Secondary (or Elementary) Teaching Internship	2
Ed	582 (or 587)	Instruction in the Secondary (or Elementary) Teaching Internship	2
Ed	583 (or 588)	Managing Classrooms in the Secondary (or Elementary) Teaching Internship	2
Ed	584 (or 589)	Professional Development in the Secondary (or Elementary) Teaching Internship	3

## UNIVERSITY OF SCRANTON

Degree Requirements: Forty-eight (48) credits, an approved scholarly paper or professional contribution and a comprehensive examination. Individuals may choose six (6) additional credits in approved electives in lieu of the scholarly paper or professional contribution.

### **Reading Certification Only for Non-Certified Individuals**

Individuals who have a bachelor's degree, do not hold a valid teaching certificate and want a reading specialist certificate, but not a master's degree must complete all courses listed on page 33 except for Ed. 502, Educational Research, and must pass a reading competency test.

### **Developmental Literacy Option**

Individuals may pursue a Master of Science degree under the developmental literacy option - which does NOT lead to certification as a reading specialist - by completing the nine (9) credits in foundation courses plus the courses listed below:

#### **Credits**

Engl	505	Modern Grammar in the English Curriculum	3
Engl	506	Composition in the English Curriculum	3
Ed	543	Clinical Diagnosis of Reading Disabilities	3
Ed	545	Reading in the Content Areas	3
Ed	548	Teaching of Study Skills	3
Ed	549	Instructional Practicum	3
		Electives	3-9

Degree Requirements: Thirty (30) credits, an approved scholarly paper or professional contribution and a comprehensive examination. Individuals may choose six (6) additional credits in approved electives in lieu of the scholarly paper or professional contribution.

### **Reading Supervisor**

The University offers an approved program for becoming certified as a Reading Supervisor in Pennsylvania. Please see the program description in the Supervision section of this catalog.

## SUPERVISION

**Dr. Thomas W. Gerrity, Director**

### Objectives

The preparation of elementary and secondary school subject supervisors. The Supervision credential may be pursued in the following areas:

School Guidance Services	Foreign Languages
Reading	Mathematics
Biology	Chemistry
Physics	Social Studies
English	Communication

### Admission Requirements

The candidate must meet the following requirements for acceptance into the Supervision program:

1. Possess adequate competency in the subject to be supervised. The application will be screened by the program faculty in the area for which the supervisory certificate is to be awarded.
2. Possess a valid teacher's certificate in area of concentration.
3. Complete an application for the Graduate School and meet the Graduate School admission standards.

### Course Requirements

A student is required to complete a minimum of 24 credits in order to satisfy the competency requirements for supervisory certification, in order to be recommended by the University to the State Department of Education for certification as a supervisor. A suitable program, taken from the following courses and courses in the appropriate discipline, will be developed by the mentor in consultation with the student. The program must also be approved by the University's Certifying Officer. A competency needs analysis will be made to assist in developing a program of studies.

Courses			Credits
Ed	502	Educational Research	3
Ed	509	Improving Instruction	3
Ed	510	Curriculum Theory and Development	3
Ed	522	Problems in School Administration and Supervision	3
Ed	529	School Law	3
Ed	535	Principles and Practices of Supervision	3
Ed	536	Practicum in Supervision	3
COUN	503	Group Counseling and Dynamics	3
COUN	508	Developmental Psychology	3

## **COURSE DESCRIPTIONS**

### **GENERAL COURSES**

#### **Credits**

#### **Ed. 501. Educational Psychology 3**

(Prerequisite, teaching experience or consent of instructor) A study of psychological principles related to education, including learning, motivation, evaluation, with emphasis on practical application in the classroom setting.

#### **Ed. 502. Educational Research 3**

This is a basic course concerned with the nature of research problems in education. It is intended to introduce students to the basic principles of research; the more frequently employed research methodologies; the conceptualization of research problems in education; the formulation of hypotheses and the study of selected data-gathering instruments. A research project is required, wherein the students will gain a facility in the critical analyses of research material essential to their graduate studies.

#### **Ed. 503. Educational Tests and Measurement 3**

Fundamental concepts applicable to educational testing, including validity, reliability, types of scores. Uses of standardized tests, especially achievement tests, in school settings. Methods of developing classroom tests.

#### **Ed. 508. Advanced Foundations of Education 3**

This course is intended to present the foundations of education in an integrated, multidisciplinary approach. It will trace the development of education both as an institution and in terms of the ideas that have shaped that institution. The goal is a thorough perspective of education as it is today.

#### **Ed. 509. Improving Instruction 3**

Students will study a wide spectrum of techniques and strategies to improve classroom instruction and enhance learning. Emphasis will be on practical classroom applications.

#### **Ed. 510. Curriculum Theory and Development 3**

Principles of curriculum construction which underlie the reorganization of the program of studies for elementary and secondary schools, sources of the curriculum, methods of organization, structure of knowledge, and curriculum planning and development.

#### **Ed. 511. Computer Literacy for Educators 3**

This course for educators is designed to meet the following goals (1) knowledge of how computers operate; (2) develop ability to use the computer; (3) become aware of some of the applications of computers; (4) to understand the social implications of computers and computing; and (5) to understand the rudiments of the LOGO computing language, a language commonly available for microcomputers which promotes structured programming characterized by top-down design with stepwise refinement through modularization.

#### **Ed. 512. General Methods and Planning 3**

Methodology for setting direction in the classroom, creating a learning situation, developing the content, reinforcing and evaluation will be covered. Students will be involved with developing plans for teaching.

#### **Ed. 513. Elementary Classroom Management and Discipline 3**

(Prerequisites, Ed. 564, 567, 571, 574 and 518. Co-requisites, Ed. 586, 587, 588 and 589) An in-depth study of the rationale, theories and techniques for creating an elementary school classroom environment where learning can take place and for handling specific individual and group behavior problems in productive ways.

#### **Ed. 514. Group Processes in Classrooms 3**

A study of group processes as they impact on the management and instruction of classrooms. It will be presented in both its theoretical and practical dimensions.

#### **Ed. 515. Secondary Classroom Management and Discipline 3**

(Prerequisites, Ed. 512, 560 and 518. Co-requisites Ed. 581, 582, 583 and 584) An in-depth study of the rationale, theories and techniques for creating a secondary school classroom environment

where learning can take place and for handling specific individual and group behavior problems in productive ways.

**Ed. 516. Field Experience I 1**

(Co- or prerequisites, Ed. 508 or permission of instructor) Competency in making informed and structured observation of teaching styles, techniques and environments will be developed through videotaped and written case studies.

**Ed. 517. Field Experience II 1**

(Prerequisite, Ed. 516 and co- or prerequisite, Ed. 501 or permission of instructor. Requires application to advisor and approval by program director during advance registration) Course stresses exposure to basic education environments by assigning projects to be carried out in basic education schools and other agencies. Assignments will be completed through observation, tutoring and oral/written reports.

**Ed. 518. Field Experience III 1**

(Prerequisite, Ed. 517 and co- or prerequisite, Ed. 512 or permission of instructor. Requires application to advisor and approval by program director during advance registration) Course stresses exposure to the world of the teacher by involving the student in activities in basic education. Activities will be completed under the guidance of an assigned teacher in a basic education school setting. Secondary settings are in the Fall semesters, and elementary are in the Spring semesters.

**ADMINISTRATION**

**Ed. 521. Educational Administration 3**

A foundations course in general school administration, involving philosophical bases, organization in a democratic society, administration of instruction and personnel. Required of all students beginning a major in educational administration and a prerequisite for other courses in educational administration.

**Ed. 522. Problems in School Administration and Supervision 3-6**

(Prerequisite, Ed. 521) A seminar for the student seeking certification in elementary or secondary school administration or in supervision. Emphasis is upon in-depth examination of a selected problem or issue in administration or supervision. Admission with approval of the instructor.

**Ed. 523. Public Relations for Educators 3**

An introduction to school public relations. Emphasis is focused upon establishing contact between schools and the general public through the use of mass media.

**Ed. 524. Personnel Management for Educators 3**

An overview of the establishment and performance of personnel policies as they relate to recruitment, selection, orientation, deployment, promotion, evaluation, in-service development, morale, and dismissal. Admission with consent of instructor.

**Ed. 525. School Finance 3**

An introduction to public school finance. Emphasis is focused upon the responsibilities in handling student funds, district budgeting and accounting, and modern planning-programming-budgetary systems. Admission with consent of instructor.

**Ed. 526. School Plant Management 3**

A study of problems involved in the planning, operation, and maintenance of school plant facilities. Emphasis is upon efficient use of existing plant facilities and their possible adaptation to meet modern educational and community needs. Admission with consent of instructor.

**Ed. 527. School and Community Relations 3**

A study of the relationship of the school to the community. Emphasis is focused upon the school community concept, community analysis, community characteristics affecting quality education, and public participation in educational planning. Admission with consent of instructor.

**Ed. 528. Practicum in School Administration 3-6**

(Prerequisite, Ed. 532 or Ed. 533 as applicable) The purpose of this course is to give the student practical experience in administrative work. A minimum of 150 clock hours in one semester must be spent on this work. Work is done under supervision in a local school system according to a

definite schedule approved by the instructor and the administrator of the school system involved. Admission by special arrangement. (Normally offered Fall and Spring semesters only.)

**Ed. 529. School Law 3**

A study of common law legislative enactments and directives of the Department of Education as they pertain to school systems.

**Ed. 530. Seminar in Advanced School Law 3**

A comprehensive study of legal issues related to the operation of the nation's schools. Special emphasis is placed on issues in school law that may affect the nation and substantially alter the course of education. Admission with approval of the instructor.

**Ed. 531. Educational Management 3**

An overview of functions and problems in three major areas of responsibility: finance, law, and personnel.

**Ed. 532. The Elementary School Principal as Administrator 3**

(Prerequisite, Ed. 521) A technical course emphasizing the administrative duties and responsibilities of the elementary school principal. Attention is focused on types of organization, program of studies, pupil personnel, teaching staff, plant and equipment, and community relationships.

**Ed. 533. The Secondary School Principal as Administrator 3**

(Prerequisite, Ed. 521) A technical course emphasizing the administrative duties and responsibilities of the secondary school principal. Attention is focused on problems of organization, program of studies, pupil personnel, teaching staff, plant and equipment, and community relationships.

**Ed. 534. Administration and Organization of the Middle School 3**

(Prerequisite, Ed. 521) A technical course emphasizing the organizational and administrative duties and responsibilities of the middle school principal. Attention is focused on the problems of organization, program of studies, pupil personnel, teaching staff, plant and equipment, and community relationships.

**Ed. 535. Principles & Practices of Supervision 3**

A description of a philosophy of supervision, principles of supervision, the role of the supervisor, planning a supervisory program, techniques of supervision, evaluation, coordinating the instructional program, and trends in supervision.

**Ed. 536. Practicum in Supervision 3**

(Prerequisites, Ed. 509 and Ed. 535) The purpose of this course is to give the student practical experience in supervision. A minimum of 150 clock hours in one semester must be spent on this assignment. This is accomplished under the supervision of a certified supervisor, according to a definite schedule mutually approved by the instructor and cooperating supervisor.

**READING**

**Ed. 541. Foundations of Reading 3**

A basic course in the foundation of reading designed to provide an introduction to reading instruction and reading programs. A study of the reading skills, techniques and methods which are essential for effective reading will be examined.

**Ed. 542. Psycholinguistic Implications for the Teaching of Reading 3**

(Prerequisite, Ed. 541 or consent of instructor) A course designed to acquaint students with theories of the reading process as they relate to children's language acquisition and learning to read. Consideration will be given to the linguistic aspects of teaching reading.

**Ed. 543. Clinical Diagnosis of Reading Disabilities 3**

(Prerequisite, Ed. 542 or consent of instructor) A laboratory course designed to assist the reading specialist in becoming proficient in diagnostic skills. Standardized tests and informal assessment instruments will be examined. The student will be required to prepare a Diagnostic Case Report on a student experiencing difficulty in reading. Selected assessment tools will be identified to recommend as appropriate for use by the classroom teacher.

**Ed. 544. Instructional Materials and Strategies for the Teaching of Reading 3**

A comprehensive survey of materials, resources and devices used to teach reading. Emphasis will be placed on traditional and current trend materials, laboratory kits, teacher-made devices and instructional media.

**Ed. 545. Reading in the Content Areas 3**

A course designed for acquainting students with procedures of teaching functional reading skills in the elementary and secondary schools. Emphasis will be placed on the specialized vocabularies, concepts and skills which are considered necessary for the comprehension of reading materials pertinent to content area subjects. Various resources and devices will be examined.

**Ed. 546. Organization and Operation of Reading Programs 3**

A lecture-discussion course dealing with the responsibilities in setting up and directing a school reading program. Attention is given to types of programs and approaches to teaching reading in these different organizational patterns as well as incorporating procedures to support the regular classroom program. Admission with approval of instructor.

**Ed. 547. Classroom Diagnosis of Reading Problems 3**

The course is designed to examine formal and informal techniques of diagnosis appropriate for use by the classroom teacher. Consideration will be given to identifying skill deficiencies exhibited by students experiencing reading problems. An examination of appropriate diagnostic techniques will be made. Interpretation of the assessment material will be made to determine their effectiveness for specific situations.

**Ed. 548. Teaching of Study Skills 3**

A course designed to apprise the student of strategies effective in developing desirable study habits essential for learning. Consideration will be given to receptive, reflective, and expressive skills.

**Ed. 549. Instructional Practicum 3**

(Prerequisite, Ed. 543 or Ed. 547 or consent of instructor) A practicum designed to provide a supervised instructional experience. The student is expected to assess and initiate a program of instruction for a disabled learner. A report of the results of the diagnosis, remediation, progress, and recommendations will be compiled.

**MATHEMATICS**

**Ed. 554. Modern Algebra for Teachers 3**

A treatment of groups, rings, etc. culminating in the negative result, Abel's Theorem, that there can be no formula for solving polynomial equations of degree greater than four. Whenever possible, the material shall be related to the various subsets of the real number system covered in the secondary schools.

**Ed. 555. Linear Algebra and Theory of Equations 3**

A study of second, third and fourth degree equations and systems of equations. Along with the methods of solution, an attempt will be made to provide the teacher with a backlog of applications for each type in the form of word problems.

**Ed. 556. Introductory Analysis 3**

An in-depth study of the concepts and principles of calculus that are generally encountered in a secondary school analysis course. Emphasis will be placed on the development of the concepts of limit, derivative and integral and the various techniques a teacher might utilize in presenting them to a secondary school class. The student need not presently possess facility with calculus as this will develop during the course.

**Ed. 557. Geometry 3**

A study of Euclidean geometry including a discussion of methods and materials that teachers may employ in order to generate interest and enhance presentations. Wherever possible, relevant practical applications will be provided. A discussion of certain transformations will also be included.

**Ed. 558. Probability and Statistics 3**



An axiomatic approach to probability covering the basic rules, independence and conditional probability, probability functions, normal curve and hypothesis testing.

**Ed. 559. Introduction to Computing 3**

A discussion of various secondary-school problem-solving techniques that involves the use of computers.

**SPECIFIC SUBJECT MATTER METHODS AND MISCELLANEOUS**

**Ed. 560. Subject Methods 3**

Utilizing knowledge of planning and teaching generally, students will be guided in the analysis of specific content and techniques for teaching that content. They will demonstrate their ability to carry out plans in "micro" teaching experiences. Offered for various content areas.

**Ed. 562. Teaching the Gifted Child 3**

Teachers will have an opportunity to study the broad range of giftedness in children. Emphasis will be on how to foster the development of gifted youngsters in our schools. Programming for the gifted will be studied also.

**Ed. 563. Children's Literature 3**

Literature for children from kindergarten through the elementary school years. Children's literary needs and interests will be emphasized.

**Ed. 564. Teaching Elementary Language Arts 3**

Focus is on the place of the language arts in the total elementary school curriculum. Topics included are integration of reading, writing, speaking and listening; correlation of these four areas of the language arts with the content subjects; and a consideration of innovative spelling and handwriting programs.

