

1996-97



UNIVERSITY OF SCRANTON

GRADUATE SCHOOL CATALOG

University of Scranton

1996-97 Graduate Catalog

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**UNIVERSITY OF
SCRANTON**
A JESUIT UNIVERSITY

**THE GRADUATE SCHOOL
1996/1997 CATALOG**

Where Potential
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in the
Jesuit Tradition

August 1996

The Graduate School
University of Scranton
800 Linden Street
Scranton, Pennsylvania 18510-4632

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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
Printed in Canada

To the Prospective Graduate Student:

Pursuing graduate studies can be a very rewarding experience. It requires a commitment from you, the graduate student, and from the university you attend. Recognizing this challenge, the University of Scranton concentrates on the development of human potential. Through the use of up-to-date technical facilities and equipment combined with our extensive library, our renowned faculty will challenge your interests and provide the intellectual basis for you to succeed in your efforts.

We are sure that you will be pleased with the educational environment at the University of Scranton. Realizing that many questions can arise as you consider this most important step in developing your career opportunities, we invite you to contact directly, the department housing your prospective program or contact the Graduate School (717-941-7600) in order to obtain further information.



Robert E. Powell
Dean of the Graduate School
& Director of Research

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Calendar

Fall '96 Term Schedule

Orientation for new students	Sun., Aug. 25
CLASSES START	Tues., Sept. 3
Late fee in effect after	Mon., Sept. 9
Last day to add a course	Mon., Sept. 9
Last day to register for Comprehensive Examinations.....	Fri., Sept. 27
Last day to drop a course	Wed., Oct. 2
Term break (No classes)	Oct. 12 - 15
Comprehensive Examinations administered.....	Sat., Oct. 19
Last day to withdraw from course.....	Wed., Nov. 13
Last day for theses, scholarly papers.....	Fri., Nov. 15
Thanksgiving Holiday.....	Nov. 27 - Dec. 1
FINAL EXAMINATIONS.....	Dec. 14 - 19
Fall degree conferral date	Dec. 31

Intersession '97 Term Schedule

Advance registration	Oct. 21 - Nov. 1
CLASSES START.....	Mon., Jan. 6
Last day to add a course	Tues., Jan. 7
Last day to drop a course	Thurs., Jan. 9
Last day to withdraw from course.....	Thurs., Jan. 23
FINAL EXAMINATIONS.....	Jan. 29 - 30
Intersession degree conferral date	Jan. 31

Spring '97 Term Schedule

Advance registration	Oct. 21 - Nov. 1
Orientation for new students	Sun., Feb. 2
CLASSES START.....	Mon., Feb. 3
Late fee in effect after	Fri., Feb. 7
Last day to add a course	Fri., Feb. 7
Last day to drop a course	Wed., Mar. 5
Last day to register for Comprehensive Examinations.....	Fri., Mar. 21
Holiday break (No classes).....	Mar. 27 - Apr. 6
Last day to withdraw from course.....	Wed., Apr. 16
Comprehensive Examinations administered.....	Sat., Apr. 19
Last day for theses, scholarly papers.....	Fri., Apr. 25
FINAL EXAMINATIONS.....	May 18 - 23
GRADUATE COMMENCEMENT.....	Sat., May 31

Summer Sessions

Common Dates for Summer '97 Terms

Advance Registration.....	Apr. 7 - 18
Walk-in registration through.....	Second day of term
Last day to register for Comprehensive Examinations.....	Fri., June 13
Last day for theses, scholarly papers.....	Mon., July 7
Comprehensive Examinations administered.....	Sat., July 19
Summer degree conferral date.....	Aug. 31

Summer I '97 Term Schedule

CLASSES START.....	Mon., June 2
Last day to add a course	Tues., June 3
Last day to drop a course	Thurs., June 5
Last day to withdraw from course.....	Fri., June 20
FINAL EXAMINATIONS.....	June 25 - 26

Summer G '97 Term Schedule

CLASSES START.....	Mon., June 16
Last day to add a course	Tues., June 17
Last day to drop a course	Thurs., June 19
Last day to withdraw from course.....	Wed., July 16
FINAL EXAMINATIONS.....	July 23 - 24

Summer II '97 Term Schedule

CLASSES START.....	Mon., July 7
Last day to add a course	Tues., July 8
Last day to drop a course	Thurs., July 10
Last day to withdraw from course.....	Fri., July 25
FINAL EXAMINATIONS.....	July 30 - 31

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
Nursing	MS
Physical Therapy	MPT
Reading	MS
Rehabilitation Counseling	MS
School Counseling	MS
Secondary Education	MS, MA
Secondary School Administration	MS
Software Engineering	MS
Theology	MA

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

Supervisor certificates in:

Communication (English)	School Guidance Services
Foreign Languages	Science
Mathematics	Social Studies
Reading	

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: 1995-1996

Robert E. Powell.....	<i>Chair, Dean of the Graduate School</i>
Carolyn E. Barnes	<i>Professor of Physical Therapy</i>
Christopher Baumann.....	<i>Associate Professor of Chemistry</i>
J. Brian Benestad.....	<i>Professor of Theology/Religious Studies</i>
Regina B. Bennett.....	<i>Assistant Dean</i>
Yaodong Bi	<i>Assistant Professor of Computing Sciences</i>
Raymond W. Champagne, Jr.....	<i>Professor of History/Political Science</i>
Wayne H.J. Cunningham	<i>Associate Professor of Operations & Information Management</i>
Michael Friedman.....	<i>Associate Professor of English</i>
James L. Goonan	<i>Director of Graduate Admissions</i>
David W. Hall.....	<i>Associate Professor of Counseling and Human Services and Chair, Department of Counseling and Human Services</i>
Mary E. Muscari.....	<i>Assistant Professor of Nursing</i>
Paul Perhach.....	<i>Director, Career Services</i>
Richard W. Rousseau, S.J.	<i>Professor of Theology/Religious Studies</i>
John K. Stout.....	<i>Professor of Health Administration and Human Resources and Chair, Department of Health Administration and Human Resources</i>
Robert M. Weir, Jr.....	<i>Assistant Professor of Education</i>
David A. Wiley.....	<i>Associate Professor of Education and Chair, Department of Education</i>
Akbar Alinani	<i>Graduate Student</i>
Lisa Martel	<i>Graduate Student</i>
Rebecca M. Parente.....	<i>Graduate Student</i>
Deidre J. Ypma	<i>Graduate Student</i>

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, ordinarily 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.

Please refer to sections on individual programs for special application deadlines and additional admission requirements.

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 GPA 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 GPA 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. For details of such requirements for particular departments or programs, see the appropriate sections of this catalog.
- International students must submit scores from TOEFL and an affidavit of finan-

cial 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. Recommendation for Probationary Admission must include a prescription of nine hours of specific course work (three graduate courses) that the student must complete within the first twelve hours of graduate study as well as a discussion as to why this applicant should receive consideration for admission at this time.

Students accepted on probation may take a maximum of six (6) credits per semester (until the conditions of probation are satisfied) and must complete the prescribed nine hours of specific course work with a grade of "B" or better in each course. Failure to accomplish this will result in dismissal from the program.

A student on Probationary Admission may not hold a graduate assistantship until the conditions of probation have been satisfied.

Provisional Admission or Provisional Acceptance. Applicants who do not have the necessary undergraduate preparation in the discipline area requested but have demonstrated academic achievement indicative of successful graduate study with the proper preparation may be considered for Provisional Admission or Provisional Acceptance.

Provisional Admission. The applicant may gain Provisional Admission with the proviso that he/she complete a specific prescription of undergraduate course work in conjunction with his/her graduate studies (a specific prospectus of study must accompany this type of recommendation).

Provisional Acceptance. The applicant may gain Provisional Acceptance with the proviso that he/she complete a specific prescription of undergraduate course work, with a GPA of at least 3.0 in these studies, prior to undertaking graduate course work (a specific prospectus of study must accompany this type of recommendation). Upon successful completion of the undergraduate requirements, the applicant will petition his/her Graduate Program Director in order to gain admission to the graduate program and to begin taking graduate course work in that particular graduate program. If the prescription of undergraduate course work is taken and a GPA less than 3.0 is achieved, then the status of Provisional Acceptance will be withdrawn.

A student who has gained Provisional Acceptance may not hold a graduate assistantship until the undergraduate course work is successfully satisfied and acceptance into the Graduate School is granted.

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. Students matriculated at other institutions and wishing to take courses here for transfer purposes may follow an abbreviated admissions process (except for MBA courses). Contact the Graduate Office regarding details of this process. The continuance of graduate studies under this

category is governed by the standards of progress 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.

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.

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.* Students who are dropped from courses due to non-payment of tuition and subsequently wish to activate their registrations will be charged a reinstatement fee (see Tuition and Fees section).

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.

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. MBA students see page 78 for English proficiency requirement. 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.

Ordinarily, international students whose native language is not English are limited to six credits of work in their initial semester at the University.

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 '96 or Fall '96 are expected to attend the Fall Orientation; students beginning in Intersession '97 or Spring '97 are expected to attend the Spring Orientation.

FALL ORIENTATION: Sunday, August 25, 1996, 12-5 PM
Lecture Hall 102, Hyland Hall

SPRING ORIENTATION: Saturday, February 2, 1997, 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 System

The following grades are used in graduate course work:

<i>Grade</i>	<i>Quality Points Per Credit</i>	<i>Definition</i>
A	4.00	Superior/outstanding
A-	3.67	Excellent
B+	3.33	Very good
B	3.00	Good
B-	2.67	Fair
C+	2.33	Passing grade
C	2.00	Minimal passing grade
F	0.00	Failure
S	Not computed	Satisfactory or Pass
U	Not computed	Unsatisfactory or Fail

“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.

“T” 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.

“AU” 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 issued when a faculty member fails to meet the deadline for the submission of grade reports. Such temporary grades will be changed to permanent grade symbols when issued by the professor.

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 GPA 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 graduate grade point average (GPA) of at least 3.0 in order to graduate with a master's degree. In addition, it is expected that all students must maintain a cumulative graduate GPA of at least 3.0 in order to remain in good academic standing.

If a student is placed on academic probation, then the student is required to obtain a cumulative graduate GPA of at least 3.0 within the next three courses taken (normally nine hours of course work).

- a. Successful achievement of this expectation will result in the student being reinstated to regular academic status.
- b. Failure to achieve this expectation will cause the student to be subject to dismissal.

While there is no set limitation on the number of courses a student may take in a semester while on academic probation, it is imperative that the student recognizes the necessity of improved academic performance in order to regain the minimum graduate GPA of 3.0 within the next three courses.

A student on academic probation is not eligible to receive an initial offer of a graduate assistantship. A student who is a graduate assistant and who is placed on academic probation may be reappointed for a second year provided he/she is making reasonable progress towards completion of degree requirements. In this situation, the student's program director will have to provide to the dean a written recommendation for reappointment presenting a sufficient case for reappointment.

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. Credits for transfer must be acquired in residence at an accredited institution as a graduate student.
2. A maximum of nine (9) graduate credits may be transferred for graduate programs requiring at least 39 credit hours for completion and six (6) graduate credits may be transferred for graduate programs that require less than 39 credit hours for completion.
3. Courses to be transferred must be integral to the student's program of study.
4. Transferred credits must be taken within six (6) years of the date of the student's initial graduate enrollment.
5. A grade of B or better is required in any course to be transferred and an official transcript demonstrating this must be submitted for work at other institutions (including course descriptions of the credits in question). A grade of Pass or Satisfactory is not acceptable for transferred credits.
6. The course to be transferred must be a regularly scheduled course (and not a workshop).

Students matriculated at the University of Scranton may take courses at other accredited graduate schools for the purpose of transfer of credit only with the prior 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 4-5). 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 be dismissed.

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, History, Theology and Nursing may opt to do a thesis. A thesis is completed under the active supervision of the candidate's mentor and approved by at least one additional reader. 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. One copy of the thesis is placed in the University library.

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. 23). 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. 4-5).

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 the "Academic Code of Honesty" and the "Policies Governing the University Community") 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 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 the Comprehensive Examination.*

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 Bursar'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 for next year.

* See Calendar (pp. 4-5) for deadlines.

Resources

The Harry and Jeanette Weinberg Memorial Library

Library holdings include approximately 344,510 volumes; 2,183 periodical subscriptions; 324,620 microforms; 9,712 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 (717-941-7715) or via Telnet (CAT.UOFS.EDU). The Library's Online Public Catalog (OPC) and Information Gateway 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 or Home Page on the World Wide Web (<http://werewolf.uofs.edu/wml/index.html>).

Library hours are posted on campus, on the OPC, on the World Wide Web and on a recording (717-941-7525). It is open 99.5 hours per week, with extended hours during exam periods.

The University of Scranton belongs to a consortium of area colleges, NEPIC, that includes Marywood College, King's College, Wilkes University, College Misericordia, Keystone College, Luzerne County Community College and East Stroudsburg University. 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. A current contents/document delivery service, UnCover, is available to University students over the Internet.

– *Computer Database Services.* American Business Disk, American History & Life, Books-in-Print Plus, The Civil War: A Newspaper Perspective, Computstat, Compact Disclosure, Core Medline, County Business Patterns, Cumulative Index to Nursing and Allied Health, DOD Hazardous Materials Info System, ERIC, Grolier Electronic Encyclopedia, HealthPLAN, Historical Abstracts, Landmark Documents in American History, MLA International Bibliography, National Economic, Social, and Environmental Data Book, National Trade Data Bank, Newsbank, Newspaper Abstracts, 1987 Economic Census, 1990 Census of Population and Housing, Philosopher's Index, PsychLIT, Religion Indexes, Sociofile, Standard Federal Tax Reporter, U.S. Imports of Merchandise, U.S. Exports of Merchandise, U.S.A. Counties, Women's Indicators and Statistics Database, Women's Studies, and World of Macroeconomics 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. Three Information Access Company (IAC) databases are available online via the Internet through the Library's catalog or at CD stations. These are: Expanded Academic Index, Business Index and F & S Predicasts Index Plus Test and Hispanic American Periodical Index. Bibliographic, directory and statistical information can be accessed online via DIALOG, Dow Jones, OCLC, and Wilsonline. Searches are conduct-

ed 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.

– *Assistance* is available to Library users at the Circulation (717-941-7524) and Reference (717-941-4000) desks. A formal bibliographic instruction program orients users to the Library and its resources.

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 (717-941-7640) to arrange appointments.

Graduate students who have two full years of study remaining are eligible to participate in the ROTC program administered by the Military Science Department in the College of Arts and Sciences. Students participate in leadership experiences, adventure training, and are eligible for commissioning and a government service career. Contact the Military Science Department in Rock Hall (717-941-7457 or 717-941-6336).

Counseling Center

The Counseling Center staff provide individual and group counseling 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. In addition, emergency crisis consultation is available from September through May (while classes are in session) on a 24 hours basis via contacting Public Safety and Security (717-941-7777) to access the counselor-on-call. Stop by the Gallery building, floor 2F or call 717-941-7620 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 Roche Wellness Center, 1130 Mulberry Street (717-941-4253). Office hours are Monday through Friday, 8:30 a.m. to 4:30 p.m.

Graduate Assistantships, Financial Aid

Approximately 60 graduate assistantships are available. For students in the rehabilitation counseling program, traineeships are sometimes available. Information and application forms for the assistantships may be obtained from the Graduate Office. The deadline for applying for assistantships is March 1.

Residence Life Coordinator positions 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 (717-941-7700).

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 Information Resources at the beginning of each academic year, with periodic updates throughout the year. Students should consult current Information Resources publications for up-to-date details.

VAX 6610 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 – St. Thomas Hall, Room T464
Helene Fuld Nursing Lab – O'Hara Hall, Room O106
Education Apple Lab – O'Hara Hall, Room O621
SOM PC Lab – O'Hara Hall, Room O508
VAX Terminal Lab – O'Hara Hall, Room O519
PC Lab – Redington Hall
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 CDS Help Desk, Alumni Memorial Hall, 717-941-HELP. Up-to-date information is also available online through the University of Scranton Web Server (<http://www.uofs.edu>).

Learning Resources Center

The University's Learning Resources Center is located in Alumni Memorial Hall, Room 112. 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. An ESL class for international students is available depending on enrollment. The Center is open from 8:30 a.m. to 7:00 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. Services are also provided to students with disabilities. Contact the Center for further information (717-941-4038).

Byron Recreational Complex/John Long Center

Graduate students may use both the Byron Recreational Complex and the Long Center on a per semester fee basis. Facilities in the Byron Recreational Complex include three gymnasiums that may be used for basketball, volleyball, badminton, and tennis; indoor pool and locker rooms containing saunas and steam rooms; racquetball/handball courts; a dance/aerobics room; and individual fitness equipment. The John Long Center facilities, located adjacent to the Byron Complex, include a gymnasium, weight room, wrestling room and locker rooms.

Student Health Services

Student Health Services is located in the Roche Wellness Center at the corner of Mulberry Street and N. Webster Avenue. 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 (717-941-7667).

Tuition and Fees

Tuition (per semester hour of credit)	\$415.00
MBA Tuition (per semester hour of credit)	434.00
Software Engineering (per semester hour of credit)	465.00
Theology (per semester hour of credit)	208.00

Fees –

Application Fee.....	35.00
Binding of Thesis.....	40.00
Graduation Fee.....	80.00
Reader Fee (per credit fee in addition to tuition).....	30.00
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

Fees – Optional University Services

English Proficiency Course.....	300.00
Parking Fee (per year)	55.00
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 term.....	25%
Beyond thirty-one calendar days in th term.....	No Refund

Summer and Intersession

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

Secondary Education, Elementary Education, Administration (Secondary and Elementary), Reading, Supervision

Dr. David A. Wiley, Chair, Education
717-941-4032
<http://www.uofs.edu>

Department faculty: Professors - *Joseph M. Cannon, Joseph A. Fusaro;*
Associate Professors - *Thomas W. Gerrity, Joseph Khazzaka, David A. Wiley;*
Assistant Professors - *Robert Jeffrey Cantrell, Deborah Eville Lo, Rebecca June McMahon, Beatrice K. Volkman, Robert M. Weir, Jr.*

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; the Master of Arts and Master of Science 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 9-12 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 Department of Education 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 Department of Education 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 Department of Education 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 Department of Education . 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, Chair
717-941-4032

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* and *Research* course requirements (9 credits) are the same for all options. All students must take Ed. 502 Educational Research and must take six (6) credits of additional Foundation courses by choosing from Ed. 501, Ed. 503, and Ed. 508.

Research Course Requirement (3 credits)

Ed. 502 Educational Research3

Foundation Course Requirement (6 credits)

Ed. 501 Educational Psychology.....3

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

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

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

Curriculum and Instruction Option

Ed. 509 Improving Instruction3

OR

Ed. 512 General Methods and Planning3

Ed. 510 Curriculum Theory and Development3

Ed. 514 Group Processes in the Classroom3

Ed. 545 Reading/Language Arts in the Content Areas3

Ed. 560 Subject Methods.....3

Ed. 562 Teaching the Gifted Child3

Ed. 568 Education of the Exceptional Child3

Electives6

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 Classroom3

Ed. 562 Teaching the Gifted Child3

Ed. 568 Education of the Exceptional Child3

COUN 508 Developmental Psychology.....3

COUN 531 Psychology of Adjustment3

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
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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 Department of Education 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/Language Arts 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

Dr. David A. Wiley, Chair
717-941-4032

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* and *Research* course requirements (9 credits) are the same for all options. All students must take Ed. 502 Educational Research and must take six (6) credits of additional Foundation courses by choosing from Ed. 501, Ed. 503, and Ed. 508.

Research Course Requirement (3 credits)

Ed. 502	Educational Research	3
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Foundation Course Requirement (6 credits)

Ed. 501	Educational Psychology	3
Ed. 503	Educational Tests and Measurement	3
Ed. 508	Advanced Foundations of Education	3

The various options have the following requirements in addition to the Research and 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 re-quired for the Master of Science in Elementary Education with the Psychology Option.

General Studies Option

Electives27

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 Department of Education 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
Ed. 517	Field Experience II	1
Ed. 518	Field Experience III.....	1
Ed. 541	Foundations of Reading/Language Arts	3
Ed. 545	Reading/Language Arts 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
	Total Credits.....	42-48

Students can work toward a degree while completing certification requirements. To do this, they must complete the research and foundation course requirements and an additional twenty-seven (27) credits for a minimum of thirty-six (36) credits. Ed. 516-518 and Ed. 586-589 are required for certification. 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. Robert M. Weir, Jr., Director
717-941-6142

The Elementary and Secondary Administration programs are designed to prepare principals. In addition to the Graduate School's requirements, the following are requirements for admission to the Administration programs:

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, the comprehensive examination in School Administration, and 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 the Master of Science and 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.

<i>Course</i>	<i>Administrative Sequence:</i>	<i>Credits</i>
* 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
<i>Curriculum and Instruction Sequence:</i>		
Ed. 509	Improving Instruction.....	3
* Ed. 510	Curriculum Theory and Development.....	3
Ed. 541	Foundations of Reading.....	3
Ed. 545	Reading/Language Arts in the Content Areas.....	3
<i>Psychological and Behavioral Sequence (any one)*:</i>		
COUN 503	Group Process and Practice.....	3
COUN 508	Developmental Psychology.....	3
COUN 531	Psychology of Adjustment.....	3
COUN 567	Health and Behavior.....	3
<i>Philosophical and Sociological Sequence*:</i>		
Ed. 508	Advanced Foundations of Education.....	3
<i>Research Sequence*:</i>		
Ed. 502	Educational Research.....	3

* 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
717-941-6123

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 to acquire a reading specialist certificate and a Master of Science degree must complete the following:

<i>Research Course Requirement (3 credits)</i>		<i>Credits</i>
Ed. 502	Educational Research	3
<i>Foundation Course Requirement (6 credits)</i>		
Ed. 501	Educational Psychology	3
Ed. 503	Educational Tests and Measurement	3
Ed. 508	Advanced Foundations of Education	3
<i>Reading Courses (21 credits)</i>		
Ed. 541	Foundations of Reading/Language Arts*	3
Ed. 542	Reading: Psycholinguistic Bases	3
Ed. 543	Diagnosis of Reading Disabilities	3
Ed. 545	Reading/Language Arts in the Content Areas*	3
Ed. 546	Organizing and Operating Reading Programs	3
Ed. 549	Reading Practicum	3
Ed. 563	Children's and Adolescent Literature	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 to acquire 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

Non-certificated individuals with a bachelor's degree who want to acquire both a reading specialist certificate and a Master of Science degree must complete Ed. 501, Ed. 502, Ed. 503, and Ed. 508 and the twenty-one (21) credits in reading plus the fifteen (15) credits listed below:

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

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

Non-certificated individuals with a bachelor's degree, who want a reading specialist certificate only, must complete forty-five (45) of the forty-eight (48) credits listed above and on the preceding page, and they must pass a competency test. (Ed. 502, Educational Research, is not required for certification only.)

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:

Engl 505	Modern Grammar in the English Curriculum	3
Engl 506	Composition in the English Curriculum	3
Ed. 543	Diagnosis of Reading Disabilities	3
Ed. 545	Reading/Language Arts in the Content Areas	3
Ed. 548	Teaching of Study Skills	3
Ed. 549	Reading 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. Robert M. Weir, Jr., Director
717-941-6142

The Supervision program prepares elementary and secondary school subject supervisors in the following areas:

School Guidance Services	Foreign Languages
Reading	Mathematics
Science	Social Studies
	Communication (English)

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 to satisfy the competency requirements for supervisory certification and 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.

<i>Courses</i>	<i>Credits</i>
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 Process and Practice.....	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
A course designed to introduce students to scientific research. Covered will be basic statistical techniques, such as correlation, *t*-test, and Chi-square; quantitative research designs; ethnographic research; and meta-analysis. Emphasis will be placed on hypothesis-testing. Students will be required to complete a scientific research project.
- 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 micro-computers 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/Language Arts* 3

A course designed to provide an introduction to reading/language arts instruction and programs. Consideration will be given to literary instruction relevant to both skills-based programs and whole-language programs.

Ed. 542. *Reading: Psycholinguistic Bases* 3

(Prerequisite, Ed. 541 or consent of instructor) A course designed to familiarize students with psycholinguistic underpinnings of reading. Language acquisition and dialect variation, along with their effect on learning to read, are covered. Strategies to make students proficient in graphophonemic, syntactic, and semantic sources of information are given prominence.

Ed. 543. *Diagnosis of Reading Disabilities* 3

(Prerequisite, Ed. 542 or consent of instructor) A course designed to assist the student in becoming proficient in diagnostic skills. Standardized tests and informal assessment instruments will be examined and administered. The course has a practicum aspect in that the student will be required to diagnose developmental and disabled readers at the elementary and secondary level. Reports detailing the findings and recommendations for overcoming the problems will be written.

Ed. 545. *Reading/Language Arts in the Content Areas* 3

A course designed for acquainting students with strategies for teaching functional reading in the elementary and secondary schools. Covered will be reading, writing, and discussing strategies that facilitate elementary and secondary students' ability to reconstruct meaning from content-area materials.

Ed. 546. *Organizing and Operating Reading Programs* 3

A course dealing with the responsibilities for setting up and directing a school reading program. Attention will be given to aspects of programs and approaches to reading instruction at various grade levels. Program evaluation, staff development, and societal problems that affect reading development will be discussed.