**Ed. 567. Teaching Elementary Social Studies 3**

Students will study selected topics, problems, and recent developments in the elementary/social studies curriculum and instruction.

**Ed. 568. Education of the Exceptional Child 3**

A general view of the field; historical background - both philosophical and legislative, with special emphasis upon PL 94-142. Physical, mental and emotional handicaps will be reviewed in some detail. Special concerns of gifted children will also be presented. Preventative and remedial programs and practices will be emphasized.

**Ed. 569. Workshop in Education 3**

Students will have the opportunity to develop and test innovative curriculum materials and strategies with special emphasis on models for individualizing instruction.

**Ed. 571. Teaching Elementary Mathematics 3**

This course is designed to provide the elementary education major with planning and instructional strategies appropriate for use in the science and mathematics areas of the elementary curriculum. An analysis of content will be made in light of the needs of the elementary school, the elementary student and society.

**Ed. 572. The Secondary School Mathematics Curriculum 3**

(Co- or prerequisites, Ed. 512) This course examines the strategies and content of the mathematics curricula of the secondary school and attempts to compare them to major contemporary reform efforts. The course includes a review of secondary (Junior and Senior High School) mathematics.

**Ed. 574. Teaching Elementary Science 3**

Modern science curricula in elementary education. Consideration will be given to scientific processes, organization, planning, methods, materials and evaluation.

**Ed. 575. Elementary S-T-S Methods 3**

(Elementary science teaching experience or approval of instructor) This course will acquaint in-service teachers with the basic tenets of the field of science-technology-society and how it may pertain to elementary science education. By examining methods of introducing S-T-S issues and

topics into the elementary school curriculum, students will be able to construct and implement S-T-S units for their own use.

**Ed. 576. Secondary S-T-S Methods 3**

(Secondary science teaching experience or approval of instructor) This course will acquaint in-service teachers with the basic tenets of the field of science-technology-society and how it may pertain to secondary science education. By examining methods of introducing S-T-S issues and topics into the secondary school curriculum, students will be able to construct and implement S-T-S units for their own use.

**INTERNSHIP AND RESEARCH**

**Ed. 581. Planning in the Secondary Teaching Internship Variable to 2**

(Prerequisites, Ed. 512, 516 and 517) Competency will be developed in unit and lesson planning during actual teaching practice in a secondary school. Supervision and evaluation will be with appropriate school mentors and University faculty.

**Ed. 582. Instruction in the Secondary Teaching Internship Variable to 2**

(Co-requisite, Ed. 581) Competency will be developed in the delivery of effective instruction utilizing appropriate methodologies at appropriate levels during actual teaching practice in a secondary school. Supervision and evaluation will be with appropriate school mentors and University faculty.

**Ed. 583. Managing Classrooms in the Secondary Teaching Internship Variable to 2**

(Co-requisite, Ed. 582) Competency will be developed in classroom management including routine paperwork, maintaining a positive atmosphere and utilizing appropriate discipline methods during actual teaching practice in a secondary school. Supervision and evaluation will be with appropriate school mentors and University faculty.

**Ed. 584. Professional Development in the Secondary Teaching Internship Variable to 3**

(Co-requisite, Ed. 582) Positive professional development will be documented during actual teaching practice in a secondary school through periodic evaluation and observation by assigned school mentors and University faculty, participating in seminars, appropriate reaction to suggestions and criticism, and fulfilling general responsibilities as outlined in the Student Teaching Handbook.

**Ed. 586. Planning in the Elementary Teaching Internship Variable to 2**

(Prerequisites, Ed. 512, 516 and 517) Competency will be developed in unit and lesson planning during actual teaching practice in an elementary school. Supervision and evaluation will be with appropriate school mentors and University faculty.

**Ed. 587. Instruction in the Elementary Teaching Internship Variable to 2**

(Co-requisite, Ed. 586) Competency will be developed in the delivery of effective instruction utilizing appropriate methodologies at appropriate levels during actual teaching practice in an elementary school. Supervision and evaluation will be with appropriate school mentors and University faculty.

**Ed. 588. Managing Classrooms in the Elementary Teaching Internship Variable to 2**

(Co-requisite, Ed. 587) Competency will be developed in classroom management including routine paperwork, maintaining a positive atmosphere and utilizing appropriate discipline methods during actual teaching practice in an elementary school. Supervision and evaluation will be with appropriate school mentors and University faculty.

**Ed. 589. Professional Development in the Elementary Teaching Internship Variable to 3**

(Co-requisite, Ed. 587) Positive professional development will be documented during actual teaching practice in an elementary school through periodic evaluation and observation by assigned school mentors and University faculty, participating in seminars, appropriate reaction to suggestions and criticism, and fulfilling general responsibilities as outlined in the Student Teaching Handbook.

**Ed. 590. Research Seminar Variable to 3**

Designed for students who are working on their M.A. thesis. Registration is only with permission of the student's advisor and the Department Chair.

**Ed. 592. Directed Study Variable to 6**

This course is designed for students working in independent study on special projects and workshops. Registration in this course requires permission of the student's mentor, and the Department Chair.

## DEPARTMENT OF HUMAN RESOURCES

**Dr. John K. Stout, Chair**

### **General Information**

The Department offers coursework leading to Master of Science degrees in Community Counseling, Health Administration, Human Resources Administration, Rehabilitation Counseling, and School Counseling. The following policies and procedures apply to all these curricula. Specific curricular requirements are listed under the respective programs.

### **Admissions**

The applicant for admission to any Departmental program must possess a bachelor's degree from an accredited college or university and provide the Graduate School with evidence of satisfactory undergraduate preparation. The ordinary standard for admission is an undergraduate QPI of at least 2.75 on a grading scale of 4.00. Students falling below this level may submit other evidence of their ability to complete successfully a graduate program, such as grades in other graduate level courses, a record of progressively higher work responsibilities, or scores from the Miller Analogies Test or Graduate Record Examination and may be accepted on a probationary basis. Students accepted on probation cannot enroll for more than six credits in a semester and must obtain a cumulative QPI of at least 3.0 after completing nine credits of coursework to be removed from probation. A personal interview prior to acceptance is required. New students may start coursework in Fall and Spring semesters only. Applicants must be accepted by the Graduate School before starting courses. International students should score at least 575 on the TOEFL.

The Health Administration and Human Resources Administration programs accept applicants with or without professional work experience. Individuals without work experience may be required to enroll in an internship and/or externship to gain practical experience. Applicants should be prepared to discuss their career goals and employment possibilities with the program director during a personal interview, which is required prior to acceptance, and show how they see the curriculum supporting their longer-term goals.

### **Standards of Progress and Transfer of Credits**

Please refer to the Academic Regulations on pages 16-17 regarding standards of progress and transfer of credits for the Graduate School. Students who wish to waive a required counseling course may petition the program director to do so. Courses waived will not reduce the number of credits required for graduation.

In addition to academic competence, the student is continuously evaluated on commitment to the program and the profession, and on personal and emotional characteristics and qualities related to successful professional performance. Feedback on progress is provided by the student's mentor on a regular basis.

When the counseling program faculty identify deficiencies in professional development which make a counseling student unsuitable for performance of the professional role, the student and the Dean of the Graduate School will be advised by the mentor of such an evaluation. The mentor will assist the student in developing a plan to remediate the deficiencies which have been identified and a suitable time frame for remediation will be established. Completion of one semester following notification will be considered the minimum time frame to be allowed for remediation of deficiencies. At the conclusion of the time designated, the faculty shall review the student's performance and recommend to the Dean of the Graduate School that the student should be retained, given additional time for remediation, or dismissed from the program. The student shall have the opportunity to present evidence to the program faculty prior to the recommendation to the Dean.

### **Comprehensive Examination**

Students in all programs must successfully pass a comprehensive examination which may combine written, oral, and experiential components. Application for the comprehensive examination in all programs except School Counseling is made when the student registers for the Counseling Practicum (COUN 590, 591) or Administrative Issues (HAD 509 and HRA 509). The examination is completed at the midpoint of the course. Application for comprehensive examination in School Counseling must be made prior to the deadline listed in this catalog.

### **Application for Degree**

Application for degree should be made at Advance Registration for the last semester of coursework. Degrees are conferred in May, August, December and January, but commencement exercises are held in May only.

### **Endorsement of Students in Counseling Programs**

Students who successfully complete all their curricular and clinical training requirements for the Master of Science degree in Community Counseling, Rehabilitation Counseling, or School Counseling will receive formal endorsement in their area of specialization by the faculty of their program. Formal endorsement includes recommendation for state and/or national certification and employment in settings consistent with the training provided in their programs. Students will receive formal endorsement only in that program for which they have successfully completed all requirements and will be recommended only for certification and employment consistent with training provided. In cases in which a certifying body allows a student to sit for a certification program, the program faculty shall endorse the student as a candidate for that examination if the student has completed that portion of the program required by that certifying body.

### **Financial Aid**

The Department has several graduate assistantships available. Applications for assistantships are made through the Graduate School. Students must be accepted as a student in one of the Departmental programs by March 1 to be considered for an assistantship for the following Fall semester.

For traineeships in the Rehabilitation Counseling program, see page 21.

### **Scheduling**

Classes are offered from 4:30 p.m. to 7:10 p.m. and from 7:20 p.m. to 10:00 p.m. on Mondays through Thursdays. Selected Health Administration courses are offered on Saturdays. Courses are scheduled to enable full-time students to attend classes two or three nights a week; part-time students usually attend one or two nights a week. Each course meets one night a week in the Fall and Spring semesters and twice weekly during Intersession and Summer sessions. Internships in the counseling programs may be spread over several semesters to accumulate the needed number of clock hours.

Degrees in Health Administration and Human Resources Administration can be received in 12 months of full-time academic study, although most students attend on a part-time basis and earn their degree in 24 to 36 months. A maximum of 20 new students start course work in these programs each Fall and Spring semester. Applicants above this number will be placed on a waiting list for entry in the following semester. Generally the first courses taken in the Health Administration program are HAD 500 and HAD 501 and HRA 500 and HRA 503 in the Human Resources Administration program.

### **Employment Opportunities**

According to the Occupational Outlook Handbook, U.S. Department of Labor, employment in the fields of counseling, health administration and human resources administration is predicted to grow at a faster than average pace through the year 2005.

### **Other Information**

The student should refer to the Academic Regulations section of the Graduate School catalog for additional relevant policies.



## UNIVERSITY OF SCRANTON

HAD 501	Financial Management
HAD 502	Health Care Law
HAD 503	Quality Resources Management
HAD 504	Human Resources Administration
HAD 505	Health Care Statistics
HAD 506	Health Policy Management
HAD 509	Administrative Issues
HAD 584	ST: Medical Ethics and Social Responsibility (1 cr.)
Specialization Areas (14 credits required)	

### **Health Facilities Management (HFM)**

HAD 510	Hospital Administration and any two from 511, 512, and 513
HAD 511	Ambulatory Care Administration
HAD 512	Medical Practice Administration
HAD 513	Long Term Care Administration
HAD 515	Marketing Health Services (or HA elective)
HAD 584	ST: Governance and Board Effectiveness (1 cr.)
HAD 584	ST: Health Care Reimbursement (1 cr.)

### **Health Policy and Planning (HPP)**

HAD 515	Marketing Health Services (or HA elective)
HAD 519	Health Services and Systems
HRA 501	Program Planning
HRA 525	Productivity Management
HAD 584	ST: Customer Service Management (1 cr.)
HAD 584	ST: Epidemiology (1 cr.)

### **Human Resources Administration (HRA)**

HRA 524	Group Behavior (or HR elective)
HRA 530	Compensation Systems
HRA 531	Benefits Systems
HRA 532	Labor Relations (or HR elective)
HAD 584	ST: Negotiation Skills (1 cr.)
HAD 584	ST: Issues in Health Administration (1 cr.)

### **Health Care Finance (HCF)**

HAD 520	Health Care Accounting
HAD 521	Advanced Health Care Finance
HAD 522	Health Care Operations Management
HRA 525	Productivity Management
HAD 584	ST: Governance and Board Effectiveness (1 cr.)
HAD 584	ST: Health Care Auditing (1 cr.)

### **General Administration(GAD)**

Requires one 3-credit course from each Specialization Area (HFM, HPP, HRA, HCF) and two 1-credit electives.

### **Elective Fieldwork Courses**

HAD 580	Internship in Health Administration
HAD 581	Administrative Residency
HAD 583	Externship in Health Administration
	Elective Courses (3 credits)
	Elective credits are chosen from either HAD or HRA courses.
	Credits for Degree : 42

## HUMAN RESOURCES ADMINISTRATION

**Dr. Marie A. George, Director**

### Program Objectives

The objective of the Human Resources Administration program is to prepare individuals for entry into and/or advancement in the broad field of human resources. Specifically, the program is designed to: (1) academically prepare individuals to enter supervisory and administration positions; (2) enhance the performance of individuals employed in supervisory and administrative positions, but who lack academic training and credentials; and (3) academically prepare individuals to enter or advance in a variety of staff positions and departments. The program emphasizes a learning environment wherein the student can acquire academic knowledge, gain practical skills, and engage in self-exploration and personal growth.

### Areas of Specialization

Specialization allows the student to develop an area of expertise and is usually elected at the time of acceptance into the program. The student normally elects a specialization on the basis of interest and career goals although it is not required that a specialization be elected. The program contains two major specializations. Organizational Supervision is the most general and provides the broadest academic preparation in general organization and administration while Human Resources is more specialized and prepares the student for more delineated professional roles in human resources administration. The specialization is shown on the student's transcript.

The Human Resources Administration program prepares individuals to enter and/or advance in the following two Areas of Application:

**Organizational Supervision.** This specialization emphasizes preparation for and/or advancement in supervisory and administrative positions in public and private health, education, and human services organizations, agencies, and systems. Supervisory and administrative personnel work with people and need a variety of human, conceptual, and technical skills. They use the processes of planning, organizing, staffing, influencing, and controlling the efforts of individuals and commit the use of organizational resources to achieve organizational goals. In practicing the art of getting things done with and through people, supervisors and administrators are concerned with increasing the effectiveness and efficiency of a department or organization.

**Human Resources.** This specialization emphasizes preparation for and/or advancement in human resources systems. These specialists usually work in a staff or consultative capacity in most organizations. Their tasks may involve assessing personnel needs, recruitment, selection, orientation, and training; designing and implementing compensation and benefit systems; employee assessment and career development; developing discipline and grievance-handling systems; working with unions or union activity; ensuring the organization's compliance with equal employment opportunity and other governmental regulations; designing and implementing programs to ensure employee health and safety; and, providing assistance to employees with personal problems that influence their work performance.

### Curriculum

The Human Resources Administration curriculum has five core courses and courses distributed in two areas of specialization. The core courses contain knowledge applicable to staff, supervisory, and administrative positions in most organizations and are required of all students. The areas of specialization in Organizational Supervision and in Human Resources contain courses from which any four are required to constitute a specialization. There are 15 core credits and 12 specialization credits with the remaining nine credits elective and may be taken from the other specialization area courses or from other departmental or University courses, after consultation with the Program Director. Without an area of specialization, the student has 15 core credits and 21 elective credits.

### Human Resources Administration Curriculum

#### Required Core Courses

(15 credits required)

HRA 500	Organizational Supervision
HRA 501	Program Planning
HRA 502	Human Resources Administration
HRA 503	Financial Administration



UNIVERSITY OF SCRANTON

HRA 509 Administrative Issues

**Areas of Specialization**

(12 credits required)

**Organizational Supervision**

HRA 520 Leadership  
HRA 521 Work Motivation  
HRA 523 Individual Behavior  
HRA 524 Group Behavior  
HRA 525 Productivity Management  
HRA 526 Computer Technology  
HRA 527 Disability and Work  
HRA 528 Cultural Diversity

**Human Resources**

HRA 530 Compensation Systems  
HRA 531 Benefits Systems  
HRA 532 Labor Relations  
HRA 533 Labor Law  
HRA 534 Staff Development  
HRA 535 Employee Assistance Programming  
HRA 537 Human Resources Policies  
HRA 538 Health, Safety, and Security  
HRA 539 Industrial Rehabilitation

**Electives**

(Maximum: 9 credits)

HRA 505 Statistics and Measurement  
HRA 580 Internship in Human Resources

Two additional HRA courses or a maximum of two courses may be taken in other University Master's degree programs with approval of HRA Program Director.