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. *Reading Practicum* 3

(Prerequisite, Ed. 543 or consent of instructor) A practicum designed to provide a supervised tutorial experience. The student will diagnose a disabled reader and provide tutorial instruction designed to ameliorate the disabled reader's problems. A report of the results of the diagnoses, remediation, progress, and recommendations will be written.

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 Topics

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. 561. *Creativity in the Classroom* 3

This course is the study of the dynamics of creativity as it affects the classroom performance of students. Special attention will be given to teaching creativity as a skill or process, methodologies for teaching creative problem solving, developing a classroom climate conducive to the creative process and programs which utilize creative problem solving.

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 and Adolescent Literature* 3

A course designed to acquaint students with literature written for children and adolescents. Children and adolescents' 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.

Health Administration and Human Resources

Dr. Marie A. George, SPHR, Chair, Health Administration/Human Resources
717-941-4128

<http://tiger.uofs.edu/faculty/georgem1/>

Department faculty: Professor - *John K. Stout*; Associate Professor - *Daniel J. West*; Assistant Professors - *Marie A. George, Alice O'Neill, Peter C. Olden, Ugur "Tony" Sinay*; Instructor - *Valerie F. Kosky*.

The Department offers coursework leading to a Master of Health Administration (MHA) and a Master of Science degree in Human Resources Administration (HRA). The following policies and procedures apply to all these curricula. Specific curricular requirements are listed under the respective programs.

Admission Requirements

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 GPA 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. A personal interview prior to acceptance is required. New HRA students may start coursework in Fall and Spring semesters only. MHA students start in the Fall semester only. To be assured initial consideration *for the MHA program*, a student must apply for the program no later than April 15 (prior to the Fall semester of desired entry), however, applications received subsequent to this date and up to August 1 will be considered for admission on a space available basis. 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 14-15 regarding standards of progress and transfer of credits for the Graduate School.

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 program faculty identify deficiencies in professional development which make a 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 follow-

ing 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 is made when the student registers for HAD 509-Administrative Issues or HRA 507-Professional Contribution. The examination is completed at the midpoint of the course.

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.

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.

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. Residency experiences in Health Administration 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 12-18 months of full-time academic study, although most students attend on a part-time basis and earn their degree in 18 to 36 months. A maximum of 25 new HRA students start course work each Fall and Spring semester. A maximum of 25 students are started in the MHA program in the Fall semester only. 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 health administration and human resources 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.

Health Administration

Dr. Daniel J. West, Director
717-941-4126

Today's health care executives need a combination of specialized skills and a thorough knowledge of health care systems, organizations and their operations. Courses in the graduate health administration program introduce a body of knowledge unique to the health care industry. Health care leaders must be flexible and adaptable to constant changes, and learn to manage and operate in environments of increasing diversity and complexity. The MHA program is designed to accommodate full-time and part-time students who want to develop skills and acquire knowledge needed to be successful executives and leaders in health care organizations and systems. The program is an Associate Graduate Member of the Association of University Programs in Health Administration (AUPHA).

Program Objectives

The program is specifically designed to: (1) academically prepare individuals to enter supervisory and administrative positions; (2) enhance the performance of individuals employed in supervisory and administrative positions, but who lack academic training and credentials; (3) academically prepare individuals to enter or advance in a variety of staff positions; and (4) prepare individuals to advance to senior management positions. Faculty mentors work with students to design strategic career opportunities. The program emphasizes a learning environment wherein the student can acquire academic knowledge, gain practical skills, and engage in self-exploration and personal growth. Students are encouraged to work in health care settings during their academic studies thereby being able to discuss current problems and issues in the classroom and immediately apply what is learned.

The Health Administration Profession

The Master of Health Administration (MHA) program emphasizes preparation for and/or advancement in the broad field of health administration. Supervisory, administrative, and executive personnel work in a variety of health-related organizations and service delivery systems such as hospitals, long-term care facilities, ambulatory care settings, physician group practices, social service agencies, rehabilitation centers, home health organizations, managed care organizations, insurance companies, and various planning and regulatory agencies. Depending on the position, they may be engaged in line supervision of direct service workers or other managers, or they may be involved in positions such as planning, nursing, pharmacy, community relations, education, training, staff development, personnel, corporate development, and marketing. The MHA alumni remain a vital part of the program, creating an important professional network. In addition to serving as preceptors for fieldwork experiences, alumni serve as external mentors, guest lecturers, and sponsor a local health care symposium.

Curriculum

The MHA program requires 45 credits for a degree. The curriculum consists of 39 core credits and 6 elective credits. All courses are chosen to complement and assist in achieving the student's career goals. Health care management requires practical experience. All students are required to have appropriate fieldwork as part of their graduate studies. An administrative residency is required for students with no applied health care experience. Those students who need a formal administrative residency can enroll for 12 additional graduate credits to pursue this option. All fieldwork electives are taken in addition to the 45 credits required for the degree, and require a designated preceptor. Other types of fieldwork include an internship (3 cr.), externship (1 cr.) or directed study (3 cr.). The program has a variety of one credit graduate seminars which focus on current topics in health care administration. Some of these are required while others can be taken as electives.

There are four additional requirements, which must be completed in order to graduate. First, all students are expected to join the American College of Healthcare Executives (ACHE) as student members and join the University of Scranton ACHE Student Chapter during their first semester in the program. The program utilizes the ACHE Code of Ethics to establish an appropriate professional standard of conduct for health care executives. The program encourages involvement with other professional organizations also. Second, students must have an identified external mentor. Third, all students must be able to demonstrate personal computer literacy. Fourth, all students must demonstrate and document community service by being actively involved with an organization that provides health care services to the community.

Foundation Courses: Students entering the program must take certain courses in sequence to establish basic skills, competencies, and a core knowledge base. Foundation courses, taken in sequence, include HAD 500, HAD 501, HAD 505, and HAD 519. These courses also serve as prerequisite courses for more advanced courses in the curriculum.

Executive Certificate Program in Health Administration

A 15 credit hour program is available for professionals who desire advanced management training in health care administration. All applicants must have a minimum of two years administrative or clinical experience in health services and meet the Graduate School admissions process and procedures. Each participant must meet with the program director and develop a written individual study plan. The course of study must be completed within three years from the date of acceptance. This program is for professionals who do not wish to pursue a formal master's degree program but want to acquire specialized management skills to augment their existing management skills. All students must develop and receive approval of an individual study plan designed to achieve specific career objectives. A maximum of six credits from the Certificate program may be transferred to the MHA degree program.

Health Administration Curriculum

Core Courses (39 credits)

HAD 500	Organization and Administration*
HAD 501	Health Care Financial Management I*
HAD 502	Health Care Law
HAD 504	Human Resources Management
HAD 505	Health Care Statistics and Research Methods*
HAD 506	Health Care Policy
HAD 508	Leadership in Health Care Organizations
HAD 509	Administrative Issues
HAD 515	Health Care Planning and Marketing
HAD 519	Health Services and Systems*
HAD 521	Health Care Financial Management II
HAD 522	Health Care Operations Management
HAD 525	Medical Ethics and Social Responsibility (1 cr.)
HAD 526	Governance and Board Effectiveness (1 cr.)
HAD 527	Managed Care (1 cr.)

Elective Courses (6 credits)

(choose any two 3-credit courses)

HAD 510	Hospital Administration
HAD 511	Ambulatory Care Administration
HAD 512	Medical Practice Administration
HAD 513	Long Term Care Administration
HAD 582	Directed Study

1-Credit Graduate Seminars

(limited to three one-credit courses)

HAD 584	Professional Skill Development
HAD 584	Negotiation Skills
HAD 584	Occupational Medicine
HAD 584	National Health Reform
HAD 584	International Health Care
HAD 584	Home Health Care

Fieldwork Courses

(credits in addition to 45 credits required for degree)

HAD 580	Internship in Health Administration (3 crs.)
HAD 581	Administrative Residency (12 crs.)
HAD 582	Directed Study (3 crs.)
HAD 583	Externship in Health Administration (1 cr.)

Credits for Degree: 45

* Foundation courses taken in sequence.

Human Resources Administration

Prof. Valerie F. Kosky, Director
717-941-4090

The objective of the Human Resources Administration program is to prepare individuals for entry into and/or advancement in positions of leadership within profit and non-profit organizations. Specifically, the program is designed to: (1) academically prepare individuals to enter leadership positions; (2) enhance the performance of individuals employed in leadership positions, but who lack academic training and credentials; and (3) academically prepare individuals to enter or advance in a variety of human resource-related positions and departments. The program emphasizes an active learning environment wherein the student can acquire knowledge, gain practical skills, and engage in self-exploration and personal growth. Prospective students should be aware that the HRA program is not a business curriculum and is not intended to be the equivalent of an MBA program.

Areas of Specialization

Specialization allows the student to develop an area of expertise. The program contains three specializations. Organizational Leadership is the most general and provides the broadest academic preparation in general organization and administration. Human Resources and Human Resource Development are more specialized and prepare the student for more delineated professional roles in human resources administration. The specialization is shown on the student's transcript. When not selecting a specialization, a student may tailor a program of study based upon their previous knowledge, experience and future career plans.

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

Organizational Leadership. This specialization emphasizes preparation for and/or advancement in supervisory and administrative positions in public and private organizations. Supervisory and administrative personnel work with people and need a variety of human, conceptual, and technical skills. They use the processes of planning, communicating, problem solving and decision making to influence the efforts of individuals and groups to achieve organizational goals.

Human Resources. This specialization emphasizes preparation for and/or advancement in human resources systems which plan for and coordinate various personnel services and functions. These individuals work as human resource generalists in diverse organizational settings. Their tasks may involve assessing personnel needs; recruitment and selection; designing and implementing compensation and benefit systems; developing discipline and grievance-handling systems; ensuring the organization's compliance with equal employment opportunity and other governmental regulations.

Human Resource Development. This specialization emphasizes preparation for and/or advancement in human resources systems which promote learning and change on an individual, group or organizational level. These human resource specialists work in a staff or consultative capacity in most organizations. Their tasks may include performance analysis; designing, implementing and evaluating training programs; career and succession planning; organizational assessment and interventions; strategic human resource planning

and managing change.

Curriculum

The Human Resources Administration curriculum has three core courses. The two core courses, Organizational Leadership (HRA 500) and Human Resources (HRA 502) provide foundational knowledge in organization concepts, theories and human resources practices and should be taken in the first semester of study. The third core course, Professional Contribution (HRA 507) is a capstone course taken in the final semester prior to graduation. A specialization provides in-depth study in a particular area and encompasses five courses or fifteen credits including one required course. The remaining fifteen credits can be taken from other courses in the curriculum. For students with little work experience, an internship is recommended to be taken near the completion of course work. Computer applications are integrated throughout the curriculum, therefore entering students are expected to have proficiency in word processing, spreadsheet and database applications.

Professional Certification

The Society for Human Resource Management (SHRM) has identified a specified body of knowledge for professionals within the human resources field. The Human Resources Administration curriculum offers this body of knowledge for students interested in being certified. Two certification exams, the Professional in Human Resources (PHR) and Senior Professional in Human Resources (SPHR) are administered by the Human Resource Certification Institute. Students are encouraged to join the University of Scranton chapter of SHRM and plan to take the appropriate certification exam near the completion of their program of study. Inquiries regarding the certification process should be directed to:

Human Resource Certification Institute
609 North Washington Street
Alexandria, VA 22314-1997
(703) 548-3440

Human Resources Administration Curriculum

Required Core Courses

(9 credits required)

HRA 500	Organizational Leadership
HRA 502	Human Resources
HRA 507	Professional Contribution

Area of Specialization

Organizational Leadership

(15 credits required)

HRA 501	Planning
HRA 503	Control and Budgeting Systems *
HRA 509	Administrative Issues
HRA 521	Work Motivation
HRA 523	Individual Behavior
HRA 524	Group Behavior
HRA 525	Quality Improvement
HRA 527	Disability and Work
HRA 528	Cultural Diversity

Human Resources

(15 credits required)

HRA 526	Human Resources Information Systems *
HRA 530	Compensation Systems
HRA 531	Benefit Systems
HRA 532	Labor Relations
HRA 535	Employee Assistance Programming
HRA 536	Employment Law
HRA 537	Human Resources Policies
HRA 538	Health, Safety, and Security

Human Resource Development

(15 credits required)

HRA 505	Evaluative Research *
HRA 534	Learning in Organizations
HRA 540	Organizational Analysis
HRA 541	Organizational Change
HRA 543	Training Methods
HRA 544	Human Resources Planning
HRA 545	Career Planning and Development

Additional Courses

HRA 580	Internship
HRA 582	Directed Study
HRA 584	Special Topics

Credits for Degree: 39

* Required course in specialization.