Credits for Degree: 36

## **COMMUNITY COUNSELING**

**Dr. Thomas M. Collins, Director**

### **Program Objectives**

The objective of the Community Counseling program is to prepare professionals for direct entry into and/or advancement in counseling-related positions in private and public human service organizations and systems. Specifically, the program is designed to: (1) enhance knowledge of counseling concepts and practices; (2) provide individuals with the counseling skills necessary to function in agency settings; (3) prepare individuals for certification as counselors, and (4) enhance individuals' employability in entry level or advanced clinical positions in human service settings.

The program offers a learning environment whereby the student acquires the academic competencies of the profession, refines them through practical experience, and increases self-understanding, self-confidence, and personal effectiveness.

### **The Counseling Profession**

According to the American Counseling Association, counselors are skilled professionals who are trained to help others gain a perspective on their lives, explore options, make decisions, resolve problems, and take action. Counselors work with individuals, couples, families, and groups of persons who experience academic, behavioral, career, emotional, interpersonal, and social problems. By establishing an effective and trusting helping relationship, a counselor assesses a client's strengths and resources, and helps the client increase life-management skills so that mutually agreed upon goals may be achieved.

### **Curriculum**

The Community Counseling program is a 48 credit curriculum leading to the Master of Science degree. Thirty-six required credits include 27 credits of coursework in principles and practices of counseling, three credits of practicum and six credits of internship. Twelve credits of electives are offered to provide students with opportunities for additional study in individual areas of interest and for development of skills in dealing with specific client populations. Professional experience in a counseling-related field is not required for entry into the program.

### **Counselor Certification**

The Community Counseling program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA). Hence, graduates meet all requirements for certification as a National Certified Counselor (NCC). Graduates may apply to the National Board of Certified Counselors to take the National Counselor Examination prior to graduation from the program. Students who pass the certification examination will be granted recognition as an NCC. Students who wish to explore other types of counselor certification should consult with the Program Director. All inquiries regarding certification as an NCC and application for same should be directed to:

#### **National Board for Certified Counselors, Inc.**

3-D Terrace Way  
Greensboro, NC 27403  
(919) 547-0607

Refer to General Information under the Department of Human Resources for policies and procedures applicable to all Departmental programs.

### **Community Counseling Curriculum**

#### **Professional Foundations**

(36 credits required)

COUN 500	Professional Issues: Community Counseling
COUN 501	Counseling Skills
COUN 502	Counseling Theories
COUN 503	Group Counseling and Dynamics
COUN 504	Appraisal Techniques
COUN 505	Research in Counseling
COUN 506	Social and Cultural Issues

UNIVERSITY OF SCRANTON

COUN 507	Career Development
COUN 508	Developmental Psychology
COUN 590	Practicum: Community Counseling
COUN 595	Internship: Community Counseling (6 credits)

**General Electives**

(12 credits required)

**Disability and Specialty Populations**

COUN 520	Professional Issues: Rehabilitation Counseling
COUN 521	Physical Disabilities
COUN 522	Vocational Aspects of Disability
COUN 523	Industrial Rehabilitation
COUN 531	Psychology of Adjustment
COUN 560	Addictive Behaviors
COUN 561	Substance Abuse Education
COUN 562	Issues in Substance Abuse
COUN 565	Psychiatric Disorders
COUN 570	Problems of Adolescence
COUN 571	Counseling Issues for Women
COUN 582	Directed Study
COUN 584	Special Topics

**Counseling Systems**

COUN 532	Use of Community Resources
COUN 540	Family Counseling and Therapy
COUN 566	Behavioral Counseling
COUN 567	Health and Behavior
COUN 572	Techniques of Consultation

**Clinical Experience**

COUN 594	Practicum: Group Counseling
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Credits for Degree: 48

Total Required Credits: 36

Total Elective Credits: 12

## **REHABILITATION COUNSELING**

**Dr. David W. Hall, Director**

### **Program Objectives**

The objective of the Rehabilitation Counseling program is to prepare rehabilitation counselors and related professional personnel for entry into and/or advancement in counseling-related positions in public and private rehabilitation agencies, organizations, and systems.

More specifically, the program is designed to: (1) enhance knowledge of rehabilitation concepts and practices; (2) provide individuals with the counseling skills necessary for functioning in rehabilitation settings; (3) prepare individuals for certification as rehabilitation counselors; and (4) enhance individuals' employability in entry level or advanced clinical positions in rehabilitation settings. The program offers a learning environment in which the student can acquire the academic competencies of the profession and refine them through supervised practical experience. The program also provides a facilitative process through which the student can increase self-understanding, self-confidence, and personal effectiveness.

### **Rehabilitation Counseling Profession**

The rehabilitation counselor is an intervention specialist who either delivers or arranges to deliver therapeutic services to a variety of persons with disabilities to assist them in reaching mutually agreed upon goals. The specific roles and functions of the rehabilitation counselor, the services provided, and the goals established will vary depending on the agency or organization in which the counselor is employed. In the typical state-federal vocational rehabilitation agency, individuals with disabilities are provided a variety of psychological, medical, social and vocational services to assist the person achieve independence in living and in becoming competitively employed. In a mental health/mental retardation or drug and alcohol facility, the counselor may provide personal, social, or vocational adjustment services to assist the individual achieve the maximum health, well-being, and independence possible.

### **Curriculum**

The Rehabilitation Counseling program is a 48 credit curriculum leading to the Master of Science degree. Thirty-nine required credits include 30 credits of coursework in principles and practices of rehabilitation counseling, three credits of practicum (100 hours of supervised counseling experience) and a minimum of 6 credits of internship (600 hours of supervised field experience). Nine credits of electives are offered to provide students with opportunities for additional study in individual areas of interest and for development of knowledge and skill in working with specific client populations and in specific settings. Professional experience in a counseling-related field is not required for entry into the program.

### **Financial Aid**

Approximately 10 traineeships sponsored by the Rehabilitation Services Administration of the U.S. Department of Education are available for full-time students in the Rehabilitation Counseling program. Trainees may receive a stipend of between \$500 and \$600 each month plus waiver of tuition for up to 48 graduate credits. Application forms are available from the Department of Human Resources (717) 941-7633. Ideally, selections are made by April 30 for the following Fall semester although the awards may not be finalized until late Summer depending upon the action of the U.S. Congress.

### **Rehabilitation Counselor Certification**

The Rehabilitation Counseling program is accredited by the Council on Rehabilitation Education (CORE), a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA). Hence, graduates are eligible to sit for the national qualifying examination to become a Certified Rehabilitation Counselor (CRC). Students are encouraged to apply to take the examination in the final semester of study. Students who pass the examination are certified upon submitting evidence of successful completion of the degree and internship.

Rehabilitation Counseling courses are approved by the Commission on Rehabilitation Counselor Certification (CRCC) toward certification as well as for certification maintenance credits. All inquiries regarding certification and application for same should be directed to:

### **Commission on Rehabilitation Counselor Certification**

UNIVERSITY OF SCRANTON

1835 Rohlwing Road  
Rolling Meadows, IL 60008  
(708) 394-2104

Refer to General Information under the Department of Human Resources for policies and procedures applicable to all Departmental programs.

**Rehabilitation Counseling Curriculum  
Professional Foundations**

(39 credits required)

COUN 501	Counseling Skills
COUN 502	Counseling Theories
COUN 503	Group Counseling and Dynamics
COUN 504	Appraisal Techniques
COUN 505	Research in Counseling
COUN 507	Career Development
COUN 508	Developmental Psychology
COUN 520	Professional Issues: Rehabilitation Counseling
COUN 521	Physical Disabilities
COUN 522	Vocational Aspects of Disability
COUN 591	Practicum: Rehabilitation Counseling
COUN 596	Internship: Rehabilitation Counseling (6-9 credits)
General Electives(9 credits required)	

**Disability and Specialty Populations**

COUN 506	Social and Cultural Issues
COUN 523	Industrial Rehabilitation
COUN 531	Psychology of Adjustment
COUN 560	Addictive Behaviors
COUN 561	Substance Abuse Education
COUN 562	Issues in Substance Abuse
COUN 565	Psychiatric Disorders
COUN 570	Problems of Adolescence
COUN 571	Counseling Issues for Women
COUN 582	Directed Study
COUN 584	Special Topics

**Counseling Systems**

COUN 532	Use of Community Resources
COUN 540	Family Counseling and Therapy
COUN 566	Behavioral Counseling
COUN 567	Health and Behavior

**Clinical Experience**

COUN 594	Practicum: Group Counseling
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Credits for Degree: 48  
Total Specified Credits: 39  
Total Elective Credits: 9

## **SCHOOL COUNSELING**

**Dr. James J. Cunningham, Director**

### **Program Objectives**

The primary objective of the School Counseling program is to prepare students for entry into secondary school counseling positions. It is also designed to prepare students for direct entry or advancement in helping roles in other settings. School counselors provide professional services aimed at meeting the educational, career, personal and social needs of students, both developmentally and in crisis situations.

The program provides the opportunity to acquire academic competencies, refine them through practical experience, and increase self-understanding and self-confidence.

### **The School Counseling Profession**

According to the American School Counselors Association, a division of the American Counseling Association, school counselors are skilled professionals who, as members of the educational team, provide a number of services to various individuals within the school program. Counseling denotes a professional relationship that involves a trained school counselor, a student, and significant others in the student's life. Services provided by the school counseling program are comprehensive and developmental in nature. The school counselor possesses knowledge and skills that enable delivery of an effective program which includes attention to cultural diversities and special needs.

### **Curriculum**

The School Counseling program is a 48 credit curriculum leading to the Masters of Science degree. The curriculum is divided into four areas or sequences: psychological and sociological foundations, counseling, professional orientation, and research. A 3 credit practicum and 6 credit internship experience are among the required courses. Additionally, a student must satisfactorily complete the comprehensive examination and design an appropriate research project.

### **Certification and Accreditations**

The School Counseling program is designed to meet the standards for certification as Secondary School Counselor established by the Pennsylvania Department of Education (PDE). Upon completion of the program, and the awarding of the Master's Degree, students are eligible to receive the Education Specialist I Certificate in Secondary School Counseling. The program is competency based and designed to meet the Standards for Program Approval as outlined by PDE.

The School Counseling program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), a specialized accrediting body recognized by the Council on Postsecondary Accreditation (COPA). This accreditation affords a number of advantages to program graduates. The program is also accredited by the National Council for Accreditation of Teacher Education (NCATE).

Certain students who already possess a master's degree may desire certification only. In those cases, their previous study and experience will be reviewed and a program of study will be recommended. Students completing the "certification only" option must meet substantially equivalent requirements as those students in the M.S. School Counseling program.

Because the School Counseling program is accredited by CACREP, graduates meet all academic requirements for certification as a National Certified Counselor (NCC) as well as a School Counseling Specialty Certification. Graduates may apply to the National Board of Certified Counselors to take the National Counselor Examination upon graduation from the program. Students who pass the certification examination will be granted recognition as an NCC. All inquiries regarding certification as an NCC and application for same should be directed to:

National Board for Certified Counselors, Inc.  
3-D Terrace Way  
Greensboro, NC 27403  
(919) 547-0607

Refer to General Information under the Department of Human Resources for policies and procedures applicable to all Departmental programs.

**School Counseling Curriculum**

Psychological and Sociological Foundations Sequence:  
(9 credits required)

COUN 506*	Social and Cultural Issues
COUN 507*	Career Development
COUN 508*	Developmental Psychology

**Counseling Sequence:**

(24 credits required)

COUN 501*	Counseling Skills
COUN 502*	Counseling Theories
COUN 503*	Group Counseling and Dynamics
COUN 504*	Appraisal Techniques
COUN 540*	Family Counseling and Therapy
COUN 592*	Practicum: School Counseling
COUN 597*	Internship: School Counseling (6 cr.)

**Professional Orientation:**

(6 credits required)

COUN 530*	Professional Issues: School Counseling
COUN 533*	Managing School Counseling Programs

**Research Sequence:**

(3 credits required)

ED 502	Educational Research
COUN 505	Research in Counseling

**Elective(s):**

ED 501	Educational Psychology
COUN 531	Psychology of Adjustment
COUN 532	Use of Community Resources
COUN 560	Addictive Behaviors
COUN 561	Substance Abuse Education
COUN 562	Issues in Substance Abuse
COUN 570	Problems of Adolescence
COUN 571	Counseling Issues for Women
COUN 582	Directed Study
COUN 584	Special Topics

Credits for Degree: 48

\* Required courses. The student's mentor may recommend appropriate deletions or substitutions, based on the evaluation of the student's credentials.

## **COURSE DESCRIPTIONS**

### **Health Administration Courses Credits**

#### **HAD 500. Organization and Administration 3**

The planning, organizing, staffing, influencing, and controlling functions of administration.

#### **HAD 501. Financial Management 3**

The functions of finance including accounting conventions, capital budgeting and financing, revenue and expense budgets, cash flow and cash management.

#### **HAD 502. Health Care Law 3**

Impact of legal factors affecting patient/client care and the operations and administration of health and hospital systems.

#### **HAD 503. Quality Resources Management 3**

An overview of the systems supporting the quality of care effort in the health care environment with a specific focus on methods and strategies for evaluation of quality. Topics include terminology, concepts and strategies, as well as standards, data collection, auditing, committee functions, peer review, utilization review, and regulatory requirements.

#### **HAD 504. Human Resources Administration 3**

Personnel functions of organizations ranging from recruitment and selection to adjustment and training and the legal and regulatory environment affecting personnel operations.

#### **HAD 505. Health Care Statistics 3**

Designed to examine basic statistical techniques which are utilized in analyzing health care data. Topics include probability, sampling, use of central tendency measures, reliability and validity, graphics, data display, frequency distribution, regression analysis, ANOVA, and technical report writing.

#### **HAD 506. Health Policy Management 3**

Introduces health economics in examining major health care financing and delivery issues and the development of policies and programs designed to address them. Topics include models of health economics, cost versus quality, competition, rural health needs, market structure, access and utilization, and national health plans.

#### **HAD 509. Administrative Issues 3**

(Prerequisite, 24 required HRA and/or HAD credits or approval by Program Director.) A case study and role playing seminar in issues and problems in supervision and administration. May be graded satisfactory (pass) and unsatisfactory (fail).

#### **HAD 510. Hospital Administration 3**

Operating and administrative issues and problems in health and hospital systems with emphasis given to hospital operation, organization, and administration.

#### **HAD 511. Ambulatory Care Administration 3**

Application of management and administrative functions to ambulatory care settings with a focus on unique characteristics of the alternative delivery systems in health care.

#### **HAD 512. Medical Practice Administration 3**

Examines factors influencing physician practices and the quality of physician services. Topics include operating and administrative issues including compensation, staffing, billing, collections, reimbursement mechanisms, and governance.

#### **HAD 513. Long Term Care Administration 3**

Operation and administration of long term care facilities. Differences between acute and long term levels of care, types of long term care facilities, and special concerns on the long term care resident.

#### **HAD 515. Marketing Health Services 3**

Principles of marketing and their application including market research, market targets, market segmentation and strategic planning as well as marketing's role in management.

#### **HAD 519. Health Services and Systems 3**



Historical development of health services and systems, health insurance, government regulation, and societal factors affecting the organization and delivery of health services.

**HAD 520. Health Care Accounting 3**

Analysis of cost and budgetary controls; interpretation and utilization of accounting reports and statements; operating accounting measurements; cost-volume-profit analysis; and applying methods of collecting and allocating costs to measure the cost of medical services.

**HAD 521. Advanced Health Care Finance 3**

An in-depth examination of managing the budgeting process, analysis of financial statements, financing decisions, growth and working capital, capital investment decisions, valuation models used in finance, and money management. Examination of payor mix, health care reimbursement systems and applicable state and federal regulations.

**HAD 522. Health Care Operations Management 3**

Takes a systems approach to decision-making in the operations environment emphasizing the interrelationships among operations, finance, accounting, marketing and human resources. Examines productivity and work management, employee performance improvement, and organizational forecasting. Application of behavioral science techniques in an organizational framework. A variety of problems are considered including product mix, product blending, scheduling and production. Management information systems needed in health care operations management is discussed with computer lab applications.

**HAD 580. Internship in Health Administration 3**

(Prerequisite, 21 core credits completed) A 200 clock hour fieldwork placement in a staff or administrative position which is completed during a regular academic session. A semester project and preceptor designation is required.

**HAD 581. Administrative Residency 3-12**

(Prerequisite, 21 core credits completed) A 1,000 hour fieldwork experience in a senior management position. Normally involves exposure to all major operating functions and contacts with department heads, administrative staff and medical staff. Exposure to governing board functions, governmental forces and community influences. The resident is assigned projects of increasing complexity and importance and is expected to have an assigned preceptor. A major project is required. The residency is completed over several semesters.

**HAD 582. Directed Study 3**

Allows the student to pursue an area of interest under the guidance of a faculty person. Approval by the Program Director is required. An administrative fee is charged.

**HAD 583. Externship in Health Administration 1**

(Prerequisite, 9 core credits completed) A 50 clock hour fieldwork experience under supervision of a preceptor which is completed during a regular semester. Allows the student to experience a new health care setting or in-depth study of a division or department within an institution. A written report is required summarizing the fieldwork experience.

**HAD 584. Special Topics 3**

Topics of current interest are offered on a variable basis including, but not restricted to, career development, stress management, and interpersonal negotiations.

**One Credit Special Topics Seminar Courses (HAD 584)**

**Medical Ethics and Social Responsibility 1**

Examines ethical theories with an application to moral issues in health care settings and how decisions made by managers affect other people at a personal, societal, and organizational level. Required for all specializations.

**Governance and Board Effectiveness 1**

Examination of governing structures in health care settings with a particular focus on organizational systems, strategic planning, authority, policy decision making, and accountability. Required for HFM, HRA, HCF specializations.

**Health Care Reimbursement 1**

(Prerequisite, HAD 501) An in-depth understanding and analysis of third party payment systems with a focus on prepaid plans, traditional indemnity programs, medicare and medicaid. Required for HFM specialization.

**Customer Service Management 1**

A marketing course designed to examine customer service management and sales strategies aimed at increasing customer satisfaction and corporate profits. Required for HPP specialization.

**Epidemiology 1**

Examines epidemiological concepts in the utilization of health care services, leading causes of death, acute and chronic diseases, health policy issues, environmental issues, and collection and analysis of epidemiological data in health care planning. Required for HPP specialization.

**Issues in Health Administration 1**

Contemporary issues in health care and health administration related to the changes in the health delivery system resulting from changes in health and hospital reimbursement. Required for HRA specialization.

**Negotiation Skills 1**

This course focuses on developing skills and strategies necessary to negotiate agreements, determining price and terms in purchase arrangements, finalizing and administering contracts, resolving legal conflicts, personal needs and transactions. Required for HRA specialization.

**Time Management 1**

This course examines effective and ineffective time management skills with a focus on developing strategies to manage priorities, delegation, planning and management conflicts.

**Health Care Product Line Management 1**

Examines product differentiation, market needs assessment, increasing market share, measuring outcomes with a focus on organization inputs, thought process and management strategy.

**Managing Health Care Records 1**

This course is designed to help managers address issues in medical records storage, retrieval, auditing, classification and regulatory compliance.

**Stress Management 1**

Etiology of stress and recognition of symptoms. Examination of specific occupational stressors, theories, diagnostic instruments, adaptation, physiology effects with a focus on coping strategies.

**Quality Assurance in Health Care 1**

(Prerequisite, HAD 503) An overview of the systems supporting the quality of care effort in the health care environment. Fundamentals of quality assurance, peer review, utilization review and risk management process.

**Seminar in Health Care Law 1**

(Prerequisite, HAD 502) Application of legal issues to the current health care system problems and the impact current laws have on providers.

**International Health Care 1**

Examines the structure and management of health service systems in developing countries, socioeconomic factors and national health policy. Topics include marketing opportunities, universal health coverage, and emerging trends in the global market of health care.

**Managerial Leadership 1**

Examines the interaction of the manager, organization or system, and employee with emphasis on developing leadership styles and behaviors to increase organizational productivity and worker satisfaction.

**Health Care Auditing 1**

(Prerequisite, HAD 501) An analysis of generally accepted auditing practices in health care institutions with a focus on current laws and regulations, reporting requirements, review of general accounting and operating divisions. The course also focuses on requirements of external auditing agencies and regulations.

**Managed Care 1**

This course examines alternative and new reimbursement programs, prepaid vs. fee-for-service, and popular prepaid health plans such as HMO, PPO and IPA.

**Occupational Medicine 1**

Examines basic models, settings, organizational views, marketing techniques, program structure, regulatory agencies, insurances available, products and services used in occupational medicine and health organizations.

**Physical Medicine & Rehabilitation 1**

This seminar provides an overview of the field of physical medicine and rehabilitation examining administrative, organizational, reimbursement, case management, marketing, legal, and government regulations and issues.

**Strategic Selling in Healthcare 1**

Selling healthcare products and services requires an understanding of marketing concepts and development of sales skills and strategies. The course examines communication skills, sales management, service concepts, buying influences and understanding the exchange relationship with customers.

**National Health Reform 1**

A historical review of the efforts to reform American healthcare with a focus on new proposals for reform, government regulations and laws, and an examination of healthcare systems in other countries.

**HUMAN RESOURCES ADMINISTRATION COURSES**

**HRA 500. Organizational Supervision 3**

The planning, organizing, staffing, influencing, and controlling functions of organizational supervision.

**HRA 501. Program Planning 3**

Strategic, operational, and program planning and outcome evaluation models, strategies, and processes.

**HRA 502. Human Resources Administration 3**

Human resources functions of organizations ranging from recruitment, selection, and orientation to adjustment, training, career development and the legal and regulatory environment affecting personnel in organizations.

**HRA 503. Financial Administration 3**

The functions of finance including accounting conventions, financial statements, capital budgeting and financing, revenue and expense budgets, cash flow and cash management, contract pricing, cost-benefits analysis.

**HRA 505. Statistics and Measurement 3**

Concepts such as central tendency, variability, correlation and regression, reliability and validity, tests of significance, data analysis and presentation, and survey research.

**HRA 509. Administrative Issues 3**

(Prerequisites, 15 core credits and 9 additional credits or approval by Program Director) A case study and role playing seminar in issues and problems in supervision and administration. May be graded satisfactory (pass) and unsatisfactory (fail).

**HRA 520. Leadership 3**

The interaction of the manager, organization, and employee with emphasis on managerial roles and functions, motivational approaches and theories, leadership styles and behaviors, and their relationship to productivity and job satisfaction.

**HRA 521. Work Motivation 3**

Models and theories of work motivation with their implications for managers and organizational characteristics and the design of jobs and work systems. The interrelationships between motivation, productivity and job satisfaction.

**HRA 523. Individual Behavior 3**

Behavior of the individual with emphasis on interviewing, communications, and counseling. Personnel, counseling, and management theories are integrated into workable supervisory models and strategies.

**HRA 524. Group Behavior 3**

An understanding of group behavior and dynamics with emphasis on group membership and leadership, team development, communications, organizational development, decision making, and conflict resolution.

**HRA 525. Productivity Management 3**

The interface of people, technology, and systems is examined with emphasis on increasing organizational effectiveness and efficiency.

**HRA 526. Computer Technology 3**

A "hands-on" introduction to disk operating systems, word processing, and computer applications with emphasis on electronic spreadsheets and database management software.

**HRA 527. Disability and Work 3**

This course focuses on attitudes toward the disabled and their role in society, the work experience of disabled workers, federal and state legislation affecting employment of the disabled, industrial accidents and rehabilitation, job modification and physical plant accessibility.

**HRA 528. Cultural Diversity 3**

A serious challenge facing corporations is managing an increasingly diverse workforce. This course focuses on current social and cultural issues which shape human behavior and greatly affect the workplace. Managing diversity will be addressed with emphasis on understanding multiculturalism, and manager and employee interactions. The students awareness, attitudes, and beliefs will be emphasized.

**HRA 530. Compensation Systems 3**

Concerns all of the ways in which organizations reimburse employees for their effort and the legal and regulatory environment affecting compensation systems.

**HRA 531. Benefits Systems 3**

Concerns all of the ways in which organizations reimburse employees for their effort and the legal and regulatory environment affecting benefits systems.

**HRA 532. Labor Relations 3**

Organized labor in organizations including labor relations, union security and contracts, collective bargaining, grievance processing, and third party resolution.

**HRA 533. Labor Law 3**

The course is designed to familiarize the student with the current regulation of the conflicting interests involved in the organization and exercise of power in labor-management relations in the private sector and with the coordination among arenas for adjudication - courts, administrative agencies, and arbitrators.

**HRA 534. Staff Development 3**

Focuses on planning, implementing and evaluating staff training and development.

**HRA 535. Employee Assistance Programming 3**

Approaches of organizations to promote employee health and to provide assistance to employees with a variety of problems that interfere with productivity.

**HRA 537. Human Resources Policies 3**

Development of specific policy statements and operational procedures related to Equal Employment Opportunity, Civil Rights, Affirmative Action, and related legislation and regulatory acts.

**HRA 538. Health, Safety, and Security 3**

Deals with those organizational activities and the regulatory environment that relate to the occupational health, safety, and security of employees.

**HRA 539. Industrial Rehabilitation 3**

Case management of the industrially injured and the physical, psychological and vocational factors affecting re-employability.

**HRA 580. Internship in Human Resources 3**

(Prerequisites, 15 core credits and 9 additional credits or approval by Program Director) A 200 clock hour placement in a staff or administrative position which is completed during a regular academic session. A semester project may be required. May be graded satisfactory (pass) and unsatisfactory (fail).

**HRA 582. Directed Study 3**

Allows the student to pursue an area of interest under the guidance of a faculty person. Approval by the Program Director is required. An administrative fee is charged.

**HRA 584. Special Topics 3**

Topics of current interest are offered on a variable basis including, but not restricted to, career development, stress management, time management, and negotiation skills. Community Counseling, Rehabilitation Counseling, and

**SCHOOL COUNSELING**

**COUN 500. Professional Issues: Community Counseling 3**

Focuses on the underlying philosophical, historical, professional, legal, and ethical issues involved in the profession of counseling. Designed to acquaint the student with important issues in the field of professional counseling and to help the student establish a sense of professional identity.

**COUN 501. Counseling Skills 3**

This course deals with the application of counseling theory to the practical interview situation. The counseling process and the core elements of a facilitative counseling relationship will be examined. Counselor candidates will begin to develop basic interviewing skills.

**COUN 502. Counseling Theories 3**

Selected theories and techniques of counseling are discussed and examined through a combination of lecture, discussion, and role-playing activities. Emphasis will be upon evaluating the various theories and abstracting parts of these theories into a comprehensive overview of the counseling process. Application to different types of clients is discussed.

**COUN 503. Group Counseling and Dynamics 3**

A basic understanding of group dynamics and behavior is provided. Processes and patterns of interaction are analyzed primarily from the standpoint of their broad educational significance. The selection, evaluation and use of group counseling methods and materials are discussed. Methods of developing and organizing group programs are also presented. Students also participate in a group experience.

**COUN 504. Appraisal Techniques 3**

Emphasis will be placed upon the development of competency in the evaluation, use, and interpretation of tests and inventories used in assessing abilities, achievement, interests and personality. The relationship of informal data to the analysis of individual behavior will be included. Selected instruments will be examined in terms of their design and appropriate utilization.

**COUN 505. Research in Counseling 3**

An introduction to research issues and methodology in the field of counseling. Emphasis is placed on gaining the knowledge necessary to evaluate the conclusions of published research.

**COUN 506. Social and Cultural Issues 3**

Focuses on current social and cultural issues which shape human behavior and affect the practice of counseling. Emphasis is placed on multicultural counseling and issues such as aging, sexuality, AIDS and poverty are addressed.

**COUN 507. Career Development 3**

Psychological and sociological aspects of vocational choice and vocational adjustment will be presented and major theories of career choice and development will be reviewed. Emphasis will be placed upon methods and resources for facilitating career development throughout the life span. Career education, computerized information systems, and decision-making methods will be considered along with innovative approaches for special needs populations.

**COUN 508. Developmental Psychology 3**

This course provides an understanding of developmental psychology, including theoretical approaches and issues relating to physical, cognitive, personality and moral development with particular emphasis on implication for counselors. Both psychological and sociological impacts on development will be overviewed.

**COUN 520. Professional Issues: Rehabilitation Counseling 3**

Identification of the principles underlying rehabilitation, including history, philosophy, structure, and legislation. Study of the rehabilitation process from referral through follow-along activities. Concepts regarding legal issues, professional ethics, consumer advocacy, personal philosophy, community organization and the team concept are presented through a combination of guest lecturers and seminars. Field experience in supported employment with business and industry will be required.

**COUN 521. Physical Disabilities 3**

Unique problems of various disability groups encountered by the counselor. Psychodynamic principles underlying personal adjustment to disability with emphasis on client needs, conflicts, and adjustment mechanisms. Environmental adjustment problems in relation to the nuclear family and community.

**COUN 522. Vocational Aspects of Disability 3**

Theories and models of vocational choice, career development, vocational counseling, and selected vocational assessment measures are presented. An in-depth study of the rehabilitation problems and issues dealt with by the counselor in placing individuals with disabilities is included. Job analysis and industrial visits are required.

**COUN 523. Industrial Rehabilitation 3**

Focuses on case management of the industrially injured. The physical, psychological, and vocational factors affecting employability, principles and practices of private sector rehabilitation, selective job placement and job modification techniques, and vocational testimony are discussed. Case examples are utilized.

**COUN 530. Professional Issues: School Counseling 3**

This is a professional seminar wherein emphasis is placed upon the development of a sensitivity to the educational, sociological and philosophical implications of the counselor's role. This course is designed to provide for a smooth transition to the role of school counselor. Included in the course is a consideration of current ethical, legal, and professional development issues.

**COUN 531. Psychology of Adjustment 3**

This course provides an understanding of adjustive behavior, including the discrimination of normal from abnormal behavior and a thorough understanding of sources of stress and stress management. Special attention is given to adjustment problems of a variety of client populations.

**COUN 532. Use of Community Resources 3**

This course examines in detail the role of the counselor in relation to various agencies in the community. Criteria for referral and the referral process are described in-depth as are the various aspects of collaboration and cooperation between school and community. Existing community resources are examined and representatives of various agencies present information about their services.

**COUN 533. Managing School Counseling Program 3**

This course provides a detailed examination of issues relevant to the organization, administration and coordination of school counseling programs. Topics such as interprofessional collaboration, needs assessment, establishment of program initiatives and evaluation of service will be addressed.

**COUN 540. Family Counseling and Therapy 3**

The systems and communications theories of family therapy will be presented with specific attention to the structural and strategic family therapy approaches. A variety of family therapy techniques and stages will be learned through the use of role play and videotaping. The utilization of family therapy in a variety of settings will be discussed.

**COUN 560. Addictive Behaviors 3**

The problems of drug and alcohol dependency are examined. Treatment approaches and facilities are illustrated and discussed with guest lecturers and seminars. A field trip to a local treatment facility is required.