Course Descriptions

Health Administration

Credits

- HAD 500. *Health Care Organization and Administration* 3
The planning, organizing, staffing, influencing, and controlling functions of administration are studied. The course examines organizational theories and systems, internal and external stakeholders, models of integration and competition, organizational structures, and organizational dynamics. This survey course provides a foundation for other advanced courses in the curriculum. Health status of populations and determinates of health and illness are discussed.
- HAD 501. *Health Care Financial Management I* 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 502. *Health Care Law* 3
Impact of legal factors affecting patient/client care and the operations and administration of health care facilities and systems. Examines principles and practices of law, legal relationships, sources of law and legal processes affecting the health services system. Conceptual foundations are drawn from the political sciences.
- HAD 504. *Human Resources Management* 3
Examines human resource management functions, processes and systems within organizations including recruitment, selection, training and the legal and regulatory environment affecting HRM operations. Managing and developing human resources within and between systems/organizations is also studied. Organizational performance and creativity are examined.
- HAD 505. *Health Care Statistics and Research Methods* 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 Care Policy* 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 provider behavior, cost versus quality, competition, insurance expenditures, market structure, access and utilization, and national health plans. The public policy making process is also studied.
- HAD 508. *Leadership in Health Care Organizations* 3
Micro and macro organizational behavior theories provide the theoretical foundation for this course. The processes of communication, value analysis, problem solving and decision making are explored at an individual, team and organizational level. The imperative for health care leaders to understand and manage change will be emphasized. Various models of leadership will be critically analyzed. Conceptual foundations are drawn from the social sciences, psychology and related disciplines.
- HAD 509. *Administrative Issues* 3
(Prerequisite, 36 core HAD credits or approval by Program Director) A case study method requiring integration and application of acquired knowledge, skills and competencies in health care supervision and administration. Intensive qualitative and quantitative analyses in major problem areas. Teamwork skills are developed. Services as a capstone course for the health administration student. Emphasis is placed on understanding and assessment of health status, determinants of health and illness, and use of health services. Requires application of knowledge acquired from all courses in the core curriculum. All written work requires an oral defense. Interaction with professionals in applied settings is required.

- 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. The future role of acute care is examined in the context of integrated delivery models and systems.
- 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. New models of delivering outpatient services are discussed.
- HAD 512. *Medical Practice Administration* 3
 Examines factors influencing physician practices and the quality of physician services. Topics include operating and administrative issues, compensation, staffing, billing, collections, reimbursement mechanisms, and governance. The course also examines PHOs, HMOs, SDOs, MSOs and other integrated delivery networks, organizations and systems affecting physicians.
- 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. Emerging models of care are discussed in addition to traditional management functions in the industry.
- HAD 515. *Health Care Planning and Marketing* 3
 (Prerequisite, HAD 519) The role, function, and application of marketing and planning in health care administration are studied. Content includes exchange, strategic planning, buyer behavior, segmentation, market research, products, pricing, distribution, promotion, and marketing control. Unique aspects of health care services and service design/performance are studied as they affect marketing. Selected theoretical concepts are drawn from disciplines such as economics, psychology, and sociology.
- HAD 519. *Health Services and Systems* 3
 (Prerequisite, HAD 500) This graduate course studies the past, present, and future development of health services and systems in the United States. Topics include organizations, providers, workforce, technology, financing, expenditures, regulation, assessment, planning, and the structure and function of the health care system. Selected conceptual foundations are drawn from disciplines such as systems theory, epidemiology, sociology, and economics.
- HAD 521. *Health Care Financial Management II* 3
 (Prerequisite, HAD 501) 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. An analysis of generally accepted auditing practices in health care institutions, reporting requirements for internal and external auditing.
- HAD 522. *Health Care Operations Management* 3
 (Prerequisite, HAD 505) 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 are discussed in conjunction with computer lab applications.
- HAD 525. *Medical Ethics and Social Responsibility* 1
 Examines ethical theories and moral issues in health care settings and how decisions made by managers affect other people at a personal, societal, and organizational level. Ethical analysis and application are stressed, in addition to ethical code of conduct. Case studies are used to enhance development of skills in ethical analysis and decision making.

- HAD 526. *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, regulatory compliance and accountability.
- HAD 527. *Managed Care* 1
 This course focuses on the impact of managed care on health care consumers, purchasers, payors and providers. Various managed care programs, products, models, strategies, and financing are identified and studied. Specific emphasis is placed on integrated delivery system development, risk contracting, capitation, contract administration and regulatory compliance. Physician-hospital models are studied as well as MSOs, PSOs and SDOs.
- 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* 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
 (Prerequisite, 6 core credits completed) A course which allows the student to pursue an area of health care interest, research, or scholarly activity under the guidance of a faculty person and/or preceptor. This course stresses the development of refined writing, research, and technical skills using applied experiences and models. Student's are expected to expand or refine knowledge in specific areas of health care and/or develop additional competencies via supervised fieldwork. Approval by the Program Director is required.
- 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. Graduate seminars are developed to address current or emerging health care systems changes.
- One Credit Special Topics Seminar Courses (HAD 584)**
- 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.
- Home Health Care* 1
 This course examines basic information about the organization, funding, regulation and type of home health care services. Home health care's position in the health care delivery system, current trends and information resources for managers are discussed.
- Professional Skill Development* 1
 A course designed to refine management skills in time management, managing priorities, delegation and conflict management. Examination of specific occupational stressors, theories of stress, coping strategies and recognizing the etiology of stress. This course provides further refinement of career planning identifying behaviors critical to management success. Students are provided with an opportunity to improve communication skills, both oral and written skills.

International Health Care 1
Examines the structure and management of health service systems in other countries, socioeconomic factors and national health policy. Topics include marketing opportunities, universal health coverage, and emerging trends in the global market of health care.

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.

National Health Reform 1
A historical review of the efforts to reform American health care with a focus on new proposals for reform, government regulations and laws, and an examination of health care systems in the United States and other countries.

Human Resources Administration

HRA 500. *Organizational Leadership* 3
Organizational behavior, theories and practices examined from traditional and contemporary perspectives. The role of effective leadership within a changing workplace and workforce is emphasized.

HRA 501. *Planning* 3
The strategic planning process reviewed with practical applications in environmental scanning, SWOT analysis, strategy development, operational planning and evaluation.

HRA 502. *Human Resources* 3
A survey of human resources functions utilized within organizations and their implications for line and staff personnel. Some of the topics include recruitment, selection, compensation, performance review, training and the legal environment that affect personnel.

HRA 503. *Control and Budgeting Systems* 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. *Evaluative Research* 3
Qualitative and quantitative research methods appropriate to the study of organizations. The significance and development of the practitioner as field researcher highlighted.

HRA 507. *Professional Contribution* 3
A seminar style course which requires students to work in a self-directed manner on a professional contribution relevant to their career interests. The course results in a presentation and written report or publishable article. This course is taken as a culmination of students' graduate study.

HRA 509. *Administrative Issues* 3
A seminar which facilitates integration and application of complex organizational issues. A case study or simulation or self-directed project precedes formal student presentations. Completion of 27 credits required.

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
 The study of group behavior in organizations including theories of group development, leadership, group roles and norms. An experiential approach will allow students to observe and participate in various problem solving and decision making situations.
- HRA 525. *Quality Improvement* 3
 Current organizational efforts in improving the quality of services and products reviewed. Case studies and research findings included which explore the advantages and limitations of systemic change associated with quality improvement efforts.
- HRA 526. *Human Resource Information Systems* 3
 This course considers the role, function, and integration of Human Resources Information Systems (HRIS) within an organization's information systems and technology architecture. Practical applications of HRIS and office productivity software will be explored through hands-on use of personal computers. Proficiency in word processing, database and spreadsheet applications required.
- 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
 The study of strategic and operational decisions in the design and coordination of compensation systems. Considerations for external competitiveness, internal equity, and the legal environment are explored. Job evaluation, salary surveys, and computer applications included.
- HRA 531. *Benefit Systems* 3
 Concerns all of the ways in which organizations indirectly reimburse their employees and the legal/regulatory environment affecting benefits systems. The implications of employee benefits for organizational expenses and reward systems.
- HRA 532. *Labor Relations* 3
 The role of organized labor and collective bargaining in the workplace. The initiation, negotiation and management of the union contract including the grievance/arbitration process.
- HRA 534. *Learning in Organizations* 3
 The training function within organizations studied with an emphasis on performance analysis as a means to effectively identify and design learning interventions. The impact of continuous learning at an individual, team, and organizational level emphasized.
- 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 536. *Employment Law* 3
 A review of the legal and regulatory environment which affects employees and organizations. Federal and state legislation including significant court decisions examined.
- HRA 537. *Human Resources Policies* 3
 Development of policy statements and operational procedures necessary for maintaining effective human resource activities and functions. Practical applications in researching and formulating written policies and procedures.

HRA 538. <i>Health, Safety and Security</i>	3
Reviews organizational activities and the regulatory environment that relate to the occupational health, safety and security of employees.	
HRA 540. <i>Organizational Analysis</i>	3
Emphasis on the role organizational analysis plays in the assessment of training needs and organizational change strategies. Experience provided in the systematic analysis and evaluation of the effectiveness of various organizations.	
HRA 541. <i>Organizational Change</i>	3
Various organizational models will guide the exploration of the development of organizational change strategies and techniques. Reviews the technical, political and cultural factors that affect the effective management of change.	
HRA 543. <i>Training Methods</i>	3
Adult learning theories will provide the theoretical framework to understanding the elements of an effectively designed training intervention. An experiential learning approach provides students with opportunities to develop competencies in training assessment, design, implementation, and evaluation.	
HRA 544. <i>Human Resource Planning</i>	3
In-depth study of the steps in the human resource planning process including forecasting methods, affirmative action and succession planning. Implications for line managers and human resources staff explored.	
HRA 545. <i>Career Planning and Development</i>	3
Current workplace trends in career planning and its implications for the employee, supervisor and organization. Career development theories and the career planning process reviewed.	
HRA 580. <i>Internship in Human Resources</i>	3-6
A 200-400 clock hour placement in a staff or administrative position which is taken after completion of at least 27 credits. A semester project may be required. May be graded satisfactory (pass) and unsatisfactory (fail).	
HRA 582. <i>Directed Study</i>	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. <i>Special Topics</i>	3
Topics of current interest are offered on a variable basis.	

Community Counseling, Rehabilitation Counseling, School Counseling

Dr. David W. Hall, Chair, Counseling and Human Services
717-941-4127

<http://academic.uofs.edu/departments/chs/>

Department faculty: Associate Professors - *James J. Cunningham, Thomas W. Decker, LeeAnn M. Eschbach, David W. Hall, Oliver J. Morgan, S.J.*; Assistant Professors - *Thomas M. Collins, Ann Marie Toloczko*; Instructor - *Lori A. Bruch*.

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

Admission Requirements

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 GPA 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 GPA of at least 3.0 after completing nine credits of coursework to be removed from probation. International students should score at least 575 on the TOEFL.

New students may start coursework in Fall and Spring semesters only. Students applying to begin study in the Fall semester must submit their completed application to the Graduate School prior to March 1. The application deadline for students wishing to begin studies in the Spring semester is November 1. Personal interviews with program faculty and students prior to acceptance are required. Applicants must be accepted by the Graduate School before starting courses.

Standards of Progress and Transfer of Credits

Please refer to the Academic Regulations on pages 14-15 regarding standards of progress and transfer of credits for the Graduate School. Students who wish to waive a required 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 faculty identify deficiencies in professional development which make a 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 perfor-

mance 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 must successfully pass a comprehensive examination which includes written and experiential components. Application for the comprehensive examination is made when the student registers for the counseling practicum. An acceptable level of performance in the practicum is required to pass the comprehensive examination.

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

Students who successfully complete all their curricular and clinical training requirements for the Master of Science degree 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 examination, 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.

Students in this program may also be interested in Residence Life Counselor positions. For all these opportunities, see page 20.

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. 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 may be spread over several semesters to accumulate the needed number of clock hours.

Employment Opportunities

According to the *Occupational Outlook Handbook*, U.S. Department of Labor, employment in the fields of counseling 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.

Community Counseling

Dr. Thomas M. Collins, Director
717-941-4129

The Community Counseling program prepares professionals for direct entry into and/or advance in counseling-related positions in private and public human service organizations and systems. The program offers a Child Welfare Track specifically designed to prepare for child welfare settings which provide families with the services and supports necessary to ensure each child a safe, secure, and risk-free permanent environment.

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 in counseling; and (4) enhance individual's employability in entry level or advance positions either in human service or child welfare settings. The program offers a learning environment whereby the student acquires the academic competencies of the profession, refine 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-three required credits include 27 credits of course work in principles and practice of counseling, 3 credits of practicum and 3 credits of internship. Fifteen 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.

The Child Welfare Track is a 48 credit curriculum with 39 required credits including 33 credits, 3 credits of agency-based practicum (100 hours of supervised counseling experience in a child welfare setting), 3 credits of agency-based internship (600 hours of supervised field experience), and 9 credits of electives.

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 Commission on Recognition of Postsecondary Accreditation (CORPA). 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

(33 credits required)

COUN 500	Professional Issues: Community Counseling
COUN 501	Counseling and Interviewing Skills
COUN 502	Counseling Theories
COUN 503	Group Process and Practice
COUN 504	Appraisal Techniques
COUN 505	Research Methods
COUN 506	Social and Cultural Issues
COUN 507	Career and Lifestyle Development
COUN 508	Developmental Psychology
COUN 590	Practicum: Community Counseling
COUN 595	Internship: Community Counseling

General Electives

(15 credits required)

Disability and Specialty Populations

COUN 520	Professional Issues: Rehabilitation Counseling
COUN 521	Physical Disabilities
COUN 522	Vocational Aspects of Disability
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: 33

Total Elective Credits: 15

*Community Counseling
Child Welfare Track Curriculum*

*Professional Foundations
(39 credits required)*

- COUN 501 Counseling and Interviewing Skills
- COUN 502 Counseling Theories
- COUN 503 Group Process and Practice
- COUN 504 Appraisal Techniques
- COUN 505 Research Methods
- COUN 506 Social and Cultural Issues
- COUN 507 Career and Lifestyle Development
- COUN 508 Developmental Psychology
- COUN 540 Family Counseling and Therapy
- COUN 550 Professional Issues: Child Welfare
- COUN 551 Child Welfare Services
- COUN 580 Child Welfare Agency Practicum (Agency-based)
- COUN 585 Child Welfare Agency Internship (Agency-based)

*General Electives
(9 credits required)*

- COUN 541 Homebased Family Intervention
- COUN 542 Family Violence
- COUN 560 Addictive Behaviors
- COUN 563 Crisis Intervention
- COUN 564 Children's Mental Health
- COUN 565 Psychiatric Disorders
- COUN 570 Problems of Adolescence

Credits for Degree: 48

Total Required Credits: 39

Total Elective Credits: 9

Rehabilitation Counseling

Prof. Lori A. Bruch, Director
717-941-4308

The Rehabilitation Counseling program prepares 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 in achieving 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 33 credits of coursework in principles and practices of rehabilitation counseling, three credits of practicum (100 hours of supervised counseling experience) and a minimum of 3 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.

Rehabilitation Counselor Certification

The Rehabilitation Counseling program is accredited by the Council on Rehabilitation Education (CORE), a specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation (CORPA). 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
1835 Rohlwing Road, Suite E
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 and Interviewing Skills
COUN 502	Counseling Theories
COUN 503	Group Process and Practice
COUN 504	Appraisal Techniques
COUN 505	Research Methods
COUN 506	Social and Cultural Issues
COUN 507	Career and Lifestyle 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

General Electives

(9 credits required)

Disability and Specialty Populations

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 Required Credits: 39 Total Elective Credits: 9

School Counseling

Dr. LeeAnn M. Eschbach, Director
717-941-6299

The School Counseling program prepares students for entry into secondary and elementary school counseling positions. Both elementary and secondary school counselors provide professional services aimed at meeting the educational, career, personal and social needs of students, both developmentally and in crisis situations. The programs provide 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.

Curricula

The School Counseling programs are 48-credit curricula leading to the Master of Science degree. The curricula are divided into four areas or sequences: psychological and sociological foundations, counseling, professional orientation, and research. A 3 credit practicum and 3 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 programs are designed to meet the standards for certification as Elementary or Secondary School Counselor established by the 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 Elementary or Secondary School Counseling. The programs are 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 Commission on Recognition of Postsecondary Accreditation (CORPA). 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 all competency requirements for certification as identified by PDE.

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
Secondary School Counseling Specialization

Psychological and Sociological Foundations Sequence:
(9 credits required)

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

Counseling Sequence:
(21 credits required)

- COUN 501* Counseling and Interviewing Skills
- COUN 502* Counseling Theories
- COUN 503* Group Process and Practice
- COUN 504* Appraisal Techniques
- COUN 540* Family Counseling and Therapy
- COUN 592* Practicum: School Counseling
- COUN 597* Internship: School Counseling

Professional Orientation Sequence:
(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 Methods

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 565 Psychiatric Disorders
- COUN 570 Problems of Adolescence
- COUN 571 Counseling Issues for Women
- COUN 582 Directed Study
- COUN 584 Special Topics

Credits for Degree: 48

Total Required Credits: 39 Total Elective Credits: 9

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

School Counseling Curriculum
Elementary School Counseling Specialization
Psychological and Sociological Foundations Sequence:
(9 credits required)

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

Counseling Sequence:
(21 credits required)

- COUN 502* Counseling Theories
- COUN 503* Group Process and Practice
- COUN 504* Appraisal Techniques
- COUN 511* Counseling with Children
- COUN 540* Family Counseling & Therapy
- COUN 593* Practicum: Elementary School Counseling
- COUN 598* Internship: Elementary School Counseling

Professional Orientation Sequence:
(6 credits required)

- COUN 530* Professional Issues: School Counseling
- COUN 534* Consultation in the Elementary School

Research Sequence:
(3 credits required)

- ED 502 Education Research
- COUN 505 Research Methods

Elective(s):

- ED 501 Educational Psychology
- ED 568 Education of the Exceptional Child
- 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 565 Psychiatric Disorders
- COUN 566 Behavioral Counseling
- COUN 567 Health and Behavior
- COUN 570 Problems of Adolescence
- COUN 571 Counseling Issues for Women
- COUN 584 Children's Mental Health
- COUN 594 Practicum in Group Counseling

Credits for Degree: 48

Total Required Credits: 39 Total Elective Credits: 9

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

Course Descriptions

Credits

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 and Interviewing 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 Process and Practice* 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 Methods* 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 and Lifestyle 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 511. *Counseling With Children* 3
(Prerequisite, COUN 502) This course deals with the application of counseling theory to the counseling interview situation with elementary school clients. The counseling process, the core elements of a facilitative counseling relationship, and specific techniques for counseling children will be examined. Counselor candidates will begin to develop basic interviewing skills.
- 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 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 534. *Consultation in the Elementary School* 3
This course provides an examination of issues relevant to the roles and functions of the elementary school counselor as a consultant, collaborator, and program planner. Topics explored include guidance program planning and evaluation, and working with others both within the school system and the community.

- 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 541. *Homebased Family Intervention* 3
 (Prerequisite, COUN 540) This advanced family intervention course concentrates on services that are delivered to families in which a child/adolescent is at risk of placement outside the home through child welfare, mental health, juvenile justice, drug and alcohol, or special education. The emphasis will be on designing services that allow a child/ adolescent to stay in the home and within the community.
- COUN 542. *Family Violence* 3
 This course examines the dynamics and treatment strategies associated with work in homes where family members have experienced various forms of physical, sexual, and emotional maltreatment from other family members.
- COUN 550. *Professional Issues: Child Welfare* 3
 Focuses on the underlying philosophical, historical, professional, legal, and ethical issues faced by counselors in child welfare settings. Designed to acquaint the student with important issues and roles in the child welfare field and to help the student establish a sense of professional identity.
- COUN 551. *Child Welfare Services* 3
 This course is designed to provide a comprehensive examination of principal child welfare issues, policies, and services. Supportive, supplementary, protective, and substitute services will be covered with a special focus on the philosophical issues related to parent, child, and societal rights and responsibilities. Emphasis will be on child welfare services as a field of counseling practice.
- 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 563. *Crisis Intervention* 3
 This course is designed to acquaint the student with the theory and practice of crisis intervention as it is applied to common crisis situations such as suicide, battering, violent behavior, post-traumatic stress disorder, substance abuse, sexual assault, and personal loss. Didactic instruction will be supplemented by role play experiences, guest lectures by crisis intervention specialists, and use of audiovisual materials.
- COUN 564. *Children's Mental Health* 3
 This course is designed to introduce the graduate student to counseling of children with mental health needs. Children's behavior will be examined along a continuum that ranges from normal developmental discontinuities to serious emotional, behavioral, or mental disorders. Each type of problem will be examined in terms of its etiology, preferred form of psychotherapeutic intervention, and psychopharmacological treatment where appropriate. In addition, systemic issues will be examined that impact upon provision of services to children.

- 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 580. *Child Welfare Agency Practicum* 3
(Prerequisites, COUN 501, 502, 504) Focuses on necessary and desirable counseling skills, development of counseling relationships, and case conceptualization within the child welfare agency. 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 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 585. *Child Welfare Agency Internship* 3
(Prerequisite, COUN 580) Full time placement in a child welfare 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. 74The Internship must coincide with academic semester.
- 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 593. *Practicum: Elementary School Counseling* 3
This course consists of actual counseling of clients under supervision. Practicum focuses on necessary and desirable counseling skills, development of counseling relationships, and case conceptualization. Practical applications of counseling theories and techniques, psychological testing, and career development theory are emphasized. A variety of on-site counseling experiences are provided for students. Required of all Elementary School Counseling students.
- 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* 3
(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 3 credits is required of all students. Students who require more than one semester/term to complete the internship must register for three credits of internship per semester/term.
- COUN 596. *Internship: Rehabilitation Counseling* 3
(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 3 credits is required of all students. Selected students may earn a maximum of 9 internship credits. Students who require more than one semester/term to complete the internship must register for three credits of internship per semester/term.
- COUN 597. *Internship: School Counseling* 3
(Prerequisite, COUN 592) Placement of counselor-trainee students in a secondary school guidance office, involving 600 clock hours of supervised experience. Actual counseling of secondary school students under supervision occurs in this course. A variety of experiences are provided for individual counseling and other counselor-related activities, usually on site. A minimum of 3 credits is required of all students. Students who require more than one semester/term to complete the internship must register for three credits of internship per semester/term.
- COUN 598. *Internship: Elementary School Counseling* 3
(Prerequisite, COUN 592) Placement of counselor-trainee students in an elementary school guidance office, involving 600 clock hours of supervised experience. Actual counseling of elementary school students under supervision occurs in this course. A variety of experiences are provided for individual counseling and other counselor-related activities, usually on site. A minimum of 3 credits is required of all students. Students who require more than one semester/term to complete the internship must register for three credits of internship per semester/term.

Business Administration

Dr. Wayne H. J. Cunningham, Director of the MBA Program
717-941-4043
<http://www.uofs.edu>

Department of Accounting faculty: Professor - *Joseph R. Zandarski, C.P.A.*;
Associate Professors - *Brian Carpenter, C.M.A. (Chair), Ronald J. Grambo, C.P.A.,
Daniel Mahoney, C.P.A., Michael Opasu Mensah, Robert P. Yori*; Assistant Professors -
Laura Helene Ellis, Roxanne T. Johnson, Robyn Lawrence.

Department of Economics/Finance faculty: Associate Professors - *George V.
Babcock, Mrigen Bose, Frank P. Corcione, Satyajit P. Ghosh (Chair), Ralph W.
Grambo, Jr., Riaz Hussain, John Kallianiotis, Hong V. Nguyen, Murli Rajan,
Edward M. Scahill, Susan Trussler.*

Department of Management/Marketing faculty: Associate Professors - *Gerald
Biberman (Chair), Alan L. Brumagim, Jafor Chowdhury, Irene Goll, Delia A. Sumrall*;
Assistant Professors - *Subramanian Balakrishnan, Satya P. Chattopadhyay, Eileen
B. Hewitt, Len Tischler, Francis J. Wormuth.*

Department of Operations & Information Management faculty:
Professor - *Prasadarao V. Kakumanu (Chair)*; Associate Professors - *Ying I. Chien,
Wayne H.J. Cunningham, Kingsley S. Gnanendran, Deborah J. Gougeon, Satyanarayana
Prattipati, Rose Sebastianelli*; Assistant Professor - *Nabil Tamimi.*

The Master of Business Administration (MBA) program at the University of Scranton seeks to develop in students of high intellectual caliber and leadership potential the knowledge, abilities and attitudes which will prepare them for further studies and/or management careers in a rapidly changing, technologically advanced business environment. A significant emphasis is placed on providing education that will benefit both the student and the local, national and/or international community.

Accreditation

The MBA program at the University of Scranton is one of only eleven graduate programs in Pennsylvania which is accredited by the American Assembly of Collegiate Schools of Business (AACSB). Like other high quality MBA programs, the University of Scranton MBA provides for a broad business education, requiring courses in a number of functional areas. At the same time, a degree of specialization is allowed. The curriculum is designed to conform to AACSB standards.

The Program

The MBA program requires the completion of 12 courses (36 credits) divided into two categories: *Core Courses* and *Advanced Electives*.

Core Courses - 8 courses (24 credits)

Students will complete all of the MBA Core courses listed below. A student with extensive background in a particular area may have the Core course(s) requirement in that area waived. In this case, the student takes an additional Advanced Elective in fulfilling the 36 credit requirement.

Acc	502	Accounting for Management
Oim	503	Operations Management
Oim	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. The student must take a minimum of four Advanced Elective courses (12 credits). Completion of at least three Advanced Elective courses (9 credits) in one functional area constitutes a specialization.