**COUN 561. Substance Abuse Education 3**

Design, implementation, and evaluation of substance abuse prevention and education programs.

**COUN 562. Issues in Substance Abuse 3**

Legal and health consequences of substance abuse. Special attention is given to the role of the substance abuse specialist in relationship to health care and legal systems.

**COUN 565. Psychiatric Disorders 3**

An examination of the problems associated with mental and emotional disturbances. Emphasis is placed on contemporary modalities of treatment as they relate to community mental health programs. Critical issues in mental health including the dynamics behind these issues will be discussed.

**COUN 566. Behavioral Counseling 3**

The literature on behavior modification and therapy is examined with particular emphasis on the application of techniques to varied clinical populations.

**COUN 567. Health and Behavior 3**

Focuses on stress, the nonspecific response of the body to any demand, which affects thoughts, emotions, and the body. Stress-induced diseases of adaptation (the psychosomatic warning signs such as hypertension, gastrointestinal disorders, and nervous disturbances) along with the stress-related thought disorders and emotional disturbances are examined.

**COUN 570. Problems of Adolescence 3**

This course explores current concerns and challenges confronting adolescents and young adults. Topics will partially be determined by societal trends, and will cover a range of issues such as adolescent suicide, eating disorders, substance abuse and relationship conflicts. Selected issues will be explored from both a psychological and sociological perspective, with emphasis on implications for developing counselor intervention techniques.

**COUN 571. Counseling Issues for Women 3**

A basic understanding of psychological issues currently facing women across the life span will be provided. Sociological concerns will be discussed as well as counselor intervention techniques.

**COUN 582. Directed Study 3**

Allows the student to pursue an area of interest under the guidance of a faculty member.

**COUN 584. Special Topics 3**

Selected topics of current interest in the field of counseling are offered on a variable schedule.

**COUN 590. Practicum: Community Counseling 3**

(Prerequisites, COUN 501, 502, 504) Focuses on necessary and desirable counseling skills, development of counseling relationships, and case conceptualization. Practical application of counseling theories and techniques, psychological testing, and vocational development theory is emphasized. The practicum consists of 100 clock hours and includes direct service work, individual supervision and group supervision.

**COUN 591. Practicum: Rehabilitation Counseling 3**

(Prerequisites, COUN 501, 502, 504) Focuses on necessary and desirable counseling skills, development of counseling relationships, and case conceptualization. Practical application of counseling theories and techniques, psychological testing, and vocational development theory is emphasized. The practicum consists of 100 clock hours and includes direct service work, individual supervision and group supervision.

**COUN 592. Practicum: School Counseling 3**

(Prerequisites, COUN 501, 502, 504) This course consists of the actual counseling of clients under supervision. The primary focus is on necessary and desirable skills, development of counseling, and case conceptualization. Practical application of counseling theories and techniques, psychological testing, and vocational development theory is emphasized. The practicum consists of 100 clock hours and includes direct service work, individual supervision and group supervision.

**COUN 594. Practicum: Group Counseling 3**

(Prerequisite, COUN 503) Focuses on necessary and desirable group counseling skills, the development of group environments and the use of group techniques for generating individual change. An advanced personal group experience under direction of the faculty is an ongoing part of this practicum. Admission by consent of instructor.

**COUN 595. Internship: Community Counseling Variable: 3-6**

(Prerequisite, COUN 590) Full-time placement in a community agency, facility or institution involving 600 clock hours of supervised experience. These assignments may include work in mental health, drug and alcohol, family service, aging, or mental retardation facilities. A minimum of 6 credits is required of all students. Students may register for 3 or 6 credits per academic session after consultation with the Program Director. The Internship must coincide with academic semester.

**COUN 596. Internship: Rehabilitation Counseling Variable: 3-9**

(Prerequisite, COUN 591) Full-time placement in a community agency, facility or institution involving 600 clock hours of supervised experience. These assignments may include work in State-Federal rehabilitation agencies, rehabilitation centers, sheltered workshops, selected mental and retardation programs, supported employment, independent living centers and programs, drug and alcohol programs, and other systems which provide services for State-Federal programs. A minimum of 6 credits is required of all students. Selected students may earn a maximum of 9 internship credits. Students may register for 3, 6, or 9 credits per academic session after consultation with the Program Director. A project is required for all students carrying a total of 9 internship credits. The Internship experience must coincide with academic semester.

**COUN 597. Internship: School Counseling Variable:3-6**

To meet CACREP standards students must complete 600 clock hours of supervised experience. A minimum of 6 credits is required of all students. Students may register for 3 or 6 credits per academic session after consultation with his or her mentor.



## **BUSINESS ADMINISTRATION**

**(MBA)**

**Dr. Joseph R. Zandarski, Director**

### **REQUIREMENTS**

#### **Admission**

The MBA program seeks to attract students of high intellectual caliber and leadership potential, and to qualify them for management positions and/or prepare them for further study. Admission is based on the following criteria: performance on the Graduate Management Admission Test (GMAT), overall grade point average, rank in graduating class, managerial experience and other earned graduate degrees.

Applicants should have a total of at least 975 points based on the formula:  $200 \times$  the undergraduate QPI + GMAT score. Foreign students, whose native language is not English, are required to demonstrate their proficiency in English by achieving a score of at least 500 in the TOEFL.

#### **Graduate Management Admission Test**

This examination is an aptitude test designed to measure certain mental abilities that have been found to be important in the study of business at the graduate level. This test is required of all students.

Application forms for the GMAT may be obtained from the Graduate School Office or by writing to the Educational Testing Service, Box 966, Princeton, New Jersey 08540. Applicants should be registered with ETS to take the exam at least four weeks prior to the testing date. The exam will be administered on this campus on the following dates: October 16, 1993, January 15, 1994, March 19, 1994 and June 18, 1994.

#### **Program of Study**

The MBA curriculum is designed to offer studies in business beyond the undergraduate level and includes Foundation courses, Core courses and Advanced Electives. The MBA degree requires completion of 12 graduate courses (36 credits) for the person with all Foundation courses already completed. Additional study in areas addressed by the Foundation courses may be required to provide appropriate background for students deficient in foundation areas.

Students may specialize in Accounting, Finance, Production and Operations Management, or Marketing, or they may choose the General Area.

#### **Curriculum**

The curriculum is designed to conform to AACSB standards. Courses are given at three levels (Foundation, Core, and Advanced Electives) in several functional areas. Students must rigidly observe the prerequisites for each course.

MBA students may declare a major or specialization in the following areas:

Accounting

Finance

Marketing

Production & Operations Management

A "specialization" consists of a minimum of three advanced courses (9 credits) in a functional area. An additional advanced course (3 credits) may be taken either in that same functional area or in another functional area.

The student may pursue a "double major" by taking the required number of Advanced Electives (3 courses, 9 credits) in each major area.

It is also possible for the student to declare for the MBA: General (i.e., no specific major), thereby maximizing flexibility in the selection of Advanced Electives. The student in the MBA: General program takes four advanced courses (12 credits) selected in any combination from the Advanced Electives.

**Foundation Courses**

The student must complete all of the Foundation courses listed below, in addition to the MBA courses. Foundation courses are ordinarily taken at the undergraduate level. Students with an undergraduate major in Business will ordinarily have completed all of these courses. Students with non-business undergraduate majors will have often completed at least some of the Foundation courses. Any Foundation courses required of a student will be identified in the letter of admission to the program, based on an examination of the student's transcripts.

Foundation courses may be completed either at the University of Scranton or at another accredited institution. There is no limit to the number of Foundation course credits which may be taken at another accredited institution and grades in Foundation courses do not enter into the calculation of the graduate QPI. After admission to the program, Foundation and MBA courses may be taken simultaneously as long as prerequisite requirements are not being violated.

**Foundation Courses**

Areas Covered	U. of S. Undergraduate Courses
Financial and	Acc 253 & 254 OR Acc 210 Managerial Accounting
Mathematics	Math 106 & 107 OR Qms 210
Statistics	Qms 251 & 351 OR Qms 211
Marketing	Mkt 351
Corporation Finance	Fin 351
Micro & Macro Economics	Eco 153 & 154 OR Eco 210
Organizational Theory	Mgt 351
Business Law	Mgt 251

Computer Literacy: Additionally, many courses in the MBA program assume a knowledge of: 1) spreadsheet techniques and applications, 2) introduction to database management, and 3) introduction to VAX. Students lacking computer background should inquire into University of Scranton continuing education courses.

**MBA Core Courses - 8 courses (24 credits)**

Students will complete all of the MBA Core courses listed below. A student with an undergraduate major in a particular area may have the Core course requirement corresponding to that major waived. In that case, the student substitutes any elective course for the Core course which was waived.

**MBA Core Courses**

Acc	502	Accounting for Management
Qms	503	Operations Management
Qms	504	Management Information Systems
Mgt	505	Organizational Behavior
Mkt	506	Marketing Management
Eco	507	Managerial Economics
Fin	508	Financial Management
Mgt	509	Business Policy

**Advanced Electives - 4 courses (12 credits)**

Advanced Elective or "specialization" courses are those numbered 520 and above in the listing of Course Descriptions which follows. The student must take a minimum of four Advanced Elective courses (12 credits), the particular selection of courses depending on the student's area of specialization. Completion of three courses (9 credits) in one area constitutes a specialization. The Core course in a functional area must be completed before taking Advanced Electives in that area.

Students must take at least one international course among their Advanced Electives. Students may choose an international course from the following:

- Acc 525,
- Mgt 556,
- Mkt 563, and Fin 584

The international course may be in the student's area of specialization or in some other area.

**Transfer of Credits**

A maximum of six graduate credits may be transferred to the University of Scranton. For other regulations related to the transfer of graduate credits, see page 17 of this catalog. There is no limit on the number of Foundation course credits which may be taken elsewhere.

**Class Schedules**

All classes are conducted in the evening. Time slots are 4:30 -7:10 and 7:20 - 10:00. During the Fall and Spring semesters each course meets one night per week. Consult literature on Summer and Intersession for class times. Students may attend either on a part-time or full-time basis. Most part-time students take two courses each Fall and Spring term. Most full-time students take 3-4 courses each Fall and Spring term, plus 1-2 courses each Summer and Intersession term.

Most classes are conducted in Hyland Hall, at the corner of Jefferson and Linden Streets.

**Graduate Assistantships**

Approximately 10 graduate assistantships are available for full-time MBA students each year. The assistants may work with faculty in the School of Management, in University Computing Systems, or in the McDade Technology Center. Assistants receive a stipend plus waiver of tuition.

## **COURSE DESCRIPTIONS - MBA**

### **Foundation Courses**

#### **Credits**

#### **Eco 153. Principles of Microeconomics 3(Formerly Eco 152)**

This course centers on the salient characteristics of the modern free enterprise economy. Topics include the operations of the price system as it regulated production, distribution, and consumption, and as it is in turn modified and influenced by private groups and government. International economics is also covered.

#### **Eco 154. Principles of Macroeconomics 3(Formerly Eco 151)**

This course analyzes the determinants of aggregate economic activity. The main areas studied are the monetary and banking system, the consumption and fluctuations of national income and inflation, all as influenced by monetary and fiscal policy.

#### **Eco 210. Essentials of Economic Theory 3**

Intended to provide a foundation in economics for MBA students, this is an intensive course that stresses economic theory and public policy implications. The topics include stabilization of the economy: the price system as it regulates production, distribution and consumption and as it in turn is modified and influenced by private groups and government.

#### **Acc 253. Financial Accounting 3**

A survey of the topics in Acc 251 and 252 Coverage is directed toward the reporting of financial information to interested parties.

#### **Acc 254. Managerial Accounting 3**

(Prerequisite, Acc 253) Accounting techniques required in compiling and interpreting selected data for decision making. Includes such areas as cash and working capital flows, profit planning, statement analysis, capital investment decision, planning and controlling operations.

#### **Acc 210. Survey of Managerial & Financial Accounting 3**

Intended to provide a foundation in accounting for MBA students, this is an intensive course that covers reporting financial information and accounting techniques for decision-making, planning and controlling operations.

#### **Math 106. Quantitative Methods I 3**

Topics from algebra including exponents, radicals, linear and quadratic equations, graphing, functions (including quadratic, exponential and logarithmic) and linear inequalities.

#### **Math 107. Quantitative Methods II 3**

Topics from differential calculus including limits, derivatives, curve sketching, marginal cost functions, and maximum-minimum problems.

#### **Qms 251. Statistics for Business I 3**

(Prerequisite, Math 107 or Qms 210) Detailed coverage of descriptive statistics. An introduction to the elements of probability theory (including Bayes' theorem) and decision theory, and index numbers. The major discrete and continuous probability distributions are covered with an emphasis on business applications. Data analysis will involve the computer software package MINITAB.

#### **Qms 351. Introduction to Management Science 3**

(Prerequisite, Qms 251) A survey of the quantitative techniques which are used by modern managers. Topic coverage focuses on model building, linear programming methods, and simulation. Emphasis is placed on the use and limits of these quantitative methods.

#### **Qms 210. Quantitative Methods I 3**

An introduction to various mathematical tools used in the solution of business problems. Topics include: sets, vectors, matrices, system of linear equations; function; differential calculus of single and several variables, classical optimization and integral calculus, sample space, basic probability concepts, random variables, discrete and continuous probability distributions, sampling.

#### **Qms 211. Quantitative Methods II 3**

(Prerequisite, Math 106 & 107 or Qms 210) An analysis of how statistical and management science techniques assist in managerial decision making. Topics include: interval estimation, testing of hypothesis, simple and multiple regression models, linear programming, model formulation, problem solving, and sensitivity analysis, transportation and assignment problems.

**Mgt 351. Organization and Management 3**

The major concepts of managerial action dealing with planning, organizing, directing and controlling. Knowledge of these key aspects of the management process will provide the student with a framework for decision making.

**Mkt 351. Managerial Marketing 3**

Managerial analysis of the marketing activities in business firms and institutions, including issues of macroenvironment, consumer behavior and international markets. Emphasis on segmenting target markets and developing marketing policies, such as product introduction, promotional campaigns, channels of distribution and pricing tactics.

**Fin 351. Introduction to Finance 3**

(Prerequisite, Acc 210 & Eco 153 or Eco 210) This course introduces the business student to the field of finance. It serves as the foundation course for financial principles used in both financial management and investment courses. Topics include time value of money, risk analysis, basic operation of the capital markets, current assets and liability analysis, and introduction to the topics of capital budgeting and cost of capital calculation.

**Mgt 251. Legal Environment of Business 3**

The nature, sources, formation, and applications of law. The judicial function, the court system, litigation and other methods of resolving disputes, legislative law from judicial decisions, law by administrative agencies, regulation of business activity, antitrust law, consumer protection, environment and pollution control.

**M.B.A. CORE COURSES**

**Acc 502. Accounting for Management 3**

(Prerequisite, Acc 210 or Acc 252 or Acc 254) Emphasis is placed on ways to use, analyze, and interpret accounting data in planning and controlling organizational activities. Selected techniques required for analysis and managerial decision making are introduced.

**Qms 503. Operations Management 3**

(Prerequisite, Qms 251 & Qms 351, or Qms 211) This course is designed to emphasize the strategic importance of operations management to the overall performance of the enterprise. Topics include: product and process planning and design, forecasting, facility location and layout, production staffing, job design and work measurement, capacity planning, aggregate planning, inventory management, requirements planning, operations scheduling, Just-in-time, and quality assurance.

**Qms 504. Management Information System 3**

This course introduces the student to the conceptual basis and practical design, development, implementation, and management of information systems. Topics covered include: information systems technology, analysis, design, development and management. Software packages are used to develop applications in accounting, finance, management, marketing and production. See note regarding background required on Computer Literacy on page 74.

**Mgt 505. Organizational Behavior 3**

(Prerequisite, Mgt 351 or equivalent) A primary goal of an organization is the improved performance of individuals and work groups within the organization. Organizational behavior is the field of study that investigates and explains those concepts or theories which are vital in current management practices dealing with job performance.