Note: Usually the Core course in a functional area must be completed before taking Advanced Electives in that area.

MBA students may declare a “specialization” in the following areas:

- Accounting
- Finance
- Marketing
- Operations Management
- International Business

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

All students *must* take at least one “international” course from the following Advanced Electives: Acc 525, Mgt 556, Mkt 563, and Fin 584; and Special Topics courses with an international focus which may be offered periodically. The international course may be in the student’s area of specialization or in some other area. Students selecting the International Business specialization choose at least three courses from the above courses.

The student may pursue a “double specialization” by taking the required number of Advanced Electives (3 courses, 9 credits) in each specialization area. The same course cannot be used in fulfilling the specialization requirement in more than one specialization. For example, Mkt 563 (International Marketing) can be used to fulfill the 9 credit requirement in the marketing specialization or the international business specialization but not both.

Computer Literacy: 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.

Transfer of Credits

A maximum of six graduate credits may be transferred to the University of Scranton in fulfilling MBA course requirements. For regulations governing the transfer of graduate credits, see page 15 of this catalog.

Class Schedules

All classes are conducted in the evening. The class periods are 4:30-7:10 p.m. and 7:10-10:00 p.m. During the Fall and Spring semesters each course meets one night per week. (Consult Summer and Intersession schedules for class times in these terms)

Students may attend either on a part-time or full-time basis. Most part-time students take two courses in each of the Fall and Spring terms. Most full-time students take three or four courses each Fall and Spring term, plus one or two courses each Summer and Intersession term.

Graduate Assistantships

Approximately 13 graduate assistantships are available for full-time MBA students in each year. The assistants may work with School of Management faculty in their research and other academic duties, in Computing and Data Services, or in other University offices. Assistants receive a stipend and are eligible for a tuition scholarship.

Foundation Courses

All MBA students must have academic preparation in the Foundation areas listed below. Courses designed to meet this requirement are ordinarily taken at the undergraduate level. Students with an undergraduate degree in business will ordinarily have completed *all* these courses and therefore can ordinarily complete the MBA program by taking 12 courses (36 credits) as previously outlined. Students with undergraduate degrees in disciplines other than business may be required to take some courses designated as "Foundation" courses. Any foundation courses required of a student will be identified in the letter of admission to the program which is provided after an examination of the student's transcript of previous academic studies.

Any disagreement with the assigned Foundation courses should be reviewed with the student's mentor shortly after receiving the letter of admission. Note: Foundation courses are frequently cited as prerequisites for MBA Core and Advanced Elective courses. Students taking the latter courses without having the assigned Foundation requirements waived will be *required* to take the necessary foundation courses before graduating.

<i>Areas Covered</i>	<i>U. of S. Undergraduate Courses</i>
Financial and Managerial Accounting	Acc 253 & 254 OR Acc 210
Mathematics	Math 106 & 107 OR Oim 210
Statistics and Introduction to Management Science	Stat 251 & Oim 351 OR Oim 211
Marketing	Mkt 351
Corporation Finance	Fin 351
Micro & Macro Economics	Eco 153 & 154 OR Eco 210
Principles of Management	Mgt 351
Business Law/Legal Environment of Bus.	Mgt 251
International Business*	Eco 351 OR Eco 475

* This is a foundation requirement *only* for students pursuing the specialization in international business.

Foundation courses may be completed 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. Also, grades in Foundation courses do not enter into the calculation of the graduate GPA. After admission into the program, Foundation, Core and Advanced Elective courses may be taken simultaneously as long as prerequisite requirements are not being violated.

Admission Requirements

The Graduate Management Admissions Test (GMAT) 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 (ETS), Box 966, Princeton, New Jersey 08540. Applicants to take the exam should be registered with ETS at least four weeks prior to the testing date. The exam will be administered on this campus on the following dates: October 19, 1996, January 18, 1997, March 15, 1997, and June 21, 1997.

Ordinarily applicants should have a total of at least 975 points based on the formula:

$$200 \times [\text{undergraduate GPA}] + [\text{GMAT score}]$$

Exceptions to the 975 minimum are sometimes made based on such factors as work experience and other earned degrees.

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 Test of English as a Foreign Language (TOEFL). Applicants scoring less than 550 in the TOEFL are required to satisfactorily complete a course in English Proficiency. The course must be taken prior to or during the student's first regular term at the University of Scranton.

Course Descriptions

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 regulates 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 composition 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.
- Eco 351. *Environment of International Business* 3
(Prerequisite, Eco 153 & 154 or Eco 210) This course introduces the student to the growing field of international business, touching on the economic, social and political environments of international trade and multinational corporations. International institutions and agencies that impact on international business are discussed and practical aspects of these topics are emphasized.
- Eco 475. *International Economics & Finance* 3
(Prerequisite, Eco 351) Advanced foreign trade theories and practices, balance of payments analysis, regional integration, exchange rates determination, foreign exchange markets, capital movements, and current international economic problems.
- 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
(Prerequisite, Math 106 or equivalent) Topics from differential calculus including limits, derivatives, curve sketching, marginal cost functions, and maximum-minimum problems. Integration.

- Stat 251. *Statistics for Business I* 3
 (Formerly QMS 251; Prerequisite, Math 107 or Oim 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 using MINITAB.
- Oim 351. *Introduction to Management Science* 3
 (Formerly QMS 351; Prerequisite, Stat 251) A survey of the quantitative techniques which are used by modern managers. Topic coverage focuses on model building, linear programming methods, queuing models, project management and simulation. Emphasis is placed on the use and limits of these quantitative methods. Model analysis will be done using LINDO.
- Oim 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.
- Oim 211. *Quantitative Methods II* 3
 (Prerequisite, Math 106 & 107 or Oim 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. *Principles of Management I* 3
 Survey course examines key aspects of organizations and their management e.g., dynamic environments and their effects, organization design and structure, roles/functions of managers, managing technology and change, global management, and alternative types of organizations. This course examines the expanding role of the manager from the traditional areas of planning, organizing, controlling and directing.
- Mkt 351. *Introduction to Marketing* 3
 (Prerequisites, Eco 153 & 154 or Eco 210) This course introduces the student to the field of marketing. An overview of the principles on which the discipline is founded is provided to students. In addition, the role that various institutions such as manufacturing firms, wholesalers and retailers, and other facilitating middlemen play in the marketplace is examined. The marketing concept is presented as the framework under which the decisions related to marketing mix variables (product, place, price and promotion) are made by organizations.
- 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, legislation law from judicial decisions, law by administrative agencies, regulation of business activity, antitrust law, consumer protection, environment and pollution control. Substantive review of tort, criminal and insurance law. Full review of property rights for both personal and real property. Attention to business organization, principal of agency, partnership and cooperation.

Core Courses

- Acc 502. *Accounting for Management* 3
(Prerequisite, Acc 210 or Acc 253 and 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.
- Oim 503. *Operations Management* 3
(Prerequisite, Stat 251 & Oim 351, or Oim 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.
- Oim 504. *Management Information Systems* 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 77.
- 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

Operations Management

- Oim 541. *Advanced Production and Operations Management* 3
(Prerequisite, Oim 503) The modeling of production inventory systems. Topics include: facility design, aggregate and hierarchical planning, inventory control, and operations scheduling. Appropriate software will be used to design, analyze, and evaluate manufacturing operations.
- Oim 542. *Applied Operations Research* 3
(Prerequisite, Oim 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.
- Oim 544. *Business Forecasting Models* 3
(Prerequisite, Oim 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.
- Oim 545. *Total Quality Management* 3
(Prerequisite, Oim 503 or consent of instructor) Total Quality Management (TQM) provides the means for the organization to define its culture and to support the constant attainment of customer satisfaction through an integrated system of tools, techniques, and training. Topic coverage focuses on applying various continuous improvement techniques as statistical process charts and assessment frameworks (e.g., Deming's philosophy, Baldrige Criteria, ISO 9000) to achieve world class quality.

Oim 546. *Business Database Management Systems* 3
(Prerequisite, Oim 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.

Oim 548. *Business Decision Support Systems* 3
(Prerequisite, Oim 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.

Oim 549. *Special Topics in Operations and Information Management* 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

Rose Sebastianelli, Associate Professor of the Department of Operations & Information Management, and holder of the Alperin Chair in Business Administration.

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

English

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

717-941-7444

<http://www.uofs.edu>

Department faculty: Professors - *Rebecca S. Beal, Ellen M. Casey, Daniel V. Fraustino, Leonard G. Gougeon, William Hill, S.J., John M. McInerney, William V. Rakauskas, Stephen E. Whittaker*; Associate Professors - *Jones DeRitter, Mary F. Engel, Michael Friedman, John M. Hill, Francis X. Jordan, Carl Schaffer*; Assistant Professors - *George W. Bellah, III, Joseph L. Quinn, S.J., Joan Robbins*.

The Department of English offers coursework leading to a Master of Arts degree in English. In addition, coursework is offered to support the Master of Science in Secondary Education with specialization in English.

Admission 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 GPA 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. For other application requirements see pages 9-10.

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 requirements for the M.A. (thesis and non-thesis) are English 500: Introduction to Research (three credits) and English 564: Studies in Literary Theory (three credits). Students must register for these courses the first semester they are offered after they have been accepted into the program. The remaining 21 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 English 564, 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, refer to the criteria outlined by the Department of Education, Secondary Education, for application procedures and degree requirements.

Course Descriptions

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
 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.

History

Dr. Michael D. DeMichele, Chair, History/Political Science
Dr. Ray Champagne, Director of Graduate Program
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Department faculty: Professors - *Raymond W. Champagne, Jr., Leonard Champney, Willis M. Conover, Michael D. DeMichele, John L. Earl, III, Frank X.J. Homer, William J. Parente, Bernard D. Williams;* Associate Professors - *Jean Wahl Harris, Robert E. Hueston, Robert Kocis, Susan Poulson;* Assistant Professors - *David Buckley, Lawrence W. Kennedy, Thomas D. Masterson, S.J., Robert W. Shaffern, Gretchen VanDyke.*

The Department of History offers coursework leading to a Master of Arts degree in History.

Admission 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 GPA 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.

Combined 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 normally in five years. Within judicious use of Summer sessions and Intersessions, some students complete the program in four years. Twelve (12) graduate history credits may be applied to satisfy the B.A. degree program requirements. 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.

A student must have an excellent GPA in all courses and have three letters of recommendation, including at least one from one of his/her history professors in order to be considered for admission to the combined B.A./M.A. program.

Students enrolled in the combined 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

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.

Chemistry, Biochemistry, Clinical Chemistry

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717-941-6389

<http://benzene.chem.uofs.edu/homepage.html>

Department faculty: Professors - *Michael C. Cann, Joseph H. Dreisbach, Maurice I. Hart, Jr., Joe A. Vinson*; Associate Professors - *Christopher Baumann, Trudy A. Dickneider, David E. Marx, Joan M. Wasilewski*; Assistant Professors - *Paul T. Buonora, Donna M. Narsavage-Heald, Larry R. Sherman.*

The Department of Chemistry offers Master of Arts and Master of Science degree programs in Chemistry, Biochemistry, and Clinical Chemistry. In addition, coursework is offered in support of the Master of Science in Secondary Education with specialization in Chemistry.

Chemistry and Biochemistry Programs

The Master of Arts program 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 GPA 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 GPA 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, Health Care 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 Care Policy
HAD 510	Hospital Administration
HRA 521	Work Motivation
HRA 534	Learning in Organizations
HRA 538	Health, Safety and Security

Students should consult with the Director of the HRA or HAD 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 conducting undergraduate laboratory sections 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. A graduate assistant receives a stipend and is eligible for a tuition scholarship. 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

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, non-polar 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. <i>Advanced Thermodynamics and Equilibrium</i>	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. <i>Polymer Chemistry</i>	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 564L. <i>Polymer Chemistry Laboratory</i>	1.5
(Pre or co-requisite, Chem 564) Laboratory experiments investigate syntheses and characterization methods for polymers, structure-property effects, and thermal analysis of polymers. (Lab fee: \$40/cr.)	
Chem 565. <i>Instrumental Electronics</i>	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. <i>Advanced Analytical Chemistry</i>	3
Theory, description, and application of modern analytical techniques with emphasis on spectroscopy, potentiometry chromatography, electrochemistry, and radiochemistry.	
Chem 571. <i>Analytical Methods</i>	3
Laboratory practice with special and analytical apparatus and methods used for process and control, and for research. (Lab fee: \$40/cr.)	
Chem 572. <i>Applied Spectroscopy</i>	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. <i>Electro-Analytic Chemistry</i>	3
Theory and application of potentiometry, polarography amperometry, coulometry, and other analytical methods.	
Chem 584. <i>Special Topics</i>	<i>Variable</i>
Current topics in chemistry, biochemistry or clinical chemistry offered by members of the Department.	
Chem 590. <i>Seminar</i>	1
Current topics in chemistry and biochemistry are prepared and presented by the students.	
Chem 599. <i>M.A. Thesis</i>	2-6

Software Engineering

Prof. Richard Plishka, Chair, Computing Sciences
Dr. Yaodong Bi, Director of Graduate Program
717-941-6108
<http://www.cs.uofs.edu>

Department faculty: Professors - *John A. Beidler, C.D.P.*; Associate Professors - *Dennis S. Martin, Richard Plishka, James R. Sidbury, Charles E. Taylor, C.D.P.*; Assistant Professors - *Yaodong Bi, Paul M. Jackowitz, C.D.P., C.C.P., Robert McCloskey.*

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

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, Physical Therapy
717-941-7499
<http://www.uofs.edu>

Department faculty: Professor - *Carolyn E. Barnes*; Associate Professors - *Edmund M. Kosmahl, Gary E. Mattingly*; Assistant Professors - *Renee M. Hakim, John P. Sanko, Marie Zichettella-Caffrey*.

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 receive the MPT degree upon completion of graduate requirements. Students are expected to maintain a 2.5 GPA for each semester of their freshman year, 2.75 GPA for each semester of their sophomore year, 2.85 cumulative GPA for their junior year, and a 3.0 cumulative GPA for their senior year. Students maintaining this expectation are admitted to the graduate program in their fifth year and are expected to achieve a minimum 3.0 GPA for the fall term of their graduate year. 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.

Theology

Dr. Brigid Curtin Frein, Chair, Theology/Religious Studies

Dr. J. Brian Benestad, Director of Graduate Program

717-941-7498

<http://www.uofs.edu>

Department faculty: Professors - *J. Brian Benestad, M. Jane Kopas, O.S.F., Charles Pinches, Richard W. Rousseau, S.J., E. Springs Steele*; Associate Professors - *John Begley, S.J., Stephen J. Casey, Brigid Curtin Frein, Susan Fournier Mathews, Thomas F. Sable, S.J.*; Assistant Professors - *Dennis Linehan, S.J., Marc B. Shapiro*;
Instructor - Maria Poggi Johnson.

The Master of Arts in theology is designed to provide for serious academic study of theological topics, both historical and contemporary. The program assumes that students have a reasonable foundation in theological study and the humanities, as described below, as well as an aptitude and interest for more advanced study. The program should be of interest to clergy and religious, to teachers, and to lay persons of any denominational background.

Admission Requirements

Applicants must possess a baccalaureate degree from an accredited institution and have a solid background in the humanities. Such a background would almost certainly be assured with at least 9 credits in philosophy and 15 credits in theology/religious studies. However, other combinations of credits may be satisfactory. Students who lack the necessary undergraduate preparation but otherwise show promise of success in the program may be provisionally accepted, contingent on completion of certain undergraduate courses. An undergraduate GPA of at least 2.75 (4.00 scale) is expected. Scores from standardized graduate admissions tests are not uniformly required but may be requested in certain cases. For the normal Graduate School practices in processing and classifying applications, see pages 9-10 of this catalog.

Program Requirements

The Master of Arts in theology requires completion of thirty (30) credits of graduate study. Students may select a thesis or non-thesis option.

Under the *thesis* option, the student completes 24 credits of course work and devotes six credits to the thesis. The thesis should be a critical study consisting of no less than 12,000 words, completed under the direction of a faculty mentor. It will include a thesis defense.

Under the *non-thesis* option, the student completes 30 credits of course work and takes a comprehensive exam. The exam is a three hour written exam testing the student's overall understanding of theology.

Core requirements. The following 5 courses are required of all students:

Old Testament Exegesis T/RS 500

New Testament Exegesis T/RS 501

Readings in Moral Theology T/RS 542

Systematic Theology: One of the following T/RS 535, 552, 553 or 554

History: One of the following T/RS 521, 536, or 537

Electives. Students take 15 elective credits. In the thesis option, 9 credits are taken in courses and 6 credits are devoted to the thesis. In the non-thesis option, all 15 credits are taken in courses. Selection of courses for the elective part of the program should be made in consultation with a faculty mentor. By judicious selection of courses, students may form a concentration in such areas as Eastern Christian Studies, Scripture, or other areas.

Course Descriptions

Credits

- T/RS 500. *Old Testament Exegesis* 3
An introduction to the primary methods and problems of Old Testament interpretation focusing on the contents, historical background and theological import of major passages. Among the specific topics studied will be source, form and redaction criticism as well as more recent approaches to the text such as structuralist exegesis, narrative and feminist criticisms.
- T/RS 501. *New Testament Exegesis* 3
An introduction to the primary methods and problems of New Testament interpretation focusing on the contents, historical background and theological import of major passages. Among the specific topics studied will be form and redaction criticism along with recent critical approaches to the text such as structuralist exegesis, narrative and feminist criticisms.
- T/RS 521. *The Church from Medieval to Modern Times* 3
A survey of the development of Christian life and thought from the Middle Ages through the Renaissance, Reformation, development of the New World, the industrial revolution and the 20th century.
- T/RS 525. *Roman Catholicism Today* 3
An overview of four significant areas of contemporary Roman Catholicism: its historical side, worldview, ritual and ethics and contemporary trends.
- T/RS 530. *Central Issues in the Philosophy of Religion* 3
A study of such central problems in the philosophy of religion as the problem of evil, the meaning of religious language and the question of the self.
- T/RS 531. *Narrative Theology* 3
A study of the contemporary development of narrative as an essential element of interpretation of biblical and systematic theology.
- T/RS 535. *The Sacraments of Initiation* 3
After an overview of recent developments in sacramental and liturgical theology the course will focus upon the rites of the sacraments of initiation. The scriptural, liturgical and patristic sources will be read as the basis of new sacramental models.
- T/RS 536. *Three Councils of the Church that Shaped History* 3
An examination of the background, history, ideas and influence of the Councils of Trent, Vatican I and Vatican II using texts from the Councils themselves.
- T/RS 537. *Great American Catholic Thinkers* 3
A study of the life and ideas developed from selections from Bishop England, Orestes Brownson, Bishop Spalding, Isaac Hecker, Bishop Hughes, Msgr. John Ryan, Archbishop Ireland, Dorothy Day, Dom Virgil Michel and John Courtney Murray, S.J.
- T/RS 540. *Sources of Christian Moral Thought* 3
An examination of the intellectual foundations of moral thought in Western Christianity as well as the way they survive in contemporary ethics and theology. Among sources examined will be Aristotle, Augustine, Aquinas, Kant, Mill, Nietzsche, H.R. Niebuhr and other contemporary theologians.
- T/RS 541. *The Development of Catholic Moral Theology* 3
A study of the history and development of Catholic moral theology beginning with Aquinas through manualism to the contemporary scene. It will include American moral thinking such as proportion-alism in relation to Papal teaching and Protestant ethics. Readings will be drawn from Aquinas, J.C.

Murray, Leo XIII, John Paul II, C. Curran and others.

- T/RS 542. *Readings in Moral Theology* 3
An exploration, based on a wide variety of reading from patristic, medieval and contemporary sources, of some typical themes of fundamental moral theology as well as analysis of the actual place of virtue in Catholic moral theology.
- T/RS 543. *Catholic Social Thought* 3
A study of the origins and principles of Catholic teachings on the political and social order. Reading will be drawn from Augustine, Thomas Aquinas, Thomas More, papal encyclicals from *Rerum Novarum* through *Centesimus Annus*, Vatican Council II, and selected contemporary scholars writing on liberalism, public morality, law and religion.
- T/RS 544. *Liturgical and Sacramental Development* 3
An overview of the liturgical, sacramental and theological development in the Church through various eras of her history.
- T/RS 552. *Eastern Christian Spirituality* 3
A study of the meaning of the spiritual life for Eastern Christian writers with particular emphasis on St. Athanasius, St. Gregory of Nyssa and St. Gregory Palamas. Themes such as prayer, image and likeness with God, discernment of spirits, hesychasm and iconography will be discussed.
- T/RS 553. *Theology of the Byzantine Churches* 3
Beginning with a survey of the main developments of Byzantine theology, this course examines the important contributions of Eastern Christian thinkers in shaping the patristic heritage of the Church. It then examines characteristics of Byzantine theology in contemporary attempts to articulate our life in Christ.
- T/RS 554. *The Trinity in Early Christian History* 3
An in-depth analysis of the hellenization process of Christian theology through a study of the influences of Platonic, Gnostic, and Plotinian thought structures on the development of such key Christian concepts as person, substance, nature, relation in the Holy Trinity, creation theology and christology. There will be a particular emphasis on the thought of Athanasius, Basil the Great, Gregory of Nyssa, Augustine, Maximus, and Gregory of Palamas.
- T/RS 584. *Special Topics* 3
Selected topics of current interest offered on a variable schedule.
- T/RS 599. *Theology: Thesis* 3-6

Nursing

Dr. Patricia Harrington, Chair, Nursing
Dr. Mary Jane Hanson, Director of Graduate Program
717-941-4060
<http://www.uofs.edu>

Department Faculty: Professor - *Patricia A. Bailey, R.N.*;
Associate Professors - *Dona Carpenter, R.N., Marian Farrell, R.N., Rosellen M. Garrett, CRNP, Sharon Hudacek, R.N., Georgia L. Narsavage, R.N., Margarete Lieb Zalon, R.N.C.S.*; Assistant Professors - *Linda H. Desmond, R.N., Cheryl A. Fuller, R.N., Mary Jane Hanson, Patricia Harrington, R.N., Mary E. Muscari*; Instructor - *Mary Jane DiMattio*; Lecturer - *Laurel Pierangeli*

The Master of Science Degree in Nursing prepares registered nurses (RN) as Family Nurse Practitioners (FNP) with a focus on rural health care. A post-master's certificate program is also available for RNs who already have a master's degree in nursing and who wish to become Family Nurse Practitioners. Graduates will be eligible for both American Nurses' Credentialing Center and American Academy of Nurse Practitioner certification as FNP's.

Program Objectives

The Family Nurse Practitioner graduate will be able to: 1) perform in the advanced practice role of nurse practitioner, addressing family functioning and complex family health problems; 2) synthesize theory and practice with integration of the FNP roles as health care provider, advocate, teacher, consultant, leader, and researcher; 3) address professional issues in health care policy; and 4) utilize FNP roles to improve health outcomes.

Admission Requirements

An applicant for the *degree program* must possess a baccalaureate degree in nursing from an NLN (National League for Nursing) accredited program; have an undergraduate GPA of at least 3.0 or other evidence of ability to successfully complete a graduate program such as grades in other post-baccalaureate courses, scores from exams, or a record of progressively higher work experiences; and be licensed as a registered nurse in the state of Pennsylvania. The applicant should have a minimum of one year of direct clinical nursing practice and have satisfactorily completed undergraduate or equivalent approved courses in (a) basic physical assessment and (b) statistics. The applicant must submit three professional references and a brief (300 word) essay identifying career goals, demonstrating communication and writing skills. A personal interview with the program director or a faculty member to clarify goals and objectives is required.

Applicants for the *certificate program* must possess a master's degree in nursing from an NLN accredited program. Additionally, they must comply with the same admission requirements as for the degree program (except for the brief essay) as listed above.

For both the degree and certificate programs, students may begin *only* in the *fall* semester of *odd*-numbered years (1995, '97, '99, ...). Applications must be submitted by

March 1 preceding the entering fall term. Applicants must be accepted into the Graduate School before starting classes.

Scheduling

Courses are offered Tuesday and Thursday evenings. Clinical preceptorships are arranged to meet the needs of the individual student and preceptor. Students will be able to complete clinical preceptorships during intersessions and summers, provided that they have completed the required hours before starting the next clinical course. Post clinical seminars are held on Tuesday evenings.

Curricula

The program is offered as a 46 credit master's degree as an FNP for baccalaureate prepared nurses, and as a 32 credit certificate FNP program for nurses already holding a nursing master's degree. Course content provides the necessary framework for both practice and role development. Students provide advanced nursing care for families through the life cycle using obstetric/gynecological (women's health), pediatric (children's health), adult and geriatric primary care including use of diagnostic and management skills. In addition, Nurs 583: Independent Study may be utilized to perform a research project, to enhance an area of primary practice, such as women's health, or to take an elective that will enhance or broaden the student's knowledge base.

Thesis Option: Candidates for a Master of Science in Nursing may opt to do a thesis as their independent study by taking Nurs 599 for five (5) credits in place of Nurs 583 and the free elective. Those who opt to do so are governed by the University of Scranton graduate thesis policy.

Academic Regulations: Graduate nursing students are expected to conform to the regulations stated in both the University of Scranton Graduate Catalog and the Department of Nursing Graduate Student Handbook.

Comprehensive Examination: All Family Nurse Practitioner students are expected to successfully complete a comprehensive examination as part of their graduation requirements.