**Mkt 506. Marketing Management 3**

(Prerequisite, Mkt 351) Analysis of the conceptual and tactical mechanisms of marketing management with emphasis on how today's firms and institutions mobilize their resources to achieve market penetration, sales volume, and satisfactory profits. Marketing planning with control and implementation of strategies as major aspects of decision making. Also, exploring market

opportunities and formulation of marketing policies (marketing mix) exemplified through case studies.

**Eco 507. Managerial Economics 3**

(Prerequisite, Eco 153 & 154 or Eco 210) An intensive study of the problems of value and costs, including demand theory, empirical demand analysis, production theory, cost theory linear programming applications in resource allocation and cost analysis, empirical cost analysis, market structure and pricing theory, pricing practice and the role of government in the private economy.

**Fin 508. Financial Management 3**

(Prerequisite, Fin 351) Principles of policy formation in the modern corporation; the institutions, instruments and customary procedures that influence the determination of corporate policy; and the reasons for choices in seeking solutions to specific financial problems. A case approach will be utilized to cover problems of working capital management, capital budgeting, and capital structure. Computerized approaches to financial problems will be emphasized.

**Mgt 509. Business Policy 3**

(Prerequisite, all other core courses) This course introduces the student to methodologies for examining strategic policy issues within organizations, primarily business organizations. In providing the student with opportunities to devise policy solutions, the course draws on all of the functional areas in the MBA curriculum. The course also provides the student with the opportunity to present and defend policy solutions.

**ADVANCED ELECTIVES**

**Accounting**

**Acc 521. Auditing 3**

(Prerequisite, Acc 502) Audit of income statement and selected balance sheet items. The audit report, internal auditing, ethics of the profession. Audit case problems. Admission with consent of instructor.

**Acc 522. Federal Taxation 3**

(Prerequisite, Acc 502) Corporation Income Taxes, with special emphasis on current Internal Revenue Service regulations. Partnerships included. Admission with consent of instructor.

**Acc 523. Advanced Managerial Accounting 3**

(Prerequisite, Acc 502) Decision models including pricing factor and product combinations. Examination of the problems of control in organization including transfer pricing and performance evaluation.

**Acc 524. Advanced Financial Accounting 3**

(Prerequisite, Acc 502) Critical examination of the treatment of major items in the financial statements using conventional (historical cost) accounting. Examination of selected topics including: consolidations, accounting for government and non-profit institutions.

**Acc 525. International Accounting 3**

(Prerequisite, Acc 502) Accounting for international business; accounting control for the multinational enterprise, global accounting theory and practice, social accounting concepts, tax aspects of foreign transactions, and international financial reporting to investors.

**Acc 529. Special Topics in Accounting 3**

**Production and Operations Management**

**Qms 541. Advanced Production and Operations Management 3(Prerequisite, Qms 503)**

The design and modeling of production and inventory management systems. Topics include facility design, aggregate and hierarchical production planning, inventory management, and operations scheduling and analysis. Appropriate software packages will be used to provide hands on experience in designing, analyzing, and evaluating manufacturing operations.

**Qms 542. Applied Operations Research 3**

(Prerequisite, Qms 503) A study of how operations research models may be used to solve practical decision problems in the business sector. Techniques studied will be chosen from: linear programming, goal programming, integer programming, dynamic programming, network theory,

Markov processes, queuing theory and decision analysis. The course will emphasize problem formulation, model management and interpretation; both exact and heuristic algorithms will be considered.

**Qms 544. Business Forecasting Models 3**

(Prerequisite, Qms 503 or consent of instructor) This course deals with the study of quantitative forecasting techniques which include exponential smoothing, classical decomposition, regression analysis and Box-Jenkins (ARIMA) methodology, as well as qualitative (judgmental) methods. The emphasis is on their practical application in various business forecasting situations. Issues important in the selection of appropriate forecasting methodology such as data requirements, forecast accuracy, time horizon and cost are discussed.

**Qms 546. Business Database Management Systems 3**

(Prerequisite, Qms 504) This course focuses on the overall structure of database management applications with emphasis on the relational approach. Topics covered include: database design, data dictionaries, query system, methods of storage and access, data definition and manipulation, data security and integrity, recovery and concurrence, distributed database management. Students will learn to design and implement database applications using micro and/or mainframe computers.

**Qms 548. Business Decision Support Systems 3**

(Prerequisite, Qms 503 & 504) This course introduces the student to the conceptual foundations, technological components, and organizational processes involved in building interaction computer-based systems to help decision makers solve relatively unstructured problems. Topics include: Decision Support Systems (DSS) and Expert Systems (ES) Architecture, Tools for Building DSS and ES, Development of Decision Support and Expert Systems, and Applications using DSS Generators and ES Shells.

**Qms 549. Special Topics in POM 3**

**Management**

**Mgt 553. Organizational Theory 3**

(Prerequisite, Mgt 505) Study of the forces both within and outside the organization that determine the structure and processes of an organization. Topics to be covered will include technology and size influences, conflict, boundary roles, matrix structure, political factors, and sociotechnical systems.

**Mgt 554. Group Dynamics 3**

(Prerequisite, Mgt 505) Designing individual and group behavior systems, contemporary topics on designing organizational systems for better utilization of human resources.

**Mgt 555. Organization Power & Politics 3**

(Prerequisite, Mgt 505) This course examines power and politics in organizations from theoretical, applied, and research perspectives.

**Mgt 556. International Management 3**

(Prerequisite, Mgt 505) A basic graduate course in international management, this course focuses on the set of strategy decisions facing the multinational corporation. It will also focus on the external and internal variables that influence the choice and outcome of strategics. The specific strategies covered are entry/ownership, sourcing, control, marketing, financial, human resources, and public affairs. Other topics include the division of labor and resource allocation on a worldwide basis, cultural issues, and issues of nationalism.

**Mgt 559. Special Topics in Management 3**

**Marketing**

**Mkt 561. Marketing Research 3**

(Prerequisite, Mkt 506) Marketing Research is studied as the basis for decision making, for analysis of markets, and for evaluation of marketing strategies through systematic gathering of information and evidence. The foundations and methodology of research including behavioral

sciences and multivariate analysis are discussed. Research projects are conducted by the class participants and research applications to marketing problems are exemplified.

**Mkt 562. Promotion Management: Advertising and Selling 3**

(Prerequisite, Mkt 506) A study of the promotion activities of business firms and institutions; analysis of audience behavior and motivation; communication through mass media and person to person interaction including advertising, personal selling, sales promotion, and publicity; the development of an integrated promotional strategy to generate sales and profits through informing, persuading, and activating middlemen and consumers.

**Mkt 563. International Marketing 3**

(Prerequisite, Mkt 506) A study, of the managerial problems in international marketing covering factors affecting international markets in different cultural areas of the world.

**Mkt 564. Consumer Behavior 3**

(Prerequisite, Mkt 506) Study of the basic factors influencing consumer behavior with emphasis on managerial use of consumer decision making models from both economics and the social sciences.

**Mkt 569. Special Topics in Marketing 3**

**Finance**

**Fin 581. Financial Institutions 3**

(Prerequisite, Fin 508) A detailed survey, of the more important financial institutions of the United States in order to determine their functions and interrelations in the national economy. Monetary and fiscal policy. Material covered will assist the student to better understand the economic, social and political scene in America.

**Fin 582. Advanced Financial Management 3**

(Prerequisite, Fin 508) A case oriented approach to financial decision making with emphasis on current management, capital budgeting, capital structure, mergers and bankruptcy.

**Fin 583. Investment Analysis 3**

(Prerequisite, Fin 508) The investment markets and financial analysis of various types of investments including industrial, railroad, utility, financial institution, real estate, government, municipal and foreign securities; the mathematics and mechanics of investments.

**Fin 584. International Finance 3**

(Prerequisite, Fin 508) A detailed survey of the financial decision process in multinational corporations. Topics include, foreign exchange risks, foreign investment decisions, positioning of funds, international banking, import and export financing, multinational accounting rules and tax planning.

**Fin 589. Special Topics in Finance 3**



## DEPARTMENT OF ENGLISH

Dr. Francis X. Jordan, Chair and Director of Graduate Program

### Departmental Requirements

The applicant must, prior to the start of his/her graduate program, possess a baccalaureate degree; and must have completed on the undergraduate upper-division level a minimum of eighteen semester hours in English; and must, further, have a QPI of not less than 2.75 (of a possible 4.0) in his/her upper-division courses in English. Applicants to the master's program in English must submit a writing sample on a literary subject. It must be at least five pages in length and may be a paper completed as part of the applicant's undergraduate or other educational experience. Applicants are urged to submit scores from the GRE General Test and Subject Test in Literature. For certain applicants, the Director of the Graduate Program in English may require submission of these scores. International students must have a score of at least 550 on the TOEFL.

### Master of Arts in English

Candidates for the degree of Master of Arts in English may select a thesis or non-thesis program.

**M.A. Thesis Program** The M.A. thesis program will require the student to complete successfully 27 credits in courses in English, as outlined below; pass an oral exam; and present a critical study (thesis) of no fewer than 12,000 words. The comprehensive examination for the M.A. (thesis) will be an oral examination, in which the candidate will defend his/her thesis and be questioned on literary material from the area of his/her thesis and two other major areas of English or American literature. The specific areas for each student's oral examination will be established by the student and his/her mentor, based on the thesis topic. A summary description of the procedure to be followed in the preparation and defense of theses can be obtained from the secretary of the English Department.

The only specific course requirement for the M.A. (thesis and non-thesis) is English 500: Introduction to Research (three credits). Students must register for this course the first semester it is offered after they have been accepted into the program. The remaining 24 hours of credit for the M.A. (thesis) are to be taken in courses approved by the student's mentor. These courses should be so chosen as to combine student interest in certain periods and genres, and coverage, both in range and depth, of the fields of British and American literature. The 33 credit hours necessary for the M.A. (thesis) are completed with the six hours granted for the thesis.

**M.A. Non-Thesis Program** The M.A. non-thesis program requires the student to complete successfully 33 credits in courses in English, including English 500, and pass a written comprehensive examination. The examination, which is given several times a year, as scheduled by the Graduate Office, will be composed of three sections focusing on a single literary period, a specific genre over several periods, and one major figure. Students will choose their own periods, genres and major figures from lists of acceptable choices provided by the department, making sure that there is no overlap between the literary period and the major figure. Students should consult with the department chair after completing nine credits of graduate study in order to begin preparing for the exam. They should also apply at the Graduate Office to take the examination sometime during the year in which they expect to complete their degree requirements.

### Master of Science in Secondary Education: English

For a Master of Science in Secondary Education with specialization in English, kindly refer to the criteria outlined by the Department of Education, Secondary Education for application procedures and degree requirements.

## **COURSE DESCRIPTIONS - ENGLISH**

### **Credits**

#### **Engl 500. Introduction to Research 3**

Course familiarizes students with the important research tools and methods of the discipline, as well as with more specialized references and procedures in the students' particular areas and periods of interest. Reading and projects prepare students for large research projects, including the M.A. thesis and doctoral dissertation.

#### **Engl 501. History of the English Language 3**

An investigation of the principal phonemic, morphological, and orthographic changes governing the evolution of the English language from Anglo-Saxon times to the present; although the approach will be historical, due emphasis will be accorded the study of our language as a living cultural entity.

#### **Engl 505. Modern Grammar in the English Curriculum 3**

The theory of transformational grammar, studied against such other theories as prescriptivism, structuralism and case grammar, in practical application to the high school and college English curriculum.

#### **Engl 506. Composition in the English Curriculum 3**

Designed for both high school and junior college English teachers, this course will review traditional composition programs and approaches, explore innovative programs and methods, and consider the place of composition in a variety of curricula.

#### **Engl 507. Literature in the English Curriculum 3**

In considering strategies for selecting, organizing, and teaching high school literature, this course will explore the central question of what a sequential, well-balanced, efficient program in literature should consist of. It will include adolescent literature, themes, genres, socio-political movements, thematic and short courses, autotutorial devices or systems, and inquiry methods.

#### **Engl 511. Medieval English Literature 3**

A critical study of the major literary works in English of the Middle Ages, from Beowulf through Everyman.

#### **Engl 512. Introduction to Late Medieval Drama 3**

An introduction to the drama which flourished in the late fourteenth and fifteenth-century: the Corpus Christi cycle, morality plays such as Everyman, Mankind, Castle of Perseverance, and the saint's play. (Individual plays studied will change from year to year.)

#### **Engl 514. Chaucer I: The Early Poems 3**

Close study of Chaucer's poetry other than The Canterbury Tales with particular emphasis on Troilus and Criseyde.

#### **Engl 515. Chaucer II: The Canterbury Tales 3**

A detailed examination of the general structure of The Canterbury Tales and of the individual tales, with attention to specialized critical tools and techniques, and to various critical approaches to Chaucer.

#### **Engl 520. Shakespeare and Other Elizabethan Dramatists I 3**

A careful study of Shakespeare's plays written before 1600, together with selected plays of Marlowe, Kyd, Greene, and Peele.

#### **Engl 521. Shakespeare and Other Elizabethan Dramatists II 3**

A careful study of Shakespeare's plays written after 1600, together with selected plays by Jonson, Chapman, Dekker, Beaumont, Fletcher, Tourneur, Marston, Middleton, Massinger, and Ford.

#### **Engl 531. Sixteenth-Century Literature 3**

Poetry and prose of the English Renaissance, with special attention to the new birth of poetic form; examination in-depth of the great poetic achievements of Sidney, Spenser, and Shakespeare.

#### **Engl 532. Seventeenth-Century Literature 3**

A study in-depth of the major British authors of the seventeenth century other than Milton.

**Engl 534. Milton 3**

An appreciation of John Milton as poet, critic, and innovator, together with a critical survey of the poet's sources, poetical works, and literary forms.

**Engl 537. Restoration and Eighteenth-Century Drama 3**

An examination of the major developments in comedy, tragedy, and experimental dramatic forms on the English public stage between 1660 and approximately 1775. The reading list will include works by Wycherley, Etherege, Behn, Dryden, Otway, Congreve, Rowe, Addison, Steele, Gay, Lillo, Fielding, Sheridan, Goldsmith, and others.

**Engl 538. Restoration and Eighteenth-Century Poetry 3**

An examination of the major developments in English poetry between 1660 and 1780, excluding Milton. The reading list will include works by Rochester, Dryden, Behn, Pope, Gay, Johnson, Gray, Collins, and Goldsmith, as well as lesser-known figures from this period.

**Engl 539. The Eighteenth-Century British Novel 3**

An examination of the sources, primary texts, and sub-genres which combine to define the English novel and its audience during the eighteenth century. The reading list may include a few important precursors of the new form, as well as examples of realism, gothicism and sentimentalism. The specific works on the reading list will change each time the course is offered, but the following authors will be included with some regularity: Behn, Swift, Defoe, Richardson, Fielding, Smollett, Sterne, Radcliffe, Burney, Godwin, and Shelley.

**Engl 540. Romantic Poetry and Criticism 3**

An examination of the poetry and critical writings of the major romantic poets. The aim is not an exhaustive survey but an intensive study of several of the following: Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.

**Engl 543. Victorian Poetry and Non-Fictional Prose 3**

An examination of Victorian poetry and non-fictional prose in the light of its social, political, and intellectual backgrounds. The aim is not an exhaustive survey but an intensive study of several of the following: Tennyson, Browning, Arnold, and Pre-Raphaelites, Carlyle, Newman, Ruskin and Pater.

**Engl 544. The Nineteenth-Century British Novel 3**

Readings in selected Victorian novels in the light of the social, political, and intellectual backgrounds of the age, with emphasis on the artistic development of the novel.

**Engl 550. Studies in Modern Poetry 3**

An intensive study of trends and techniques in such major twentieth-century poets as Hopkins, Yeats, Auden, Dylan Thomas, Frost, Stevens and Eliot.

**Engl 552. The Twentieth-Century British Novel 3**

Readings of selected twentieth-century novels in the light of the social, political, and intellectual background of the times. Such major British novelists of the century as Conrad, Joyce, D.H. Lawrence, E.M. Forster, Greene, Waugh, Virginia Woolf, and Muriel Spark will be included.

**Engl 554. Modern Drama 3**

The development of drama (Continental, British, Irish, and American) from Ibsen to the present day. Among playwrights whose works will be read and studied are: Ibsen, Strindberg, Chekhov, Synge, Yeats, O'Casey, Shaw, Osborne, Pinter, Brecht, Anouilh, Ionesco, Beckett, O'Neil, Anderson, Wilder, Inge, and Albee.

**Engl 556. American Romanticism and Transcendentalism 3**

Studies in the major works of Cooper, Poe, Hawthorne, Emerson, and Melville.

**Engl 557. American Realism and Naturalism 3**

Studies in the major works of Twain, Crane, Norris, James, and Howells.

**Engl 559. The Twentieth-Century American Novel 3**

Modern American novels and short stories. The period from 1900 to the present will be covered, emphasizing such major figures as Fitzgerald, Hemingway, Faulkner, Steinbeck, and Barth.

**Engl 564. Studies in Literary Theory 3**

## UNIVERSITY OF SCRANTON

This course analyzes the derivation and methodology of the theories underlying contemporary practice. For historical perspective, we turn to Plato and Aristotle, and then to a survey of other major classical, renaissance, enlightenment, and 19th-century sources. Thence we examine 20th-century critical theories, namely: psychoanalysis, Marxism, feminism, formalism (new criticism), reader-response, structuralism, deconstruction, and cultural materialism (new historicism). (N.B. Each of the following seminars will involve concentrated study of a single literary figure, movement, or genre. The particular subject of each seminar will vary each year.)

**Engl 570. Seminar: Special Studies in English Literature 3**

**Engl 571. Seminar: Special Studies in American Literature 3**

**Engl 572. Seminar: Special Studies in Comparative Literature 3**

**Engl 580. Afro-American Literature 3**

An introductory survey of Afro-American literature, stressing an in-depth examination of the works of Afro-Americans in poetry, song, drama, the novel, the essay, and the slave narrative. Emphasis will be placed on the relationship between the Afro-American experience and the African experience. The period covered is from the founding of the American nation to the present day.

**Engl 598. Directed Study 3**

**Engl 599. English: Thesis 3-6**

Students working on a thesis register for this course. Six thesis credits are normally required for M.A. students. These may be taken all in one term or in two different terms.

## DEPARTMENT OF HISTORY

**Dr. Michael D. DeMichele, Chair**

Dr. Ray Champagne, Director of Graduate Program

### **Department Requirements**

The applicant must possess the baccalaureate degree and should as an undergraduate have completed a minimum of 18 upper-division semester hours in History. Applicants should have a QPI of not less than 2.75 (based on 4.0 scale) in all his/her undergraduate history courses or have attained an acceptable score on the General Test of the GRE or an equivalent score in other nationally recognized tests. In the event that significant gaps occur in the student's undergraduate program, additional undergraduate history courses may be specified by the mentor.

### **Master Of Arts In History**

**Course Requirements:** The Master of Arts in History requires successful completion of 30 graduate credits. The only specific course requirement is History 500: Science and Methods of Historians.

**A Thesis or Non-Thesis Program:** A thesis or non-thesis program for the M.A. degree is the option of the student. Both the thesis and non-thesis programs entail successful completion of 30 graduate credits, and a successful comprehensive examination in the field. The thesis program, however, will require the student to complete successfully a total of 24 course credits and to present an acceptable thesis for which six credits will be granted. The thesis topic must be approved by the student's mentor under whose active direction the thesis shall be satisfactorily completed. The thesis must be approved by a faculty panel assigned by the Chair of the Department.

**Comprehensive Examination:** All candidates for the comprehensive examination in History must have the approval of the mentor, and have completed at least 24 graduate credits in the program. Ordinarily, the comprehensive examination will be a written three hour exam. The exam will be graded by the appropriate faculty members and will be designed to test both specific content of courses taken and a comprehensive understanding of the history of the United States.

**Mentor: Upon admission to the Graduate School in History, the student will be assigned a mentor who will advise the student of all course work and who, if the program includes a thesis, will direct the student's research and writing of the thesis.**

### **Four Year B.A./M.A Degree Program**

The Department of History and Political Science offers a special program that enables the qualified student to obtain both a Bachelor's and Master's Degree within four calendar years by accelerating the student's course of study through judicious use of Intersession and Summer School, and by allowing twelve (12) graduate history credits to be applied to both the B.A. and M.A. degree programs. Students may be conditionally admitted to the program upon matriculation at the University and after approval by the Department and the Deans of the College of Arts and Sciences and the Graduate School. Students already enrolled at the University and transfer students may enter the program on a conditional basis up to the end of the second year of studies with the same approval mentioned above.

Ordinarily, a student must have a QPI of 3.2 in all courses and have a letter of recommendation from one of his/her history professors in order to be admitted to the four year B.A./M.A. program. Students enrolled in the four year B.A./M.A. Degree Program are required to complete all other degree requirements specified in the catalogs of both the College of Arts and Sciences and the Graduate School of the University of Scranton.

## **COURSE DESCRIPTIONS - HISTORY**

### **Credits**

#### **Hist 500. Science and Methods of Historians 3**

A study of application of scientific methodology required for gathering, assessing, synthesizing and documenting historical information with special attention given to American historians and historiography.

#### **Hist 505. America: From Province to Nation 3**

An examination of selected topics pertaining to the political, diplomatic and social history of the American colonies.

#### **Hist 510. The Shaping of the American Nation 3**

An examination of selected topics in the period from the adoption of the Federal Constitution to the retirement of Andrew Jackson.

#### **Hist 512. The American Constitution 3**

Emphasis on the basics of American constitutionalism, the development of the judicial process, the problems of civil liberties and religious freedom.

#### **Hist 515. America's Immigration Experience 3**

An in-depth look at the immigration and Americanization of selected ethnic groups in U.S. Society.

#### **Hist 518. The Local Ethnic Experience 3**

Immigration to America, early ethnic groups in Northeastern Pennsylvania, coal mining in the anthracite belt.

#### **Hist 520. American Expansionism 3**

A study of the expansionist instinct in U.S. foreign policy from the Revolutionary days to modern times.

#### **Hist 525. American Foreign Policy in the Nuclear Age 3**

Cold War diplomacy since 1945 vis-a-vis the USSR and China; managing the Japanese and European relationship; Middle East and Latin American conflicts.

#### **Hist 530. America's Response to Industrialism 3**

A study of the Civil War and Reconstruction, industrial growth and conflict, the American Black, the reform impulses and the transformation of national politics: Bryan, Roosevelt and Wilson.

#### **Hist 535. Twentieth-Century America 3**

A study of the Great War, the Twenties, the Depression, World War II, the Cold War, and the emergence and erosion of national consensus.

#### **Hist 538. Recent U.S. History 3**

A study of American society during the past thirty years. Focus on such topics as the Cold War, the Vietnam War, the student counter-culture movement, Watergate, and the conservative response to these developments.

#### **Hist 545. Pivotal Elections in American History 3**

An examination of the more significant and interesting Presidential elections in the history of the United States.

#### **Hist 546. History of American West 3**

A study of the acquisition, settlement, and development of the Trans-Mississippi West, including the mining, cattlemen's and farmers' frontiers; Indian removal; and Manifest Destiny in Texas and Oregon. Particular attention will be paid to the importance of the American West in the development of American culture.

#### **Hist 548. Seminar in American History 3**

An analysis of selected topics in American history from the Colonial era to the present.

#### **Hist 550. The British Experience 3**

A study and interpretation of the enduring political, cultural, and social heritage of Britain from the Age of Victoria to the end of the Empire.

**Hist 555. The Soviet Achievement 3**

An analysis of the social, cultural, economic and political accomplishments of the U.S.S.R.

**Hist 560. Modern Germany 3**

A detailed study of modern Germany from the formation of the German Empire to the demise of Adolf Hitler and the reconstruction of Germany after World War II.

**Hist 565. French Revolution and Napoleon 3**

A study of the causes and results of the French Revolution and the Age of Napoleon and its legacy.

**Hist 570. Anatomy of Modern Europe 3**

An analysis of the major institutions, problems and accomplishments of Europe since the end of World War II.

**Hist 575. Military Power in the 20th Century 3**

A study of the role of military force in international relations and the impact of the military and war upon domestic society in modern times.

**Hist 578. Seminar in European History 3**

An analysis of selected topics in European History from the nineteenth century to the present.

**Hist 598. Directed Study 3**

Allows the student to pursue a topic of special interest under the direction of a faculty member.

**Hist 599. History: Thesis 6** Students working on a thesis register for this course.

## DEPARTMENT OF CHEMISTRY

**Dr. Joseph H. Driesbach, Chair**

Dr. Christopher Baumann, Director of Graduate Programs

### **Chemistry and Biochemistry Programs**

Master of Arts programs are offered in two major fields: Chemistry and Biochemistry. The M.A. is a thesis degree that is directed toward subsequent work for the doctoral degree and an important preparation for research activity in industry or elsewhere. Its requirements include 30 credit hours of classroom courses and independent research under the direction of a faculty member. Usually 6 of the 30 credits are devoted to the thesis research.

Master of Science programs are offered in Chemistry and Biochemistry. The M.S. is usually a terminal degree intended to upgrade the student's professional competency and capabilities for work in industry or secondary education. Thirty (30) credit hours of classroom work are required.

Students may also pursue a M.S. in Secondary Education with a content option in Chemistry. See pages 26-28 for details.

**Admission Requirements:** Applicants for the Master of Arts or Master of Science programs in chemistry or biochemistry must possess, or be in close proximity to possessing, a baccalaureate degree which includes full-year courses in General and Analytical Chemistry, Organic Chemistry, Physical or Biophysical Chemistry, General Physics and Mathematics through Integral Calculus. Applicants for the Master's degree in Secondary Education that is correlated with Chemistry must have, beside the baccalaureate degree, at least a full year of General and Analytical Chemistry, College Physics and Mathematics. A QPI of 2.75 is required both overall and in the science courses.

Certain of these requirements may be waived at the discretion of the Department Chair. Students with limited undergraduate course deficiencies may be admitted with the approval of the Chemistry faculty on condition that such deficiencies are corrected concurrently with their initial graduate course.

**Course Requirements:** Core courses are those, within each program, that are required of all candidates. Since these are the fundamental courses that form the basis of the comprehensive examinations, it is essential that they be taken first in any candidate's program before any electives.

### **Core courses for the M.A. and M.S. degrees in Chemistry are:**

Chem 530	Structural Organic Chemistry
Chem 531	Mechanistic Organic Chemistry
Chem 540	Advanced Inorganic Chemistry
Chem 562	Advanced Quantum Chemistry
Chem 563	Advanced Thermodynamics and Equilibrium
Chem 570	Advanced Analytical Chemistry
Chem 571*	Analytical Methods

\*Will be waived for those individuals who have previously taken an equivalent instrumental analysis laboratory course.

### **Core courses for the M.A. and M.S. degrees in Biochemistry are:**

Chem 531	Mechanistic Organic Chemistry
Chem 550	Biochemical Structure and Function
Chem 551	Biocatalysis and Metabolism
Chem 563	Advanced Thermodynamics and Equilibrium
Chem 570	Advanced Analytical Chemistry
Chem 571*	Analytical Methods

\*Will be waived for those individuals who have previously taken an equivalent instrumental analysis laboratory course. With permission, Chem 560-561 may be substituted for Chem 563 for those with a less complete background.



**Core courses for the M.S. in Secondary Education with a content option in Chemistry are:**

Chem 531	Mechanistic Organic Chemistry
Chem 540	Advanced Inorganic Chemistry
Chem 560	Introduction to Thermodynamics
Chem 561	Introduction to Quantum Chemistry
Chem 570	Advanced Analytical Chemistry

Elective courses beyond the Core courses will be chosen from among the graduate courses offered by the Chemistry Department. In the Master's degree program in Secondary Education that is correlated with Chemistry, the mentor may allow students to fulfill their requirements with other courses in Chemistry.

**Clinical Chemistry Program**

The Clinical Chemistry program is designed to provide advanced scientific and management training to prepare participants for leadership positions in hospital, industrial, or other private analytical laboratories. The program has two tracks: Research and Administration. The Research track is designed for students who wish to emphasize development of research capabilities. This track requires completion of a research thesis and leads to the M.A. degree. The Administration track is designed for students who wish to combine their scientific training with some exposure to matters of administration in health/medical/laboratory environments; this track leads to the M.S. degree. Both tracks require a minimum of 36 graduate credits.

**Admission Requirements:** Applicants for the program will normally have a Bachelor's degree in Chemistry, Biochemistry, Biology, or Medical Technology. Other undergraduate degrees may be acceptable if appropriate background courses in the sciences have been taken. The undergraduate transcripts of all applicants will be examined to determine if there are any deficiencies in background courses.

An undergraduate QPI of at least 2.75, for all courses combined as well as for science courses, is expected for admission to the program.

**Course Requirements:** The following courses, 27 credits in all, are required of all students in the Clinical Chemistry program:

Chem 531	Mechanistic Organic Chemistry
Chem 550	Biochemical Structure and Function
Chem 551	Biocatalysis and Metabolism
Chem 554	Biochemistry of Disease
Chem 555	Chemical Toxicology
Chem 556	Clinical Quality Control
Chem 565	Instrumental Electronics
Chem 570	Advanced Analytical Chemistry
Chem 571	Analytical Methods

While registered for Chem 556, the student will participate in a clinical affiliation. This course will ordinarily be taken as the last course in the student's program.

Students take 9 elective credits. Electives may be taken from any of the following categories: Thesis: Students in the Research track will take 2-6 credits of thesis work (Chem 599). The number of thesis credits will be determined in consultation with the student's mentor, depending on the scope of the thesis project. Normally, six thesis credits are devoted to the project. Students in the Administration track should take HAD 500, Organization and Administration, plus two other courses from among the following Health Administration (HAD) or Human Resources Administration (HRA) programs:

HAD 502	Health Care Law
HAD 506	Health Policy Management
HAD 510	Hospital Administration
HRA 521	Work Motivation
HRA 534	Staff Development

Students should consult with the Director of the HRA program, as well as with their mentor, regarding specifics of these courses.

Other Chemistry Courses: Students may select other graduate courses offered by the Chemistry Department, in consultation with their mentor, to complete their electives. Of special interest in this category are the following: Chem 553, Enzymology and Chem 572, Applied Spectroscopy.

### **Comprehensive Examinations**

Candidates for the M.A. or M.S. degrees in Chemistry, Biochemistry, and Clinical Chemistry must pass a comprehensive examination, based on the core courses required in the respective programs. The comprehensive examination is normally taken after the core courses have been completed. Students who do not pass the comprehensive exam on the first attempt will be allowed to take the entire examination a second time. Students failing the comprehensive exam for the second time will not be considered for the degree.

### **Thesis**

M.A. candidates in Chemistry, Biochemistry, and Clinical Chemistry are required to do independent research and write a thesis.

Early in the program, each student should choose a research director, decide with him/her on a project. Then two readers should be chosen and a proposal prepared for the research project. This proposal should be presented to the thesis committee consisting of the research director and the two readers. When the project proposal is approved the student should progressively carry out the necessary laboratory experimentation. When the work is complete, it must be reported in a thesis which is publicly defended before the Chemistry Department. The credits awarded for the thesis (Chem 599) can vary from 2 to 6, depending on the needs of the student.

### **Graduate Assistantships**

Each year approximately 20 students in the Chemistry programs hold graduate assistantships. Some of these are in the Chemistry department, some are in other departments (such as biology). GA's in the Chemistry department must be in the M.A. (thesis) program. They are responsible for four three-hour undergraduate laboratory sections a week during the two regular semesters. Responsibilities of GA's in other departments vary, depending on the level of the assistantship and department needs; and they may be in either the M.A. or M.S. program. Graduate assistants receive a stipend and waiver of tuition and some fees. Application for all assistantships must be made through the Graduate School by March 1. Contact the Graduate School for information about current stipend levels.