Two Year Full Time Program

<i>Course</i>			<i>Credits</i>
		<i>First Year</i>	
Fall	Nurs 510	Advanced Pathophysiology	3
	Nurs 520	Advanced Clinical Pharmacology	3
	Nurs 530	Advanced Family Clinical Assessment	1
	Nurs 541	Family Health Promotion	2
	Nurs 542	Family Clinical Practicum I	1
	Nurs 542L	Family Clinical Lab I	2
Spring	Nurs 551	Health Problems in the Developing Family	3
	Nurs 552	Family Practicum II	1
	Nurs 552L	Family Clinical Lab II	3
	Nurs 593	Research Methodology (Core)***	3
	Free Elective***		3
		<i>Second Year</i>	
Fall	Nurs 561	Health Problems in the Established Family	3
	Nurs 562	Family Practicum III	1
	Nurs 562L	Family Clinical Lab III	3
	Nurs 590	Rural Health (Variable to 3 credits)	2
	Nurs 594	Theory and Research Application	2
Spring	Nurs 571	Family Health Synthesis	2
	Nurs 572	Family Clinical Practicum IV	1
	Nurs 572L	Family Clinical Lab IV	3
	Nurs 583	Independent Study*** (Variable to 6 credits)	2
	Nurs 591	Issues in Advanced Nursing Practice (Core)	2

Four Year Part Time Program

<i>Course</i>			<i>Credits</i>
<i>First Year</i>			
Fall	Nurs 510	Advanced Pathophysiology	3
	Nurs 520	Advanced Clinical Pharmacology	3
Spring	Nurs 593	Research Methodology (Core)***	3
		Free Elective***	3
<i>Second Year</i>			
Fall	Nurs 590	Rural Health (Variable to 3 credits)	2
	Nurs 594	Theory and Research Application	2
Spring	Nurs 583	Independent Study*** (Variable to 6 credits)	2
	Nurs 591	Issues in Advanced Nursing Practice (Core)	2
<i>Third Year</i>			
Fall	Nurs 530	Advanced Family Clinical Assessment	1
	Nurs 541	Family Health Promotion	2
	Nurs 542	Family Clinical Practicum I	1
	Nurs 542L	Family Clinical Lab I	2
Spring	Nurs 551	Health Problems in the Developing Family	3
	Nurs 552	Family Practicum II	1
	Nurs 552L	Family Clinical Lab II	3
<i>Fourth Year</i>			
Fall	Nurs 561	Health Problems in the Established Family	3
	Nurs 562	Family Practicum III	1
	Nurs 562L	Family Clinical Lab III	3
Spring	Nurs 571	Family Health Synthesis	2
	Nurs 572	Family Clinical Practicum IV	1
	Nurs 572L	Family Clinical Lab IV	3

*** Six of these nine credits may be considered for transfer credits for RNs with a non-nursing masters. Each credit of Clinical equals four hours so that total Clinical time is 840 hours (69% of total program). Two-thirds of the program hours must be clinically oriented. If necessary, students will be allowed to extend their Practicum hours into the Intersession and Summer Sessions.

Act 34 Clearance: All Family Nurse Practitioner students are required to submit a completed Act 34 clearance to the Nursing Department prior to being placed in any clinical experience that would put them in direct contact with children. This clearance is collected by the University on behalf of the preceptor site where the clinical practicum will occur. The completed Act 34 form will be delivered to the preceptor site by the Nursing 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 preceptor site where the clinical practicum will occur.

Certificate Only Two Year Full Format

<i>Course</i>			<i>Credits</i>
	<i>First Year</i>		
Fall	Nurs 510	Advanced Pathophysiology	3
	Nurs 520	Advanced Clinical Pharmacology	3
	Nurs 530	Advanced Family Clinical Assessment	1
	Nurs 541	Family Health Promotion	2
	Nurs 542	Family Clinical Practicum I	1
	Nurs 542L	Family Clinical Lab I	2
Spring	Nurs 551	Health Problems in the Developing Family	3
	Nurs 552	Family Practicum II	1
	Nurs 552L	Family Clinical Lab II	3
	<i>Second Year</i>		
Fall	Nurs 561	Health Problems in the Established Family	3
	Nurs 562	Family Practicum III	1
	Nurs 562L	Family Clinical Lab III	3
Spring	Nurs 571	Family Health Synthesis	2
	Nurs 572	Family Clinical Practicum IV	1
	Nurs 572L	Family Clinical Lab IV	3
			32

Students wishing to complete a certificate on a part-time basis should meet with the program coordinator.

Course Descriptions

	<i>Credits</i>
Nurs 510. <i>Advanced Pathophysiology</i>	3
Utilizing principles from anatomy and physiology, this lecture course presents the pathophysiology underlying common disease entities across the life span, including their associated signs and symptoms and their appropriate laboratory data.	
Nurs 520. <i>Advanced Clinical Pharmacology</i>	3
Lectures focus on the principles of drug therapy, mechanisms of action, side effects, drug interactions, general concepts in the selection of pharmaceutical agents in clinical family practice, and prescriptive authority.	
Nurs 530. <i>Advanced Family Clinical Assessment</i>	1
Lecture and laboratory provide theory and skills needed to obtain comprehensive histories and to perform comprehensive physical examinations on clients throughout the life span. This course will be given during the first half of the semester. Students are required to successfully complete both a written and a performance examination on basic interviewing and physical assessment of the healthy adult prior to taking this course. A non-credit review course will be made available prior to these examinations for those who find it necessary.	
Nurs 541. <i>Family Health Promotion</i>	2
(Pre or corequisites, Nurs 510 & 530; corequisite, Nurs 542) This lecture provides an introduction to primary health care by providing concepts and theories related to family process development, health promotion, sociocultural aspects, and common health deviations across the life span.	

Nurs 542.	<i>Family Clinical Practicum I</i>	1
Nurs 542L.	<i>Family Clinical Lab I</i>	2
(Pre or corequisites, Nurs 510 & 530; corequisite, Nurs 541) Clinical application of principles discussed in Family Health Promotion as well as Advanced Family Clinical Assessment for clients across the life span. Students will be precepted at clinical sites during the last half of the semester. (24 hours of lab during last 7 weeks of semester which includes 2 hour per week seminar)		
Nurs 551.	<i>Health Problems in the Developing Family</i>	3
(Prerequisites, Nurs 541 & 542; pre or corequisite, Nurs 520; corequisite, Nurs 552) Lecture focuses on the epidemiology, differential diagnoses and management of acute and chronic health problems and illnesses of the developing family.		
Nurs 552.	<i>Family Clinical Practicum II</i>	1
Nurs 552L.	<i>Family Clinical Lab II</i>	3
(Prerequisites, Nurs 542 and a final grade of B or higher in Nurs 530 and Nurs 541; pre or corequisite, Nurs 520; corequisite, Nurs 551) Clinical application of theoretical principles presented in health problems of the developing family. Students will be placed in a variety of clinical settings that provide opportunities to work with clients in these stages of the life span. (16 hours of lab which includes 2 hours per week seminar)		
Nurs 561.	<i>Health Problems in the Established Family</i>	3
(Prerequisites, Nurs 552 and a final grade of B or higher in Nurs 551; corequisite, Nurs 562) Lecture focuses on the epidemiology, differential diagnoses and management of acute and chronic health problems and illnesses of the established family.		
Nurs 562.	<i>Family Clinical Practicum III</i>	1
Nurs 562L.	<i>Family Clinical Lab III</i>	3
(Prerequisites, Nurs 520, 551 & 552; corequisite, Nurs 561) Clinical application of theoretical principles presented in health problems of the established family. Students will be placed in a variety of clinical settings that provide opportunities to work with clients in these stages of the life span. (16 hours of lab which includes 2 hours per week seminar)		
Nurs 571.	<i>Family Health Synthesis</i>	2
(Prerequisites, Nurs 562 and a grade of B or higher in Nurs 561; corequisite, Nurs 572) Synthesis of concepts from health promotion, health problems and supporting courses to utilize the nurse practitioner roles in more complex family health care problems.		
Nurs 572.	<i>Family Clinical Practicum IV</i>	1
Nurs 572L.	<i>Family Clinical Lab IV</i>	3
(Prerequisites, Nurs 561 & 562; corequisite, Nurs 571) Clinical application of synthesis of theoretical principles from health promotion, health problems, and supporting courses. Students will be placed in a variety of settings that will provide opportunities to utilize the roles of the nurse practitioner with families with more complex health problems. (16 hours of lab which includes 2 hours per week seminar)		
Nurs 583.	<i>Independent Study</i>	<i>Variable to 6</i>
Students choose one of the following options: 1) a clinical practicum in a specialized primary health care setting to focus on one or more of the nurse practitioner roles; 2) the completion of a research project; 3) a three credit nonnursing elective with faculty approval; 4) a thesis.		
Nurs 590.	<i>Rural Health</i>	<i>Variable to 3</i>
Seminar on the interaction between rural environments and the health care needs of rural residents. Emphasis will be on specific populations and illnesses, rural health care policy, and methods to recruit and retain nurse practitioners in rural health care.		

- Nurs 591. *Issues in Advanced Nursing Practice* 2
This seminar provides students with the opportunity to analyze contemporary issues and trends as they relate to advanced practice, including role development, legal issues, health care policy, standards of practice and ethics.
- Nurs 593. *Research Methodology* 3
This didactic course presents an introduction to the concepts and process of research, including problem formulation, rights of human subjects, research design, sampling, instrument evaluation, and data collection and analysis strategies. It provides students with the opportunity to analyze and critique various quantitative and qualitative nursing research studies, including their implications for utilization.
- Nurs 594. *Theory and Research Application* 2
(Prerequisite, Nurs 593) This didactic and seminar course provides an intermediate study of levels of theory construction and the research process with emphasis on the integration of theoretical elements in the development of a research proposal.
- Nurs 599. *Nursing: Thesis* 2-5

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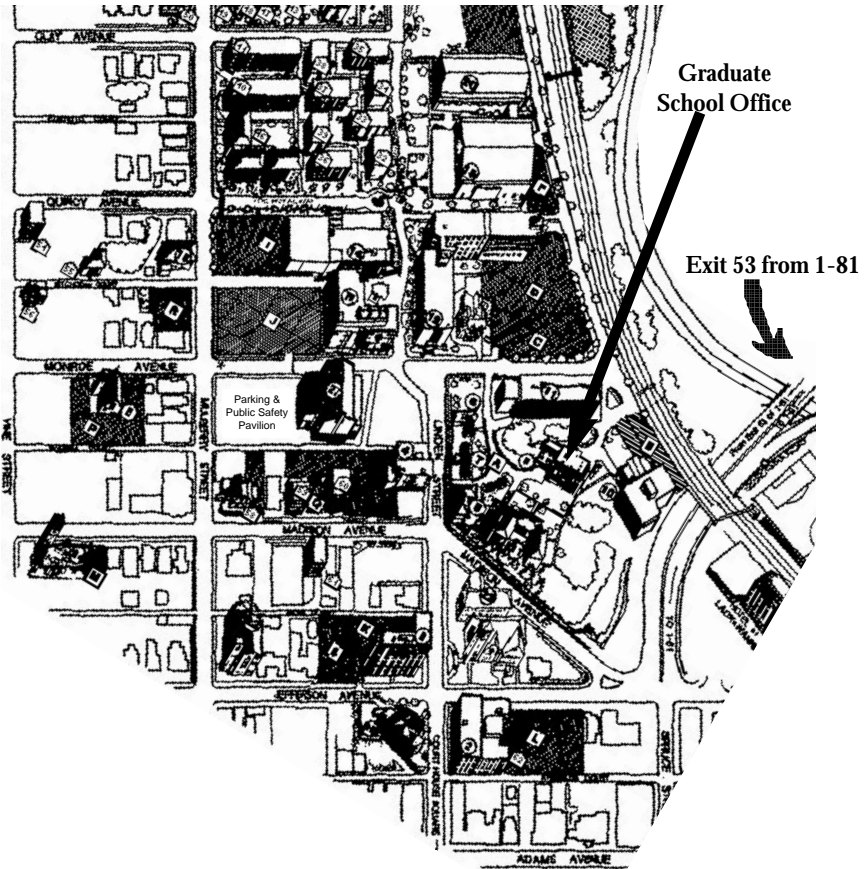
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Campus Map



Legend for Map

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| 3 | O'Hara Hall | 18 | Claver Hall |
| 4 | The Gallery | 19 | Weinberg Memorial Library |
| 9 | The Estate | 20 | Byron Recreation Complex |
| 10 | Alumni Memorial Hall | 23 | Houlihan-McLean Center |
| 11 | Loyola Hall | 26 | Hyland Hall |
| 12 | St. Thomas Hall – Center for
Public Initiatives | 27 | Center for Literary and
Performing Arts |
| 14 | Gunster Center | 30 | Wellness Center |



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