## COURSE DESCRIPTIONS - CHEMISTRY

### Credits

#### **Chem 530. Structural Organic Chemistry 3**

A discussion on an advanced level of the most important features of structural theory, such as stereochemistry aromaticity, resonance and modern methods of structural determination. Applications of Woodward-Hofmann theory are also discussed.

#### **Chem 531. Mechanistic Organic Chemistry 3**

A consideration of the most important means of determining the detailed pathways of organic reactions. Substituent effects on rates of reactions are discussed. Mechanisms proceeding via polar, nonpolar and radical intermediates, including some biochemical reactions, are considered.

#### **Chem 532. Theoretical Organic Chemistry 3**

(Prerequisite, Chem 531) A study of methodology of determining the relationship of structure to reactivity, the mechanisms of important reaction types and the factors that can influence rates and pathways.

#### **Chem 533. Heterocyclic Chemistry 3**

(Prerequisite, Chem 531) An introductory survey of the structure and reactivity of important types of heterocyclic compounds.

#### **Chem 540. Advanced Inorganic Chemistry 3**

Theoretical concepts and their application to the reactions and structure of inorganic compounds. Introduction to coordination chemistry. Coordination chemistry and related topics; physical methods, reaction mechanisms.

#### **Chem 541. Bioinorganic Chemistry 3**

A study of the biological role of inorganic complexes and ions with particular attention paid to pumps and transport proteins, metalloenzymes, acid-base reactions, redox reactions dependent upon electron transfer, oxygen carriers, nitrogen fixation, and photochemically induced electron transfer.

#### **Chem 550. Biochemical Structure and Function 3**

Survey of the structure and function of biological macromolecules including proteins, carbohydrates, lipids, and nucleic acids. Introduction to chemical aspects of molecular biology, including DNA replication, gene regulation and protein synthesis.

#### **Chem 551. Biocatalysis and Metabolism 3**

A study of the metabolism of carbohydrates, lipids, proteins and nucleic acids. Introduction to enzyme kinetics and enzyme mechanisms.

#### **Chem 552. Biochemical Genetics 3**

Chemical aspects of cell biology and genetics. Topics include an introduction to the theories of heredity, structure of DNA and RNA, DNA replication, prokaryotic and eukaryotic gene regulation, translation and DNA technology.

#### **Chem 553. Enzymology 3**

A course on the chemical nature of enzymes with relation to mechanisms of enzyme action and kinetics. Purification and identification of enzymes and isozymes. Biochemical and physiological aspects of enzymes in living systems.

#### **Chem 554. Biochemistry of Disease 3**

A molecular description of pathological conditions in humans. Emphasis is placed on the effects of various disease states on metabolism. Diagnostic techniques and therapeutic approaches are also discussed.

#### **Chem 555. Chemical Toxicology 3**

The nature, mode of action and methods of counteracting substances which have an adverse effect on biological systems, especially human. Medical, industrial, environmental and forensic aspects will be discussed.

#### **Chem 556. Clinical Quality Control 3**

A study of the design and operation of a quality control program in a clinical laboratory. The course will include all those actions necessary to provide adequate confidence that test results satisfy given requirements and standards. Such areas as statistics, patient preparation, specimen integrity, external proficiency control, internal quality control, analytical goals and laboratory management will be covered.

**Chem 560. Introduction to Thermodynamics 3**

A review of the fundamentals of thermodynamics and kinetics.

**Chem 561. Introduction to Quantum Chemistry 3**

An introduction to quantum theory, with applications in spectroscopy and statistical mechanics.

**Chem 562. Advanced Quantum Chemistry 3**

Quantum mechanics and quantum chemistry, including perturbational theory, variational theory and specific applications of molecular orbital theories to organic molecules. Spectroscopic applications.

**Chem 563. Advanced Thermodynamics and Equilibrium 3**

A comprehensive treatment of thermodynamics, including electrochemistry, thermochemistry and chemical equilibrium. Some introduction to the concepts of statistical mechanics and their application to thermodynamics will also be given.

**Chem 564. Polymer Chemistry 3**

Introduction to the physicochemical aspects of polymers; emphasis on structure, properties and application; thermodynamics of polymer solutions; statistical mechanical consideration of polymers, theories of rubber elasticity.

**Chem 565. Instrumental Electronics 3**

An introduction to analog and digital electronics and microcomputers involved in computer automated laboratory instrumentation, including programming and interfacing required for laboratory data acquisition and control.

**Chem 570. Advanced Analytical Chemistry 3**

Theory, description, and application of modern analytical techniques with emphasis on spectroscopy, potentiometry chromatography, electrochemistry, and radiochemistry.

**Chem 571. Analytical Methods 3**

Laboratory practice with special and analytical apparatus and methods used for process and control, and for research. (Lab fee: \$40/cr.)

**Chem 572. Applied Spectroscopy 3**

The use of ultraviolet, visible spectroscopy, infrared spectroscopy, nuclear magnetic resonance spectroscopy and mass spectroscopy as tools for the identification of organic compounds. The course will include laboratory work using these instruments.

**Chem 573. Electro-Analytic Chemistry 3**

Theory and application of potentiometry, polarography amperometry, coulometry, and other analytical methods.

**Chem 584. Special Topics Variable**

Current topics in chemistry, biochemistry or clinical chemistry offered by members of the Department.

**Chem 590. Seminar 1**

Current topics in chemistry and biochemistry are prepared and presented by the students.

**Chem 599. M.A. Thesis 2-6**

## SOFTWARE ENGINEERING

**Dr. John A. Beidler, Director**

### **Program Description and Requirements**

Software engineering deals with the application of principles to the analysis, design, construction, and maintenance of computer software and its documentation. This master's degree program seeks to develop professionals who are knowledgeable about and skilled in the application of those principles. Software engineering is a relatively new field within the computing sciences, but one that is viewed as a crucial evolution as software proliferates and organizations become increasingly dependent on software both for routine operations and new developments.

The Master of Science in Software Engineering (MSSE) program requires 36 graduate credits, divided as follows:

Fundamentals - 4 courses, 12 credits:

SE 500, 501, 504, and 507

Advanced courses - 6 courses, 18 credits:

SE 510, 524, plus four elective courses

Thesis project - 2 courses, 6 credits:

SE 598, 599

Certain undergraduate background may be required, depending on the student's previous training. See Admission Requirements (item 4) below for a description of the required background for the program.

### **Admission Requirements**

The following are the normal admission requirements for the program. In making an admission decision, all of the information about an applicant will be viewed in combination. No single factor among those listed below will either qualify or disqualify an individual for admission to the program.

1. A bachelor's degree from an accredited institution with a minimum grade average of 3.0 (based on a scale of 4.0). Official transcripts of previous academic work must be submitted. A bachelor's degree in computer science is preferred, but not required. At least one year's experience in software development is highly desirable.
2. Scores from either the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE): General Test must be submitted. Information regarding when these tests are administered may be obtained from the Graduate Office. Generally the test must be taken no later than January in order to meet the March 1 application deadline.
3. Three letters of recommendation from professionals familiar with the software development work of the candidate. Letters from current and former professors who can comment on the candidate's technical expertise are acceptable.
4. Demonstratable knowledge equivalent to undergraduate courses in:
  - a. Structured programming in a block structured language (Ada, Pascal,).
  - b. Machine organization and assembler programming.
  - c. Discrete mathematics.
  - d. Data structures.
  - e. File Processing.

Students lacking such background but otherwise highly qualified for admission may be admitted on condition that certain undergraduate courses in the above areas be completed. If a student is lacking background in one or more of areas (a), (d), and (e) listed above, the student may be permitted to take SE 597 to fulfill the background requirement.

5. Good English language skills (oral and written). A TOEFL score of 550 is required for international students who do not speak English as their native language.

6. Submission of a three or four page essay on a software development or maintenance project in which the applicant has participated, an expository survey of a technical subject, or a report on a particular software tool or method. The report or essay must be authored solely by the applicant and be reasonably current.
7. A one or two paragraph statement of objectives and expectations in enrolling in the program. Items 6 and 7 should be submitted along with the Application for Admission to the program.
8. Students will be admitted only for entrance in the Fall term. (All application materials, as specified above, should be in the Graduate Office by March 1 preceding the Fall term in which the student wishes to begin study.)

## **COURSE DESCRIPTIONS - SOFTWARE ENGINEERING**

### **Credits**

#### **SE 500. Mathematics for Software Engineering 3**

(Prerequisite, admission to the program) This course introduces the student to Software Engineering and formal foundations. Terminology and definitions are introduced. Topics include an overview of Software Engineering, mathematical foundations of software engineering, set theory, predicate calculus, first and second order logic, temporal logic, finite state machines, etc.

#### **SE 501. Introduction to Software Development 3**

(Prerequisite, admission to the program) Introduction to the programming environment that will be used throughout the entire program. Review of common data structures: stacks, queues, linked lists, etc. Introduction to other data structures: graphs, B-trees, etc.

#### **SE 504. Formal Methods and Models 3**

(Prerequisite, SE 501) This course addresses issues concerning the production (and life) of quality software throughout the software life cycle. Limitations of verification and validation. Quality assurance. Proof of correctness methods. Technical reviews. Testing.

#### **SE 507. Requirements Analysis and Software Specification 3**

(Prerequisite, SE 500) Exploration of two inter-related subjects of software life cycle process; requirements and their specifications. Topics: Requirements analysis techniques, Interview process, prototypes, types of requirements (functional, nonfunctional, reliability, quality, security, etc.), traceability, languages of specification (Axiomatic, algebraic, finite state machine, abstract, operational, concurrency).

#### **SE 510. Principles and Applications of Software Design 3**

(Prerequisite, SE 507) The design of large software systems is an important activity of the software engineer. Topics include: abstraction, information hiding, modularity. Object design methods, data abstraction methods, interactive enhancement, data flow, program design languages. Design verification, user interfaces, distributed systems, realtime systems, etc.

#### **SE 515. Software Generation and Maintenance 3**

(Prerequisite, SE 501) Maintenance accounts for about 70% of the software system life cycle. Designing new maintainable software systems is as important as dealing with existing non-maintainable ones. Topics include: writing reusable software components, automatic code and application generators and their limitations, regression analysis, reverse engineering, etc.

#### **SE 516. Engineering of Software Systems 3**

There is a parallel between hardware system engineering and software systems engineering. Several issues are relevant to both and in many cases they interact with each other. Topics include: system specification and design, interfaces with hardware and software systems, human interfaces, system integration, documentation, training, overall requirements, and requirements gathering.

#### **SE 521. Database Systems 3**

(Prerequisite, SE 507) A study of database systems and their design and implementation. Topics include: security, query analysis and optimization, database systems requirements analysis, specification and implementation, etc.

#### **SE 522. Cost Collection and Analysis Metrics 3**

(Prerequisite, SE 510) This course explores the concepts and theories of cost estimation and how they relate to all aspects of the software life cycle. What to measure and why. Where to measure and how. Relationship to risk analysis, project management, etc.

#### **SE 524. Software Project Management 3**

(Prerequisite, SE 510) Software system development. Project development. Budget and human factors. Relationship between quality assurance, communication management and project documentation. Ethical and security issues.

#### **SE 532. Interactive and Time Critical Systems Design 3**

(Prerequisites, SE 507 & 510) Real-time and embedded software systems development present a whole different set of variables to the software engineer. This course focuses on a number of

design, development and maintenance techniques for this type of system. Topics include data acquisition and generation, system design strategies, testing constraints, verification, etc.

**SE 533. CASE Tools 3**

(Prerequisite, SE 524) Study and use of several CASE tools. CASE tools integration, choosing the tools for a particular environment.

**SE 592. Directed Study Variable 1-3**

**SE 597. Computer Science Fundamentals 3**

(Prerequisite, admission to the program) This is a special topics course taught in the summers only. Potential students with good software development experience, but who may otherwise lack background in the newer trends in software engineering are required to take this course. Topics include an introduction to top-down and object-oriented design, information hiding, introduction to the programming language Ada, and mathematical formalisms as an integral part of software development. (This course does not count toward the 36 credits required for the degree.)

**SE 598. Project Analysis & Design 3**

**SE 599. Project Implementation and Evaluation 3**

(Prerequisite, having passed all required courses) SE 598 and 599 is a two semester sequence in which students are expected to undertake a software thesis project which requires the use of tools, techniques and theory learned from previous courses. It will be strongly recommended that thesis projects be developed in teams.



## **PHYSICAL THERAPY**

**Dr. Carolyn E. Barnes, Chair**

### **General Description**

The University offers a master of physical therapy (MPT) degree program. Students begin this program as first-time freshmen, proceed through five years of study, and exit with the MPT degree. Students in the program officially become graduate students in their fifth year; however, no new students are admitted to the program in this fifth year.

Since students are admitted to the physical therapy program as freshmen and the majority of their course work is taken while they are undergraduates, the physical therapy program is described in the University's undergraduate catalog rather than in this graduate catalog. Inquiries about admission to the MPT program should be directed to the undergraduate Admissions Office: 717-941-7540.

Rev. J.A. Panuska, S.J.,  
President of the University of Scranton.

## PERSONNEL

### Officers of the University Corporation

The Rev. J.A. Panuska, S.J., President  
Marilyn Coar, Secretary  
David E. Christiansen, Treasurer

### Officers of Administration

#### **The Rev. J.A. Panuska, S.J. (1982)**

President of the University (1982)  
Professor, Biology (1982)  
B.S., Loyola College;  
S.T.L., Woodstock College;  
Ph.L., Ph.D., St. Louis University

#### **Richard H. Passon (1984)**

Provost/Academic Vice President (1984)  
Professor, English (1984)  
A.B., King's College;  
M.A., Ph.D., University of Notre Dame

#### **Shirley M. Adams (1986)**

Dean, Dexter Hanley College, Director of  
Instructional Development and of Learning  
Resources Center (1986)  
Assistant Professor, Education (1986)  
B.A., University of Northern Iowa;  
M.A., University of Iowa;  
Ph.D., Iowa State University

#### **James T. Bryan (1988)**

Vice President for Student Affairs (1988)  
B.S., State University of New York at Fredonia;  
M.A., Michigan State University;  
Ed.D., Columbia University

#### **David E. Christiansen (1987)**

Vice President for Finance/Treasurer (1987)  
B.S., M.B.A., LaSalle University

#### **Jerome DeSanto (1979)**

Assistant Provost for Information Technology (1991)  
B.S., M.B.A., University of Scranton

#### **Paul F. Fahey, Jr., D. et U. \* (1968)**

Dean, College of Arts and Sciences (1990)  
Professor, Physics/Electronics Engineering (1978)  
B.S., University of Scranton;  
M.S., Ph.D., University of Virginia

#### **Thomas P. Hogan (1985)**

Dean, Graduate School (1985)  
Professor, Psychology (1985)  
B.A., John Carroll University;  
M.A., Ph.D., Fordham University

#### **Joseph J. Horton (1986)**

Dean, School of Management (1986)  
Professor, Economics/Finance (1986)  
B.A., New Mexico State University;  
M.A., Ph.D., Southern Methodist University

**Charles E. Kratz (1992)**

Director of Library (1992)  
B.A., M.A., University of Notre Dame;  
M.L.S., University of Maryland

**Martin L. Langan (1974)**

Associate Vice President for Operations (1988)  
B.S., M.B.A., University of Scranton

**Thomas D. Masterson, S.J. (1976)**

Vice President for University Ministries (1976)  
and University Chaplain (1989)  
Assistant Professor, History/Political Science (1976)  
A.B., M.A., Fordham University;  
Ph.L., S.T.B., S.T.L., Woodstock College;  
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Dean of Admissions (1981)  
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### **Oliver J. Morgan, S.J. (1990)**

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